

2020년 봄 학술논문발표회 및 제96회 정기총회

2020 KPS Spring Meeting

2020년 7월 13일(월) - 15일(수)
Virtual Conference



● Carbon in the top layer
● Carbon in the bottom layer

2020년 봄 학술논문발표회 및 제96회 정기총회

KPS 한국물리학회
The Korean Physical Society

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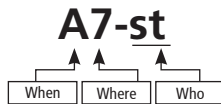
2020년 7월 13일(월) - 15일(수)

Virtual Conference

KPS 한국물리학회
The Korean Physical Society

- Carbon in the top layer
- Carbon in the bottom layer

세션코드 읽는 법 (How to read session codes?)



(1) The capital letter : when

- | | |
|--------------------------|----------------------------|
| A: Monday 09:00 – 10:48 | E: Tuesday 11:10 – 12:58 |
| B: Monday 11:10 – 12:58 | F: Tuesday 15:20 – 17:08 |
| C: Monday 15:20 – 17:08 | G: Wednesday 09:00 – 10:48 |
| D: Tuesday 09:00 – 10:48 | H: Wednesday 11:10 – 12:58 |

(2) The number : where

- 1: the first room. 2: the second room. But, they are not physical room numbers, 101, 102 etc. (Exception- P1: 1st poster session, P2: 2nd poster session)

(3) The last two letters : who should attend the session (who or which division organizes the session)

- | | |
|-------------------------------------|---------------------------------------|
| • ap : applied physics | • op : optics and quantum electronics |
| • as : astrophysics | • pa : particle physics |
| • at : atomic and molecular physics | • pl : plasma physics |
| • bp : biological physics | • se : semiconductor physics |
| • co : condensed matter physics | • st : statistical physics |
| • nu : nuclear physics | • te : physics teaching |





C o n t e n t s

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- 05 2020 한국물리학회 봄 학술논문발표회 및 제96회 정기총회 전체일정표
- 11 구두발표논문 시간표
- 97 포스터발표논문 시간표
- 163 발표자 색인

이번 호의 표지는 박문집, 김영국, 조길영, 이성빈 회원의 최근 논문 Higher-Order Topological Insulator in Twisted Bilayer Graphene, Phys. Rev. Lett. 123, 216803 (2019) 에서 모티브를 채택했다. 이 논문에서는 뒤틀린 이중층 그래핀에서 각도에 상관없이 나타나는 고차-위상학적 절연체상을 연구하였다. 이번 봄 학술논문발표회 G5-co.01 세션에서 박문집 회원이 관련 주제에 대해서 발표할 예정이다.

등록 및 발표장 안내(Registration & Conference Room)

1. Epitome

Any KPS members can download the pdf files on the KPS homepage.(<http://www.kps.or.kr>)

2. Membership & Registration Fee

Category		Fee (KRW)	Category		Fee (KRW)
Registration	Fellow/Regular member	130,000	Subscription (Fellow/Regular member)	1 journal	80,000
	Student member	70,000		2 journals	120,000
	Nonmember (general)	300,000			
	Nonmember (invited speaker or student)	150,000	Subscription (Student member)	1 journal	40,000
Fellow	100,000	2 journals		60,000	
Regular member	50,000				
Membership	Student member	20,000	Enrolling fee	New member	10,000

3. Virtual Conference Rooms

Division	Oral sessions (Zoom rooms)	Poster sessions	Special sessions (Zoom rooms)
Particle and Field Physics	01, 02	Virtual Poster rooms	<ul style="list-style-type: none"> • General Assembly: 17 • KPS Fellow Meeting: 17 • APCTP SF 연극 <당신을 기다리고 있어>: 17
Nuclear Physics	03		
Condensed Matter Physics	04, 05, 06		
Applied Physics	07, 08		
Statistical Physics	09		
Physics Teaching	10		
Plasma Physics	11		
Optics and Quantum Electronics	12		
Atomic and Molecular Physics	13		
Semiconductor Physics	14		
Astrophysics	15		
Biological Physics	16		

4. Oral Presentations

- All oral sessions will be essentially virtual meetings and conducted via Zoom.
- You should pre-record your video presentation, which will be broadcasted online during the scheduled time. (Q&A will be conducted in real time. An invited speaker has an option to deliver his/her presentation in real time.)
- Please adhere to the time limit for your presentation, which includes setup, presentation, and Q&A: 12 minutes for a contributed talk and 24 (or 36) minutes for an invited talk.

5. Poster Presentations

- All poster sessions will be essentially virtual meetings and are accessible online at the KPS homepage during the Conference (July 13th, 09:00 ~ July 15th, 18:00).

6. Best Presentation Awards

- The Best Presentation Awards recognize outstanding presentations made by student members and are awarded by the KPS in order to encourage students to carry out excellent research.
- Candidates nominated for the Best Poster Presentation Awards are required to attend the virtual meeting arranged by the Award Committee and will be selected based on scientific significance and excellence of presentation and discussion. The schedule for the virtual meeting will be announced soon.
- Every awardee will be posted in the KPS homepage for recognition just after the Conference and a certificate will be mailed to the presenter according to the mailing address of the corresponding author.

7. No-Show Policy

- Presenters who do not submit the presentation materials within the deadline or do not present at the session without a call to cancel (contact info: webzine@kps.or.kr, 02-556-4737(ext. 5)) are considered No-Show.
- In case of No-Show, the corresponding abstract will be eliminated from the program list. Presenters who No-Show may see limitations to present at the KPS meetings in the future.

Program for 2020 KPS Meeting

Virtual Conference (July 13-15, 2020)

Division Session	Particle phys		Nuclear phys	Condensed matter phys			Applied phys		Statistical phys	Physics Teaching	Plasma phys	Optical phys	Atomic & molecular phys	Semiconductor phys	Astrophys	Biological physics	Special session	
	Session A 09:00~10:48							A7-ap Photonics	A8-ap Nanodevice	A9-st Complex Systems I								
Break 10:48~11:10																		
Session B 11:10~12:58	B1-pa Accelerator I	B2-pa Field and string	B3-nu Had. Phys. & Nud. Reac.	B4-co [F] Atomic scale imaging I	B5-co [F] Low-D QM I	B6-co Magnetism	B7-ap [F] Perovskites I	B8-ap [F] Organic materials	B9-st Nonequilibrium Systems				B12-op Quantum optics and biophotonics				B16-bp Molecular bio. phys.	
Lunch Break 12:48~14:00																		
Poster P1 14:00~15:00	Poster 1 (Best Poster Evaluation)																	
Break 15:00~15:20																		
Session C 15:20~17:08	C1-pa Accelerator II	C2-pa High E phys-phenomenology	C3-nu Had. Phys.	C4-co [F] Atomic scale imaging II	C5-co [F] Low-D QM II	C6-co Superconductivity	C7-ap [F] Perovskites II	C8-ap [F] Biosensor	C9-st Complex Systems II			C11-pl Plasma Physics	C12-op Lasers and nano-optics				C16-bp Cellular & Theoretical & computational	
General Assembly 17:20~19:00																	M17-or General Assembly & Fellow Meeting	
Session D 09:00~10:48	D1-pa Accelerator III		D3-nu Nud. Reac. & Struc.	D4-co Strongly Correlated I	D5-co [F] Topological Materials	D6-co [F] Low D oxides	D7-ap [F] Ferroelectricity I	D8-ap Nanomaterials I	D9-st Complex Sys & Bio Phy	D10-te [F]New direction of phys. edu.			D13-at AMO Physics I	D14-se Device	D15-as Astrophysics Theories			
Break 10:48~11:10																		
Session E 11:10~12:58	E1-pa Accelerator IV	E2-pa Accelerator V	E3-nu Heavy-ion coll.	E4-co Strongly Correlated II	E5-co [F] Quantum Coherence	E6-co Computational Physics I	E7-ap [F] Ferroelectricity II	E8-ap [F] Neuromorphic Device	E9-st Granular Sys & Soft Mat	E10-te phys. edu. in diverse setting			E13-at AMO Physics II	E14-se Nano Materials	E15-as Astrophysics Exp./Obs. I	E16-bp [F]Cell Physics		
Lunch Break 12:48~14:00																		
Poster P2 14:00~15:00	Poster 2 (Best Poster Evaluation)																	
Break 15:00~15:20																		
Session F 15:20~17:08	F1-pa Accelerator VI	F2-pa Accelerator VII	F3-nu Nud. Exp.	F4-co Strongly Correlated III	F5-co Nano and mesoscopic I	F6-co Computational Physics II	F7-co [F] Quantum Device	F8-ap Nanomaterials II	F9-st Chaos & Nonlinear Dyn	F10-te [F]Present of phys. edu.				F14-se Growth and Properties	F15-as [F] Wormholes and Gravitation	F16-bp [F] Emerging Techniques		
Session W 19:00~21:00																	W17-or APCTP SF 연극	
Session G 09:00~10:48	G1-pa Non-accelerator		G3-nu Nucl. Exp. & Astrophys.	G4-co Strongly Correlated IV	G5-co Nano and mesoscopic II	G6-co Other/ Instruments	G7-ap Advanced materials I	G8-ap Nanomaterials III								G15-as Astrophysics Exp./Obs. II		
Break 10:48~11:10																		
Session H 11:10~12:58				H4-co [F] Ferroic Materials	H5-co Surface/ interface	H6-co Computational Physics III	H7-ap Advanced materials II											

■ Particle physics
 ■ Nuclear physics
 ■ Condensed matter physics
 ■ Applied physics
 ■ Statistical physics
 ■ Physics teaching
 ■ Plasma physics
■ Optics and quantum electronics
 ■ Atomic & molecular physics
 ■ Semiconductor physics
 ■ Astrophysics
 ■ Biological physics
 ■ Special session

Sessions organized by KPS committees

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G5.05 Topological surface states in NiTe ₂	14

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[A8-ap] Nanodevice	16
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[B4-co] [F] Atomic scale imaging & spectroscopy I	22
[B5-co] [F] Low-D QM: black phosphorus & geometric phase I	23
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[C3-nu] Hadron Physics	33
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[C5-co] Nano-Meso/Surface-Interface	35
[C6-co] Magnetism/Superconductivity	36
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[C8-ap] [F] Recent developments of biosensor technology	38
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[C12-op] Lasers and nano-optics	41
[C13-C15] No Session	41
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[E7-ap] [F] Ferroelectricity in doped-HfO ₂ thin films II	60
[E8-ap] [F] Emerging Neuromorphic Materials and Devices	61
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[F7-ap] [F] Applications of Quantum Information Devices	74
[F8-ap] Nanomaterials II	75
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[F14-se] Semiconductor Growth, Transport and Optical Properties	77
[F15-as] [F] Wormholes and Gravitation	78
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P1: Hanging a poster -July 13(Mon) 09:00- July 15(Wed) 12:58

*Evaluation meeting for outstanding Presentation Award - July 13(Mon) 14:00-15:00

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P2: Hanging a poster -July 13(Mon) 09:00- July 15(Wed) 12:58

*Evaluation meeting for outstanding Presentation Award - July 14(Tue) 14:00-15:00

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구두발표논문 시간표

Oral session schedule

학회주관세션 Sessions organized by KPS Committees

[W17-or] APCTP SF 연극 <당신을 기다리고 있어>

2020. 07. 14 Tuesday 19:00~21:00

Room: 17

좌장 : 손승우 한양대학교 응용물리학과

Chair : SON Seung-Woo (Hanyang University)

APCTP에서 김보영 작가의 SF 연극 <당신을 기다리고 있어>를 온라인으로 상영하고자 합니다. 대중적 재미를 기반으로 한 연극이지만 우주와 인류, 시공간 초월 등 과학적 소양을 포함하고 있어 전문성과 재미를 모두 충족시킬 프로그램입니다.

작품 내용: 연극 <당신을 기다리고 있어>는 작가의 동명 소설을 원작으로 합니다. 작품은 작가의 팬이었던 독자가 프러포즈를 하기 위해 작가에게 부탁하여 쓰여진 서간문 형식의 이야기입니다. 광속으로 성간 여행이 가능해진 시대에 주인공 약혼자는 다른 별로 이주하는 가족을 배웅하기 위해 지구 시간으로 9년이 걸리는 알파 센타우리에 다녀와야 하는 내용으로 시작합니다. 주인공이 9년의 기다림을 두 달로 단축하기 위해 상대성의 원리에 따라 태양계를 광속으로 운행하는 '기다림의 배'에 올라타면서 본격적인 '과학로맨스'가 진행됩니다.

작가 소개: 김보영 작가는 현재 한국 SF 소설을 대표하는 소설가 중 한 명입니다. 2004년 「촉각의 경험」 제1회 과학기술창작문에 공모전 중편 부문 수상 2015년 단편 「진화신화」 미국 SF웹진 '클락스월드매거진'에 번역되어 소개 2021년 미국 최대 출판 그룹인 '하퍼콜린스'를 통해 「당신을 기다리고 있어」 등 3권의 소설 출간 예정 봉준호 감독 <설국열차> 자문 등 SF와 연계되는 다방면에서 활동 중 저서 「저 이승의 선지자」 「천국보다 성스러운」 「7인의 집행관」 등

상영 방법: 온라인 중계

LIST of Award Winners' Presentatoin

[2020 젊은통계물리학자상 수상자 발표]

B9.01 July 13 (Mon) 11:10 - 11:34

Room: 09

Effect of social structure on perception bias / 이은^{*1} (*University of North Carolina at Chapel Hill, USA)

[2020 계원상 수상자 발표]

E10.04 July 14 (Tue) 11:46 - 11:58

Room: 10

과학교과서 텍스트의 계량적 분석을 이용한 과학 개념어의 생산적 지식 교육 방안 탐색 / PARK Yune

Bae^{*1}, YUN Eunjeong¹ (¹Kyungpook National University)

[2020 김덕주 신진과학자상 수상자 발표]

E6.05 July 14 (Tue) 12:10 – 12:22

Room: 06

Extending magnetic force theory JX code to plane-wave DFT / YOON Hongkee¹, HAN Myung Joon^{*1} (¹KAIST)

[2020 CAP Young Researcher Award 수상자 발표]

B7.02 July 13 (Mon) 11:34 – 11:58

Room: 07

Ion transport in lead halide perovskites in the dark and under light / KIM Gee Yeong^{*1,2} (¹KIST, ²Physical Chemistry of Solids, Max Planck Institute for Solid State Research)

[2020 천체물리학상 수상자 발표]

D15.01 July 14 (Tue) 09:00 – 09:12

Room: 15

General relativistic three dimensional simulations of the accretion disks onto black holes / KIM Jinho^{*1}, GARAIN Sudip Kumar¹ (¹Center for Theoretical Astronomy, KASI)

[2020 응집물질물리학 젊은과학자상 수상자 발표]

D5.03 July 14 (Tue) 10:12 – 10:48

Room: 05

A Viscous Graphene Electronic Diode / KIM Youngwook^{*1} (¹Department of Emerging Materials Science, DGIST)

[2020 수상자 발표]

G5.05 July 15 (Wed) 09:48 – 10:00

Room: 05

Topological surface states in NiTe₂ / JUNG Sung Won^{*1}, MUKHERJEE Saumya¹, KIM Timur K.¹, CACHO Cephise¹, WEBER Sophie F.², NEATON Jeffery B.² (¹Diamond Light Source, Harwell Campus, U.K., ²UC Berkeley, U.S.)

2020 July 13(Mon) 09:00-10:48

[A1-A6] No Session**[A7-ap] Photonics**

2020. 07. 13 Monday 09:00~10:48

Room: 07

좌장 : 권순홍 중앙대학교

Chair : KWON Soon Hong (Chung-Ang University)

A7.01 [09:00 - 09:12]

Low-threshold amplified spontaneous emission from a bulk CsPbBr₃ single crystal at Room temperature / JANG Joon Ik¹, KIM Donggyu¹, LIM Soo Yeon¹, STOUMPOS Constantinou², KANATZIDIS Mercouri³, CHEONG Hyeonsik¹ (¹Physics, Sogang University, ²Material science and technology, University of Crete, ³Chemistry, Northwestern University)

A7.02 [09:12 - 09:24]

DNA 오리가미를 이용한 다이아몬드 광결정 디자인 / LEE Seungwoo^{1,3,4}, PARK Sung Hun¹, PARK Haedong¹, HUR Kahyun² (¹Graduate School of Converging Sci & Tech, Korea University, ²Materials and Life Science Research Division, KIST, ³Department of Biomicrosystem Technology, Korea University, ⁴KU Photonics, Korea University)

A7.03 [09:24 - 09:36]

Self-assembled Silica Opals for Colorful Radiative Coolers / KIM Hyeon Ho¹, IM Eunji², LEE Seungwoo^{1,2} (¹Graduate School of Converging Sci & Tech, Korea University, ²Department of Biomicrosystem Technology, Korea University)

A7.04 [09:36 - 09:48]

Tunable rectification direction in molecular heterojunction with two-dimensional semiconductors / EO Jung Sun¹, SHIN Jaeho¹, WANG Gunuk¹ (¹KU-KIST Graduate School of Converging Science and Technology, Korea University)

A7.05 [09:48 - 10:00]

Lead-free CH₃NH₃BaCl₃ Perovskite Crystals with Well-defined Crystal Structure and Photoexcited Conduction for Photodetection Devices / JUNG Hye Ri¹, BARI Maryam², KIM Yejin¹, YOON Seokhyun¹, YE Zuo-Guang², JO William¹ (¹Department of Physics, Ewha Womans University, ²Department of Chemistry, Simon Fraser University)

A7.06 [10:00 - 10:12]

Fabrication and characterization of mixed-cation perovskite solar cells / LEE Sang Min², HA Na Young^{*1,2} (¹Department of Physics, Ajou University, ²Department of Energy Systems Research, Ajou University)

A7.07 [10:12 - 10:24]

Study on the structural phase transition of methylammonium lead halide perovskite single crystals by Raman scattering spectroscopy / NGUYEN Trang Thi Thu¹, KIM Yejin¹, YOON Seokhyun^{*1}, JUNG Hye Ri¹, JO William¹, BARI Maryam², YE Zuo-Guang^{*1,2} (¹Department of Physics, Ewha Womans University, ²Department of Chemistry, Simon Fraser University)

A7.08 [10:24 - 10:36]

Fabrication and optical characterization of polymeric films with surface-modified and red-fluorescent carbon quantum dots / JEON Gyu Dam², HA Na Young^{*1,2} (¹Department of Physics, Ajou University, ²Department of Energy Systems Research, Ajou University)

A7.09 [10:36 - 10:48]

Detailed Balance Analysis for Structured Solar Cells / KIM Kwangjin¹, LEE Seungwoo^{*1,2,3} (¹Graduate School of Converging Sci & Tech, Korea University, ²Department of Biomicrosystem Technology, Korea University, ³KU Photonics Center, Korea University)

[A8-ap] Nanodevice

2020. 07. 13 Monday 09:00~10:36

Room: 08

좌장 : 노유신 건국대학교

Chair : NO You-Shin (Konkuk University)

A8.01 [09:00 - 09:12]

Synergistic effect of cooperating solvent vapor annealing for high efficient planar inverted perovskite solar cells / YI Ahra¹, CHAE Sangmin¹, LEE Hanbin¹, YOON Haeun¹, KIM Hyo Jung^{*1} (¹Organic Material Science and Engineering, Pusan National University)

A8.02 [09:12 - 09:24]

Selective layer-controlled graphene exfoliation for millimetre sizes / MOON Ji-Yoon², KIM Minsoo³, SON Seok-Kyun^{*1}, LEE Jae-Hyun² (¹Department of Physics, Mokpo National University, ²Department of Energy System Research and Department of Materials Science and Engineering, Ajou University, ³School of Astronomy and Physics, The University of Manchester)

A8.03 [09:24 - 09:36]

Evolution of mechanically-assisted electromigration breakdown junction as observed in a free-standing nanostructure / KANG Seokwon¹, PARK Seondo¹, PARK Yun Daniel^{*1} (¹Department of Physics and Astronomy, Seoul National University)

A8.04 [09:36 - 09:48]

Electrical characterization of metastability in Cu(In,Ga)Se₂ thin-films devices / CHO Yunae¹, KIM Kihwan², JO William^{*1} (¹Department of Physics, Ewha Womans University, ²Photovoltaics Research Department, Korea Institute of Energy Research)

A8.05 [09:48 - 10:00]

High Performance Visible-NIR Photodetectors Based on Surface-doped InSe / JANG Hanbyeol¹, SEOK Yongwook¹, LEE Kayoung^{*1} (¹Materials Science and Engineering, GIST)

A8.06 [10:00 - 10:12]

Passivated defects and grain boundaries of Cu₂ZnSn(S,Se)₄ thin film solar cell by incorporation of sodium / PARK Ha Kyung¹, KIM Juran¹, JEONG Woo-Lim², KIM Kyung-Pil², LEE Dong-Seon², JO William^{*1} (¹Department of Physics, Ewha Womans University, ²School of Electrical Engineering and Computer Science, GIST)

A8.07 [10:12 - 10:24]

Compare of Machine Learning Algorithm to Improve Measurement Accuracy of Frequency Variation / LEE Sang-Wook^{*1}, SEO Miri¹, YANG Eunseo² (¹Ewha Womans University, ²Computer Engineering, Ewha Womans University)

A8.08 [10:24 - 10:36]

Gate-switchable rectification in isotype van der Waals heterostructure of multilayer MoTe₂/SnS₂ with large band offsets / KIM Seonyeong¹, DU Hyewon¹, KIM Taekwang¹, SHIN Somyeong¹, SONG Hyeon-kyo¹, KIM Hansung¹, KANG Dain¹, LEE Chang-Won^{*2}, SEO Sunae^{*1} (¹Sejong University, ²School of Basic Sciences, Hanbat National University)

[A9-st] Complex Systems I

2020. 07. 13 Monday 09:00~10:48

Room: 09

좌장 : 조영설 전북대학교

Chair : CHO Young Sul (Jeonbuk National University)

A9.01 [09:00 - 09:24]

Higher-order interacting networks: Introduction and current researches / KAHNG Byungnam^{*1} (¹Department of Physics & Astronomy, Seoul National University)

A9.02 [09:24 - 09:36]

Evolution of coauthorship networks in view of simplicial complex / LEE Yongsun¹, KAHNG Byungnam^{*1} (¹Department of Physics and Astronomy, Seoul National University)

A9.03 [09:36 - 09:48]

Percolation process on signed complex networks / GWAK Sang-Hwan¹, GOH Kwang-Il^{*1} (¹Korea University)

A9.04 [09:48 - 10:00]

Betweenness centrality distribution of hypergraphs / KAHNG Byungnam^{*1}, LEE Jongshin¹ (¹Department of Physics and Astronomy, Seoul National University)

A9.05 [10:00 - 10:12]

Spectra of block structured community matrix of mutualistic networks / LEE Hyunwoo¹, LEE Deok-Sun^{*1} (¹Department of Physics, Inha University)

A9.06 [10:12 - 10:24]

Neural network approach to open quantum nonequilibrium phase transition / 조민재¹, 최광종¹, 강병남^{*1} (¹서울대학교 물리천문학부)

A9.07 [10:24 - 10:36]

Hysteresis and criticality in hybrid percolation transitions / PARK Jinha², YI Sudo^{*1}, KAHNG Byungnam^{*2} (¹CCSS, CTP and Department of Physics and Astronomy, Seoul National University, ²School of Physics, KIAS)

A9.08 [10:36 - 10:48]

K-selective percolation on various networks / KIM Jung-Ho¹, GOH Kwang-Il^{*1} (¹Korea University)

Session B

2020 July 13(Mon) 11:10~12:58

B

[B1-pa] Accelerator I

2020. 07. 13 Monday 11:10~12:58

Room: 01

좌장 : 문창성 경북대학교

Chair : MOON Chang-Seong (Kyungpook National University)

B1.01 [11:10 - 11:22]

Measurement of the differential Drell-Yan cross sections at 13 TeV with the CMS detector / YOO Hwidong¹, LEE Kyeongpil² (¹Yonsei University, ²Department of physics, Seoul National University)

B1.02 [11:22 - 11:34]

A study of initial state radiation on the Drell-Yan events at $\sqrt{s} = 13$ TeV / YANG Un-ki¹, KIM Junho¹, CHOI Junho¹, JUN Won¹, LEE Sangeun¹, JEON Sihyun¹, KIM Jihun¹, SEO Hyonsan¹ (¹Department of physics and astronomy, Seoul National University)

B1.03 [11:34 - 11:46]

Search for new physics in dilepton events using asymmetry / YANG Un-ki¹, SEO HyonSan¹, LEE Sang Eun¹, JEON Si Hyun¹, JUN Won¹ (¹Department of physics and astronomy, Seoul National University)

B1.04 [11:46 - 11:58]

Measurement of the cross section for $t\bar{t}b$ production with additional jets and b jets in pp collisions at 13 TeV / KIM Tae Jeong¹, ROH Youn Jung⁴, CHOI Suyong², YU Intae³, BROCHERO Javier⁵, LEE Yonghoon³ (¹Department of Physics, Hanyang University, ²Department of Physics, Korea University, ³Department of Physics, Sungkyunkwan University, ⁴Department of Physics, University of Seoul, ⁵Department of Physics, MADRID-CIEMAT)

B1.05 [11:58 - 12:10]

Measurement $|V_{cb}|$ in Hadron Collisions with Top Pair Semi-Leptonic Decay Channel. / KIM Bogyeon¹, CHOI Suyong¹ (¹Department of Physics, Korea University)

B1.06 [12:10 - 12:22]

Measurement of the charge asymmetry in top pair production / LEE Jason Sang

Hun^{*1}, KANG Yecan¹, WATSON Ian James¹, ROH Youn Jung¹, PARK Inkyu¹, KIM Hyunsoo² (¹Department of Physics, University of Seoul, ²Department of Physics, Sejong University)

B1.07 [12:22 - 12:34]

Differential cross section measurement of ttbb in lepton+jets channel for CMS Run 2 data at $\sqrt{s} = 13$ TeV / AN Seohyeon^{*1}, KIM Taejeong¹, CHOI Jieun¹ (¹Department of physics, Hanyang University)

B1.08 [12:34 - 12:58]

Search for flavor-changing neutral current interaction of the top quark and the higgs boson decaying into bb bar at $\sqrt{s} = 13$ TeV with CMS Run2 data / PARK Jiwon^{*1}, KIM Tae Jeong¹, FRANCOIS Briec¹ (¹Department of Physics, Hanyang University)

[B2-pa] Field and string

2020. 07. 13 Monday 11:10~12:46

Room: 02

좌장 : 이승주 기초과학연구원

Chair : LEE Seung-Joo (IBS)

B2.01 [11:10 - 11:22]

Twisted Indices with Loop Operators in 3d-3d Correspondence / GANG Dongmin^{*2}, KIM Seonhwa³, SHIM Myungbo¹ (¹Kyung Hee University, ²Department of Physics, APCTP, ³School of Mathematics, KIAS)

B2.02 [11:22 - 11:34]

Enlarging the scope of the cosmological collider physics: Beyond the Positivity Bounds / KIM Suro^{*1}, NOUMI Toshifumi¹, TAKEUCHI Keito¹, ZHOU Siyi² (¹Department of Physics Faculty of Science, Kobe University, ²Department of Physics, Stockholm University)

B2.03 [11:34 - 11:46]

Perturbative solution and Entanglement Entropy of 4D Janus / KIM Se Jin^{*1} (¹Kyung Hee University)

B2.04 [11:46 - 11:58]

Transport and Thermodynamics of Non-Dirac materials from Holography / SEO Yunseok^{*1}, SIN Sang-Jin², SONG Geunho² (¹GIST College, GIST, ²Department of Physics, Hanyang University)

B2.05 [11:58 - 12:10]

Spinning binary Hamiltonian at first post-Minkowskian order from scattering amplitudes / CHUNG Ming-Zhi¹, HUANG Yu-Tin¹, KIM Jung-Wook², LEE Sangmin^{*2,3}

(¹Department of Physics and Astronomy, National Taiwan University, ²Department of Physics and Astronomy, Seoul National University, ³College of Liberal Studies, Seoul National University)

B2.06 [12:10 - 12:22]

Hysteric Magnetoconductance Phase / KIM Kyung Kiu^{*1}, SEO Yunseok², KIM Keun-Young², SIN Sang-Jin³ (¹Department of Physics and Astronomy, Sejong University, ²School of Physics and Chemistry, GIST, ³Department of Physics, Hanyang University)

B2.07 [12:22 - 12:34]

Large AdS6 black holes from CFT5 / CHOI Sunjin^{*1}, KIM Seok^{*1} (¹Department of Physics and Astronomy, Seoul National University)

B2.08 [12:34 - 12:46]

Dynamics of the Sachdev-Ye-Kitaev model coupled to external degrees of freedom / YOON Junggi^{*1}, MIYAJI Masamichi², TEZUKA Masaki³, YANG Zhenbin⁴ (¹Department of Physics, KIAS, ²Department of Physics, UC Berkeley, ³Department of Physics, Kyoto University, ⁴Department of Physics, KITP)

[B3-nu] Hadron Physics & Nuclear Reaction

2020. 07. 13 Monday 11:10~12:46

Room: 03

좌장 : 현창호 대구대학교

Chair : HYUN Chang Ho (Daegu University)

B3.01 [11:10 - 11:22]

Calculation of differential elastic cross section for p + ¹²C scattering in Cluster Effective Field Theory / IN EunJin¹, SONG Young-Ho³, PARK Tae-Sun⁴, HONG Seung-Woo² (¹Department of Energy Science, Sungkyunkwan University, ²Department of Physics, Sungkyunkwan University, ³RISP, IBS, ⁴CENS, IBS)

B3.02 [11:22 - 11:34]

Proton decay of ²¹Na states / CHAE Kyung Yuk^{*2}, KIM M. J.², CHA S. M.², AHN S. H.³, BARDAYAN D. W.⁴, CHIPPS K. A.^{5,6}, CIZEWSKI J. A.⁷, HOWARD M. E.⁷, MANNING B.⁷, RATKIEWCZ A.⁷, KOZUB R. L.⁸, KWAK K.⁹, MATOS M.¹⁰, O'MALLEY P. D.⁷, STRAUSS S.^{4,7}, PAIN S. D.^{4,6}, PITTMAN S.T.⁶, SMITH M. S.⁶, PETERS W. A.¹¹ (¹Sungkyunkwan University, ²Department of Physics, Sungkyunkwan University, ³Department of Physics and Astronomy, University of Tennessee, ⁴Department of Physics, University of Notre Dame, ⁵Department of Physics, Colorado school of Mines, ⁶Physics Division, Oak Ridge National Laboratory, ⁷Department of Physics and Astronomy, Rutgers University, ⁸Department of Physics, Tennessee Technological University, ⁹Department of Physics, Ulsan National Institute of Science and Technology(UNIST), ¹⁰Department of

Physics and Astronomy, Louisiana State University, ¹¹Department of Physics, Oak Ridge Associated Universities)

B3.03 [11:34 - 11:46]

An intranuclear cascade model for the $12C(K,K^+)$ reaction at 1.8 GeV/c / KIM Shin Hyung¹, AHN Jung Keun¹ (¹Department of Physics, Korea University)

B3.04 [11:46 - 11:58]

Cross-section measurement for K-p interactions at 1.8 GeV/c / JUNG Wooseung¹, AHN Jung Keun¹, FOR THE E42 Collaboration^{1,2} (¹Department of Physics, Korea University, ²ASRC, JAEA)

B3.05 [11:58 - 12:10]

β delayed α emission from ^{16}N in effective field theory / ANDO Shung-ichi¹ (¹Department of Information Display, Sun Moon University)

B3.06 [12:10 - 12:22]

H-dibaryon productions with the Lambda-baryon beam off the proton target / NAM Seung-il¹, AHN Jung Keun² (¹Department of Physics, Pukyong National University, ²Department of Physics, Korea University)

B3.07 [12:22 - 12:34]

Electroproduction of vector mesons in an effective Lagrangian approach / KIM Sangho¹, NAM Seung-il¹ (¹Physics Department, Pukyong National University)

B3.08 [12:34 - 12:46]

QCD phase diagram via the canonical method in the PNJL model with complex quark chemical potential / NAM Seung-il^{1,2}, WAKAYAMA Masayuki^{1,2} (¹Department of Physics, Pukyong National University, ²Center for Extreme Nuclear Matter (CENUM), Korea University)

[B4-co] Focus: Atomic scale imaging & spectroscopy I

2020. 07. 13 Monday 11:10~12:46

Room: 04

좌장 : 김관표 연세대학교

Chair : KIM Kwanpyo (Yonsei University)

B4.01 [11:10 - 11:34]

Tellurium: 1D Helical Atomic Chains to 2D Tellurene / KIM Moon J.¹ (¹Department of Materials Science and Engineering, Arts & Technology, The University of Texas at Dallas)

B4.02 [11:34 - 11:58]

Advanced scanning probe microscopy studies in ferroelectric oxide films / YANG Sang Mo^{*1} (¹Department of Physics, Sogang University)

B4.03 [11:58 - 12:22]

Visualization of the inhomogeneous superfluid in an iron-based superconductor / CHO Doohee^{*1} (¹Department of Physics, Yonsei University)

B4.04 [12:22 - 12:46]

Topological superconductivity at the edge of bismuth bilayer / JEON Sangjun^{*1} (¹Physics department, Chung-ang University)

[B5-co] Focus: Low-D QM: black phosphorus & geometric phase I

2020. 07. 13 Monday 11:10~12:46

Room: 05

좌장 : 김근수 연세대학교

Chair : KIM Keun Su (Yonsei University)

B5.01 [11:10 - 11:34]

Thickness-Controlled Black Phosphorus Tunnel Field-Effect Transistor for Low Power Switches / KIM Seungho¹, WATANABE Kenji², TANIGUCHI Takashi², CHO Sungjae^{*1} (¹Physics, KAIST, ²Research Center for Functional Materials, NIMS)

B5.02 [11:34 - 11:58]

Emerging electronic and thermal properties of two-dimensional oxidized black phosphorus / KWON Young-Kyun^{*1} (¹Department of Physics, Kyung Hee University)

B5.03 [11:58 - 12:22]

Observation of Excitonic Structure in Atomically Thin Black Phosphorus / KIM Jonghwan^{*1} (¹Department of Materials Science and Engineering, POSTECH)

B5.04 [12:22 - 12:46]

Optical and transport properties of few-layer black phosphorus / MIN Hongki^{*1} (¹Department of Physics and Astronomy, Seoul National University)

[B6-co] Magnetism

2020. 07. 13 Monday 11:10~12:46

Room: 06

좌장 : 정재일 서울시립대학교

Chair : JUNG Jeil (University of Seoul)

B6.01 [11:10 - 11:22]

Determining the spin Nernst effect in platinum from magnetic-field-dependent differential voltage measurements / PARK Seondo¹, KIM Donguk¹, KANG Seokwon¹, PARK Yun Daniel¹ (¹Department of Physics and Astronomy, Seoul National University)

B6.02 [11:22 - 11:34]

Magnetoelectric Response of Antiferromagnetic Van der Waals Bilayers / LEI Chao¹, CHITTARI Bheema Lingam², NOMURA Kentaro³, BANERJEE Nepal², JUNG Jeil², MACDONALD Allan H.¹ (¹Department of Physics, The University of Texas at Austin, ²Department of Physics, University of Seoul, ³Institute for Materials Research, Tohoku University)

B6.03 [11:34 - 11:46]

Spin-dependent thermoelectric power of nanoislands / PARK Jewook^{*1} (¹Center for Artificial Low Dimensional Electronic Systems, IBS)

B6.04 [11:46 - 11:58]

Magnetic field induced quantum phases in a tensor network study of Kitaev magnets / LEE HYUNYONG^{*1,2} (¹Division of Display & Semiconductor Physics, Korea University, ²Institute for Solid State Physics, University of Tokyo)

B6.05 [11:58 - 12:10]

Study of thin molecular spin qubit layers using a surface-sensitive electron spin resonance spectrometer / JEONG Yejin^{1,2}, COLAZZO Luciano^{1,2}, CHO Franklin Hyunil^{1,2}, YU Jisoo^{1,2}, LIU Junjie⁴, ARDAVAN Arzhang⁴, BOERO Giovanni³, HEINRICH Andreas Joachim^{1,2}, DONATI Fabio^{*1,2} (¹Department of Physics, Ewha Womans University, ²Center for Quantum Nanoscience (QNS), Institute for Basic Science (IBS), ³Laboratory for Microsystems, Ecole Polytechnique Fédérale de Lausanne (EPFL), ⁴The Clarendon Laboratory, Department of Physics, University of Oxford)

B6.06 [12:10 - 12:22]

High-temperature itinerant antiferromagnetism in an iron-based magnetic van der Waals metal / SEO Junho^{1,2}, AN Eun-Su^{1,2}, HWANG Soo-Yoon³, PARK Taesu⁴, CHOI Minhyuk^{1,2}, OH Eunseok^{1,2}, SONG Kyung⁵, YEOM Han Woong^{1,2}, CHOI Si-Young³, SHIM Ji Hoon⁴, KIM Jun Sung^{*1,2} (¹Center for Artificial Low Dimensional Electronic Systems, Institute for Basic Science (IBS), ²Department of Physics, POSTECH, ³Department of Materials Science and Engineering, POSTECH, ⁴Department of Chemistry, POSTECH,

B6.07 [12:22 - 12:34]

Effect of growth temperature on magnetism of GdFe₁₂ epitaxial thin films / CHO Daegill¹, RYU Sangkyun¹, JEEN Hyoung Jeen^{*1} (¹Department of Physics, Pusan National University)

B6.08 [12:34 - 12:46]

Angle-resolved photoemission spectroscopy study of Kondo insulators of CeRhX (X=As, Sb) and CeNiSn / SEONG Seungho¹, YANG Min Young¹, DENLINGER D. J.², TAKABATAKE T.³, KANG Jeongsoo^{*1} (¹Physics, The Catholic University of Korea, ²ALS, Lawrence Berkeley National Laboratory, USA, ³Graduate School of Advanced Sciences of Matter, Hiroshima University, Japan)

[B7-ap] Focus: Perovskites structures I

2020. 07. 13 Monday 11:10~13:10

Room: 07

좌장 : 김태경 한국외국어대학교

Chair : KIM Taekyeong (Hankuk University of Foreign Studies)

B7.01 [11:10 - 11:34]

Electronic structure and device properties of hybrid perovskite / Yi Yeonjin^{*1}, PARK Jeehong¹, YANG Jaehyun¹, SHIN Donggeun³, LEE Hyunbok² (¹Department of Physics, Yonsei University, ²Department of Physics, Kangwon National University, ³Institut für Physik, Humboldt-Universität)

B7.02 [11:34 - 11:58]

Ion transport in lead halide perovskites in the dark and under light / KIM Gee Yeong^{*1,2} (¹KIST, ²Physical Chemistry of Solids, Max Planck Institute for Solid State Research)

B7.03 [11:58 - 12:22]

Ion migration and suppression in perovskite light-emitting diodes / LEE Bo Ram^{*1} (¹Physics, Pukyong National University)

B7.04 [12:22 - 12:46]

Photoelectron Spectroscopy Study on Electronic Structure of Organolead Halide Perovskite / LEE Hyun Bok^{*1}, CHOI Seung Sun¹, KIM Won Sik¹, SHIN Woo Jin¹ (¹Department of Physics, Kangwon National University)

B7.05 [12:46 - 13:10]

Deep level defects of organic lead halide perovskite single crystals and organic-inorganic heterojunction structures / KIM Eun Kyu^{*1} (¹Department of Physics, Hanyang University)

[B8-ap] Focus: Organic Material Properties and Device Application

2020. 07. 13 Monday 11:10~12:46

Room: 08

좌장 : 이탁희 서울대학교

Chair : LEE Takhee (Seoul National University)

B8.01 [11:10 - 11:34]

Defect engineering for metal halide perovskite optoelectronics / HAN Tae-Hee^{*1} (¹Division of Materials Science and Engineering, Hanyang University)

B8.02 [11:34 - 11:58]

Enhanced Charge Transport in Doped Conjugated Polymers for Higher Thermoelectric Properties / KWAK Jeonghun^{*1}, PARK Juhjung¹ (¹Department of Electrical and Computer Engineering, Seoul National University)

B8.03 [11:58 - 12:22]

Soft x-ray spectroscopy study of the element and orbital contributions to the electronic structure of organic semiconductors / CHO Sang Wan^{*1} (¹Department of Physics, Yonsei University)

B8.04 [12:22 - 12:34]

Visible light detectable quantum-dot light emitting diode with an inorganic hole injection layer / KIM Tae Yeon¹, KIM Byung Jun¹, PARK Sungho¹, HEO Su Beon¹, KANG Seong Jun^{*1} (¹정보전자신소재공학과, Kyung Hee University)

B8.05 [12:34 - 12:46]

The various optical logic circuits for visible light communications based on highly transparent phototransistors with oxide semiconductor and quantum dots / KIM Byung Jun¹, PARK Sungho¹, KIM Tae Yeon¹, KANG Seong Jun^{*1} (¹정보전자신소재공학과, Kyung Hee University)

[B9-st] Nonequilibrium Systems

2020. 07. 13 Monday 11:10~12:58

Room: 09

좌장 : 고희일 고려대학교

Chair : GOH Kwang-II (Korea University)

B

B9.01 [11:10 - 11:34]

Effect of social structure on perception bias / 이은¹ (¹University of North Carolina at Chapel Hill, USA)

B9.02 [11:34 - 11:46]

Thermodynamic uncertainty relation in overdamped Langevin systems with a magnetic field / PARK Jong-Min¹, PARK Hyunggyu¹ (¹School of Physics, KIAS)

B9.03 [11:46 - 11:58]

Work fluctuation, entropy, and time's arrow in time-asymmetric engine cycles / JEON Euijin¹, YI Juyeon² (¹Graduate school of nanoscience and technology, KAIST, ²Department of Physics, Pusan National University)

B9.04 [11:58 - 12:10]

Brownian heat engine with active reservoirs / LEE Jae Sung¹, 박형규², 박종민² (¹Quantum Universe Center, KIAS, ²Department of Physics, KIAS)

B9.05 [12:10 - 12:22]

Neural estimator for entropy production / KIM Dong-Kyum¹, BAE Youngkyoung¹, LEE Sangyun¹, JEONG Hawoong² (¹Physics Department, KAIST, ²Center for Complex Systems, KAIST)

B9.06 [12:22 - 12:34]

Thermodynamic Learning of Neural Networks / CHO Won Sang¹, LEE Sungyeop¹, BAN Kayoung², PARK Chanju¹ (¹Department of Physics and Astronomy, Center for Theoretical Physics, Seoul National University, ²Department of Physica and IPAP, Yonsei University)

B9.07 [12:34 - 12:46]

Intermittent search with stochastic resetting / DURANG Xavier¹, LIZANA Ludvig², JEON Jae-Hyung¹ (¹Department of Physics, POSTECH, ²Department of Physics, Umea University, Sweden)

B9.08 [12:46 - 12:58]

Topological Defect in Janus Colloidal Crystal / PARK Myeonggon^{1,2}, GRANICK Steve^{1,3} (¹Center for Soft and Living Matter, IBS, ²Department of Physics, UNIST, ³Department of Chemistry, UNIST)

[B10-B11] No Session

[B12-op] Quantum optics and biophotonics

2020. 07. 13 Monday 11:10~12:34

Room: 12

좌장 : 김명기 고려대학교

Chair : KIM Myung Ki (Korea University)

B12.02 [11:10 - 11:22]

A study of photon characteristics on a baam splitter for Copenhagen interpretation / KIM Sangbae^{*1} (¹Electrical engineering and computer science, GIST)

B12.03 [11:22 - 11:34]

Measuring optical activity using heralded single photons / LEE Kwang Geol^{*1}, YOON Seung-Jin¹, LEE Changhyoup² (¹Hanyang University, ²Institute of Theoretical Solid State Physics, Karlsruhe Institute of Technology)

B12.04 [11:34 - 11:46]

Optical diffraction tomography of freestanding objects with isotropic resolution via tomographic mold for optical trapping / LEE Moosung¹, PARK YongKeun^{*1} (¹Physics, KAIST)

B12.05 [11:46 - 11:58]

Low-coherent optical diffraction tomography using ferroelectric liquid crystal spatial light modulator / PARK Chansuk^{1,2}, LEE KyeoReh^{1,2}, BAEK YoonSeok^{1,2}, PARK YongKeun^{*1,2,3} (¹Physics, KAIST, ²KAIST Institute for Health Science and Technology, KAIST, ³Tomocube, Tomocube)

B12.06 [11:58 - 12:10]

A simple method for reference-free holographic imaging of speckle field / CHANG Taean¹, JANG Mooseok^{*1} (¹Bio and Brain Engineering, KAIST)

B12.07 [12:10 - 12:22]

A toolbox for improving the performance of a solid-state single-photon source / CHA Jihun^{*1,2}, HOWARD Lewis^{1,2}, TRANter Aaron³, SU Ming^{1,2}, ALMEIDA Marcelo Pereira de^{1,2}, WHITE Andrew Gerard^{1,2} (¹School of Mathematics & Physics, The University of Queensland, ²Centre of Excellence for Engineered Quantum Systems, Australian Research Council, ³Department of Quantum Science, Australian National University)

[B13-B15] No Session

[B16-bp] Molecular biological physics

2020. 07. 13 Monday 11:10~13:10

Room: 16

좌장 : 이종봉 포항공과대학교

Chair : LEE Jong-Bong (POSTECH)

B

B16.01 [11:10 - 11:22]

Single-molecule Force Spectroscopy Unfolds Membrane Protein Folding Mystery / MIN Duyoung^{*1} (¹School of Natural Science, UNIST)

B16.02 [11:22 - 11:34]

Single-molecule tracking of PAF15 and PCNA on DNA skybridge / KIM Daehyung¹, BIASIO Alfredo De², GONZALEZ-MAGAÑA Amaia³, BU Gayun¹, RASHID Fahad⁴, JEONG Churlhyun⁵, HAMDAN Samir⁴, BLANCO Francisco^{3,6}, LEE Jong-Bong^{*1,7} (¹Physics, POSTECH, ²Leicester Institute of Structural and Chemical Biology, University of Leicester, ³Structural Biology of Cancer Lab, CIC bioGUNE, ⁴Division of Biological and Environmental Sciences and Engineering, King Abdullah University of Science and Technology, ⁵Center for Theragnosis, Biomedical Research Institute, KIST, ⁶Structural Biology of Cancer Lab, IKERBASQUE, ⁷School of Interdisciplinary Bioscience & Bioengineering, POSTECH)

B16.03 [11:34 - 11:46]

High degree of coordination of subunits in NSF for efficiently utilizing ATP molecules / YOON Tae-Young^{*2}, KIM Changwon² (¹Seoul National University, ²School of Biological Science, Seoul National University)

B16.04 [11:46 - 11:58]

Bile acid transporter mediated endocytosis of novel nano-complex for targeted oral delivery of drugs using MD simulation / PARK Suhyun¹, BASHYAL Santosh², LEE Sangkil², WU Sangwook^{*1} (¹Department of Physics, Pukyong National University, ²College of Pharmacy, Keimyung University)

B16.05 [11:58 - 12:10]

Folding pathway of human glucose transporter GLUT3 and its evolutionary model / CHOI Hyun-Kyu^{1,2}, KANG Hyunook¹, KIM HyunGyu¹, CHOI Hee-Jung¹, YOON Tae-Young^{*1} (¹Seoul National University, ²Department of physics, KAIST)

B16.06 [12:10 - 12:22]

Single-molecule studies on cotranscriptional G-quadruplex formation induced by

R-loop formation / LIM Gunhyoung¹, HOHNG Sungchul¹ (¹Seoul National University)

B16.07 [12:22 - 12:34]

Binding modes of full-length PD-1 to PD-L1 revealed at the single-molecule level / EUN GeeSung¹, YOON Tae-Young¹ (¹Department of Biological Sciences, Seoul National University)

B16.08 [12:34 - 12:46]

Mechanical properties of a system with negative stiffness / LEE Sang-Wook¹, YOON Juhee¹ (¹Department of Physics, Ewha Womans University)

B16.09 [12:46 - 12:58]

Autonomous in situ generation of multi-stranded RNA complexes for synthetic molecular circuits / BAE Wooli¹, STAN Guy-Bart¹, OULDRIDGE Thomas¹ (¹Department of bioengineering, Imperial College London)

B16.10 [12:58 - 13:10]

Study on the Intrinsic mechanical property of Bacteriophage P2 by using AFM / CHOI Seong Soo¹, KIM Kyung Jin¹ (¹Sun Moon University)

Session C

2020 July 13(Mon) 15:20~17:08

C

[C1-pa] Accelerator II

2020. 07. 13 Monday 15:20~16:56

Room: 01

좌장 : 고정환 경희대학교

Chair : GOH Junghwan (Kyung Hee University)

C1.01 [15:20 - 15:32]

SM and BSM results from Higgs-boson to a pair of W-boson at CMS / LEE Sang Eun^{*1}
(*1Department of Physics, Seoul National University)

C1.02 [15:32 - 15:44]

Search for new resonances decaying two muons in the bottom fermion fusion process with Run 2 CMS data / MOON Chang-Seong^{*1}, KIM Daekwon¹, DOGRA Sunil M.¹, LEE Jason², WATSON Ian James² (*1Department of Physics, Kyungpook National University, ²Department of Physics, University of Seoul)

C1.03 [15:44 - 15:56]

Search for long-lived charginos based on disappearing-track signature with the CMS detector at LHC / PAK Sang Il^{*1}, LEE Sehwook¹, SEKMEN Sezen¹, BEIN Samuel Louis², KUTZNER Viktor Gerhard² (*1Physics, Kyungpook National University, ²Physics, Hamburg University)

C1.04 [15:56 - 16:08]

Search for excited leptons in $ll\gamma$ final states at 13 TeV / HA Seungkyu¹, KIM Bobae^{*2}, LEE Sehwook², NAM Kyungwook⁴, YOO Hwidong³ (*1Physics, Korea University, ²Kyungpook National University, ³Physics, Seoul National University, ⁴Physics, Yonsei University)

C1.05 [16:08 - 16:20]

RPV SUSY search in single-lepton final state in CMS / JUNG Chang whan^{*1} (*1Physics, Korea University)

C1.06 [16:20 - 16:32]

Background study for Monotop events at CMS / MOON Chang-Seong^{*1}, HONG Jieun¹, DOGRA Sunil¹ (*1Department of Physics, Kyungpook National University)

C1.07 [16:32 - 16:44]

Search for high mass spin-0 resonances in semileptonic WW to $lvqq$ final state at $\sqrt{s} = 13\text{TeV}$ in CMS experiment / YANG Un-ki¹, CHOI Junho¹ (¹Department of physics and astronomy, Seoul National University)

C1.08 [16:44 - 16:56]

Search for pair production of heavy neutrinos via Z' based on the left-right symmetric extension of the Standard Model at CMS using Full LHC Run2 data of proton-proton collisions at $\sqrt{s} = 13\text{TeV}$ / OH SUNGBIN¹, YANG Un-ki¹ (¹Department of physics and astronomy, Seoul National University)

[C2-pa] High energy physics-phenomenology

2020. 07. 13 Monday 15:20~17:44

Room: 02

좌장 : 신서동 전북대학교

Chair : SHIN Seodong (Jeonbuk National University)

C2.01 [15:20 - 15:32]

Bulk Clockwork Standard Model / KIM Soon Bin¹, KANG Yoo-Jin¹, LEE Hyun Min¹ (¹Department of Physics, Chung-Ang University)

C2.02 [15:32 - 15:44]

Beyond the Starobinsky model for inflation / CHEONG Dhong Yeon¹, LEE Hyun Min², PARK Seongchan¹ (¹Yonsei University, ²Department of Physics, Chung-Ang University)

C2.03 [15:44 - 15:56]

Primordial Black Holes in Higgs-R2 Inflation as a whole dark matter / CHEONG Dhong Yeon¹, LEE Sung Mook¹, PARK Seongchan¹ (¹Yonsei University)

C2.04 [15:56 - 16:08]

Detecting keV-Range Super-Light Dark Matter with a Graphene-based Josephson Junction Detector / KIM Doojin¹, PARK Jong-Chul², FONG Kin Chung³, LEE Gil-Ho⁴ (¹Department of Physics and Astronomy, Texas A&M University, ²Department of Physics, Chungnam National University, ³Quantum Information Processing Group, Raytheon BBN Technologies, ⁴Department of Physics, Pohang University of Science and Technology)

C2.05 [16:08 - 16:20]

Neutrino self-interaction in the signals from blazar TXS 0506+056 / PARK Seongchan¹, JHO Yongsoo¹, KANG Dong Woo², KIM Jongkuk², PARK Jong-Chul³ (¹Yonsei University, ²Department of Physics, KIAS, ³Department of Physics, Chungnam National University)

C2.06 [16:20 - 16:32]

Lightening Gravity Mediated Dark Matter / KANG Yoo-Jin¹, LEE Hyun Min^{1,2}
(¹Department of Physics, Chung-Ang University, ²Theory department, CERN)

C2.07 [16:32 - 16:44]

New reactor experiments to search for a new decay channel / LEE Hye-Sung¹, LEE Young-Min¹, DENIVERVILLE Patrick² (¹Department of Physics, KAIST, ²T-2, Nuclear and Particle Physics, Astrophysics and Cosmology, Los Alamos National Laboratory)

C2.08 [16:44 - 16:56]

Size Separations in Higher Dimensional Anisotropic Gravity / KIM Taegyul¹, OH Phillial¹ (¹Department of Physics, Sungkyunkwan University)

C2.09 [16:56 - 17:08]

Gluon-Photon Signatures for color octet at the LHC (and beyond) / FLACKE Thomas¹
(¹Center for Theoretical Physics of the Universe (CTPU), IBS)

C2.10 [17:08 - 17:20]

Boosting Invisible Higgs Search with a Gluon Jet / CHO Won Sang¹, KIM Hyung Do¹, LEE Dongsub¹ (¹Department of Physics and Astronomy, Center for Theoretical Physics, Seoul National University)

C2.11 [17:20 - 17:32]

Measuring the trilinear Higgs boson self-coupling at the 100 TeV hadron collider via multivariate analysis-- / PARK Jubin^{1,2}, CHANG Jung², CHEUNG Kingman^{3,4,5}, LEE Jae Sik^{1,2} (¹IUEP(Institute for Universe and Elementary Particles), Chonnam National University, ²Department of Physics, Chonnam National University, ³Physics Division, National Center for Theoretical Sciences, ⁴Division of Quantum Phases and Devices, School of Physics, Konkuk University, ⁵Department of Physics, National Tsing Hua University)

C2.12 [17:32 - 17:44]

Random bond Ising model and quantum error correction of a toric code / KIM Se Yong¹ (¹Department of Physics, Sejong University)

[C3-nu] Hadron Physics

2020. 07. 13 Monday 15:20~16:56

Room: 03

좌장 : 박태선 기초과학연구원

Chair : PARK Tae-Sun (IBS)

C3.01 [15:20 - 15:32]

Production of Hyperon Resonances in $\Lambda_c \rightarrow p K_s \pi^0$ decays in the Belle experiment

/ KIM Young Jun¹, YANG Seongbae¹, AHN Jung Keun^{*1} (¹Department of Physics, Korea University)

C3.02 [15:32 - 15:44]

The σ and ρ coupling constants for charmed and bottom mesons from bootstrap method / KIM Hee-Jin¹, KIM Hyun-Chul^{*1} (¹Inha University)

C3.03 [15:44 - 15:56]

Color-octet heavy quark potential from the instanton vacuum / HONG Kihoon¹, KIM Hyun-Chul¹, YAKHSHIEV Ulugbek¹ (¹Inha University)

C3.04 [15:56 - 16:08]

Axial-vector transition form factors of the baryon decuplet / SUH Jung-Min¹, JUN Yu-Son¹, KIM Hyun-Chul^{*1} (¹Inha University)

C3.05 [16:08 - 16:20]

Photoproduction of a new $\Sigma^*(1400)$ resonance with $JP=1/2^-$ off the nucleon target / KIM Sangho^{*1}, NAM Seung-il^{*1} (¹Physics Department, Pukyong National University)

C3.06 [16:20 - 16:32]

Gravitational form factors of the singly heavy baryon Σ_c / KIM Hyun-Chul^{*1}, KIM June-Young², POLYAKOV Maxim V.² (¹Inha University, ²Institute for Theoretical Physics II, Ruhr-Universitaet Bochum)

C3.07 [16:32 - 16:44]

The baryon octet and decuplet masses in nuclear matter within the model-independent approach / KIM Namyong¹, KIM Hyun-Chul¹, YAKHSHIEV Ulugbek T¹, YANG Ghil-Seok² (¹Inha University, ²Department of Physics, Soongsil University)

C3.08 [16:44 - 16:56]

Axial-vector form factors of the baryon decuplet / JUN Yuson¹, KIM Hyun-Chul¹, SUH Jung-Min¹ (¹Inha University)

[C4-co] Focus: Low-D QM: black phosphorus & geometric phase II

2020. 07. 13 Monday 15:20~16:56

Room: 04

좌장 : 조두희 연세대학교

Chair : CHO Doohee (Yonsei University)

C4.01 [15:20 - 15:44]

Impurity-induced magnetism in FeSe: Atomic scale imaging and spectroscopy using

scanning tunneling microscopy / SONG Sang Yong¹, SEO Jungpil¹ (¹Department of Emerging Materials Science, DGIST)

C4.02 [15:44 - 16:08]

STM investigation of unexpected charge-density waves in thin flakes of 1T-TaS₂ / KIM Tae-Hwan^{*1} (¹Physics, POSTECH)

C4.03 [16:08 - 16:32]

TEM Imaging of Molecular Structures and Dynamics Enabled by Graphene Membrane / KIM Kwanpyo^{*1} (¹Physics, Yonsei University)

C4.04 [16:32 - 16:56]

Single-Atom Level Determination of Complex 3D Atomic Structure via Electron Tomography / YANG Yongsoo^{*1} (¹Department of Physics, KAIST)

[C5-co] Nano-Meso/Surface-Interface

2020. 07. 13 Monday 15:20~16:56

Room: 05

좌장 : 양범정 서울대학교

Chair : YANG Bohm Jung (Seoul University)

C5.01 [15:20 - 15:44]

Gate-tunable topological flat bands in graphene moire superlattices / JUNG Jeil^{*1} (¹Department of Physics, University of Seoul)

C5.02 [15:44 - 16:08]

Ferroelectricity-driven Berry curvature dipole in SnTe monolayers / JIN Hosub^{*1} (¹Department of Physics, UNIST)

C5.03 [16:08 - 16:32]

Quantum Distance and Anomalous Landau Levels of Flat Bands / RHIM Jun-Won^{*1,2}, KIM Kyo³, YANG Bohm-Jung^{1,2,4} (¹Center for Correlated Electron Systems, Institute for Basic Science (IBS), ²Department of Physics & Astronomy, Seoul National University, ³Korea Atomic Energy Research Institute, Daejeon, ⁴Center for Theoretical Physics (CTP), Seoul National University)

C5.04 [16:32 - 16:56]

Uncovering pseudospins and its polarization in black phosphorus / JUNG Sung Won^{*1}, RYU Sae Hee², SHIN Woo Jong², KIM Keun Su² (¹Diamond Light Source, Harwell Campus, U.K., ²Department of Physics, Yonsei University)

[C6-co] Magnetism/Superconductivity

2020. 07. 13 Monday 15:20~16:32

Room: 06

좌장 : 조연정 경북대학교

Chair : JO Youn Jung (Kyungpook National University)

C6.01 [15:20 - 15:32]

Control of ferromagnetic Curie temperature and topological Hall effect in chromium telluride thin films / LEE In Hak¹, KIM Hyuk Jin¹, CHOI Byoung Ki¹, KIM Min Jae¹, LEE Kyeong Jun², CHOI Tae Yang², CHANG Seo Hyoung^{2,3}, JEONG Hu Young³, KIM Young Hak⁴, PARK Seung Young⁵, JO Younghun⁵, LEE Changki⁶, CHOI Junwoo⁶, LEE Suyuon⁷, CHANG Young Jun^{*1} (¹Department of Physics, University of Seoul, ²Department of Physics, Chung-Ang University, ³Central Research Facilities (UCRF) and School of Materials Science and Engineering, UNIST, ⁴POSTECH, Pohang Accelerator Laboratory, ⁵Division of Materials Science, KBSI, ⁶Center for Spintronics, KIST, ⁷Center for Electronic Materials, KIST)

C6.02 [15:32 - 15:44]

Oxygen Vacancy Engineering for Highly Tunable Ferromagnetic Properties: A Case of SrRuO₃ Ultrathin Film with a SrTiO₃ Capping Layer / KO Eun Kyo^{1,2}, MUN Junsik³, LEE Han Gyeol^{1,2}, KIM Jinkwon^{1,2}, SONG Jeongkeun^{1,2}, CHANG Seo Hyoung⁴, KIM Tae Heon⁵, CHUNG Suk Bum^{6,7,8}, KIM Miyoung³, WANG Lingfei^{1,2}, NOH Tae Won^{*1,2} (¹Center for Correlated Electron Systems, CCES (IBS), ²Department of Physics and Astronomy, Seoul National University, ³Department of Materials Science and Engineering and Research Institute of Advanced Materials, Seoul National University, ⁴Department of Physics, Chung-Ang University, ⁵Department of Physics and Energy Harvest Storage Research Center (EHSRC), University of Ulsan, ⁶Department of Physics, University of Seoul, ⁷Natural Science Research Institute, University of Seoul, ⁸School of Physics, Korea Institute for Advanced Study)

C6.03 [15:44 - 15:56]

Superconductivity emerging from a stripe charge order in IrTe₂ / PARK Sungyu¹, KIM So Young^{1,2}, KIM Hyung Kug², KIM Minjeong^{1,3}, WON Choong Jae⁴, CHEONG Sang-Wook^{5,6}, KIM B. J.^{1,2}, YEOM H. W.^{1,2}, KIM Jonghwan^{*1,3}, KIM Tae-Hwan^{*2}, KIM Jun Sung^{*1,2} (¹Center for Artificial Low Dimensional Electronic Systems, IBS, ²Department of Physics, POSTECH, ³Department of Material Science and Engineering, POSTECH, ⁴Max Planck POSTECH center for Complex Phase Materials, POSTECH, ⁵Laboratory for Pohang Emergent Materials, POSTECH, ⁶Rutgers Center for Emergent Materials, Rutgers university)

C6.04 [15:56 - 16:08]

Effect of local density of states on the impurity-induced many-body ground states in superconductivity / SONG Sang Yong¹, SEO Jungpil^{*1} (¹Emerging Materials Science, DGIST)

C6.05 [16:08 - 16:20]

Multiband Nature of the Room-Temperature Superconductivity in Compressed LaH_{10} / WANG Chongze¹, YI Seho¹, CHO Jun Hyung^{*1} (¹Department of Physics, Hanyang University)

C6.06 [16:20 - 16:32]

Superconducting Hydrogen Cages Stabilized by Anionic Electrons in Compressed LaH_{10} / YI Seho¹, WANG Chongze¹, JEON Hyunsoo¹, CHO Jun Hyung^{*1} (¹Department of Physics, Hanyang University)

C

[C7-ap] Focus: Perovskites structures II

2020. 07. 13 Monday 15:20~17:08

Room: 07

좌장 : 이연진 연세대학교

Chair : YI Yeonjin (Yonsei University)

C7.01 [15:20 - 15:44]

Overcoming lifetime limitation on metal halide perovskite emitters and their display applications / LEE Tae-Woo^{*1} (¹Department of Materials Science and Engineering, Seoul National University)

C7.02 [15:44 - 16:08]

Raman scattering study of structural phase transitions in methylammonium lead halide perovskite single crystals / YOON Seokhyun^{*1} (¹Department of Physics, Ewha Womans University)

C7.03 [16:08 - 16:32]

Cation engineering of mixed-halide perovskite solar cells for improved photo conversion efficiency and long-term stability / YANG JungYup^{*1}, KIM Mijoung¹, KIM Moonhoe¹, KIM Gisung¹, SHIN Jaekwon¹, OH Juyoung¹, PARK Geon¹ (¹Department of Physics, Kunsan National University)

C7.04 [16:32 - 16:56]

Interfaces in perovskite solar cells: influence of functional materials on electronic structures and performances / SEO Jung Hwa^{*1} (¹physics, Dong-A University)

C7.05 [16:56 - 17:20]

First-principles studies of the surfaces, interfaces, and junctions of hybrid halide perovskites / KIM Yong-Hoon^{*1} (¹School of Electrical Engineering, KAIST)

C7.06 [17:20 - 17:44]

Structural and optoelectronic properties of $\text{CH}_3\text{NH}_3\text{PbX}_3$ Perovskite Crystals (X = I, Br, and Cl) for fundamental understanding and device applications / JUNG Hye Ri¹, CHO Yuna¹, JO William^{*1} (¹Department of Physics, Ewha Womans University)

[C8-ap] Focus: Recent developments of biosensor technology

2020. 07. 13 Monday 15:20~16:32

Room: 08

좌장 : 홍석철 고려대학교

Chair : HONG Seok-Cheol (Korea University)

C8.01 [15:20 - 15:44]

Single-molecule force sensor for molecular tension measurement in living cells / KIM Kyungah¹, KIM Young¹, KIM Byoung Choul^{*1} (¹Major of Bioengineering, Incheon National University)

C8.02 [15:44 - 16:08]

DNA computing and storage system by electric field / SONG Youngjun^{*1} (¹Major of Nano-bioengineering, College of Life Sciences and Bioengineering, Incheon National University)

C8.03 [16:08 - 16:32]

Nuclease-free detection of DNA methylation via the B-Z transition / KIM Sook Ho^{1,2}, JUNG Haejun¹, HONG Seok-Cheol^{*1,3} (¹Department of Physics, Korea University, ²GRI-TPC, Sejong University, ³Center for Molecular Spectroscopy and Dynamics, Institute for Basic Science)

[C9-st] Complex Systems II

2020. 07. 13 Monday 15:20~17:08

Room: 09

좌장 : 정우성 포항공과대학교

Chair : JUNG Woo-Sung (POSTECH)

C9.01 [15:20 - 15:44]

Multiplexing induced first order transition (explosive) synchronization in multilayer networks / JEONG Hawoong^{*1,2}, JALAN Sarika^{2,3,4} (¹Physics Department, KAIST, ²Center for Complex Systems, KAIST, ³PCS, IBS, ⁴Complex Systems Lab, IIT Indore, India)

C9.02 [15:44 - 15:56]

Phase transition and entropy flux in majority-vote dynamics on multiplex networks / ROH Dahae¹, GOH KWANG-IL¹ (¹Korea University)

C9.03 [15:56 - 16:08]

The multi-scale landscape of community inconsistency in networks / LEE Daekyung¹, LEE Sang Hoon², KIM Heetae³ (¹Department of Physics, Sungkyunkwan University, ²Department of Liberal Arts, Gyeongnam National University Of Science and Technology, ³Data Science Institute, Faculty of Engineering, Universidad del Desarrollo)

C9.04 [16:08 - 16:20]

Modeling temporal networks with bursty activity patterns of nodes and links / JO Hang-Hyun¹, HIRAOKA Takayuki², MASUDA Naoki³, LI Aming⁴ (¹Department of Physics, The Catholic University of Korea, ²Department of Computer Science, Aalto University, ³Department of Mathematics, SUNY Buffalo, ⁴Department of Zoology, University of Oxford)

C9.05 [16:20 - 16:32]

The origin of bursty pattern in Wikipedia editing / CHOI Jeehye², JO Hang-Hyun¹ (¹Department of Physics, The Catholic University of Korea, ²Research Department, APCTP)

C9.06 [16:32 - 16:44]

Optimizing hospital distribution across districts for reducing tuberculosis fatalities / LEE Mi Jin¹, KIM Kanghun², SON Junik³, LEE Deok-Sun¹ (¹Department of Physics, Inha University, ²-, Financial Engineering Team, ³-, Chungnam National University Hospital)

C9.07 [16:44 - 16:56]

First passage time of searchers in the presence of strong attractions / CHOI Myeongseon², RO Sunghan³, KIM Yong Woon^{1,2} (¹Graduate School of Nanoscience and Technology, KAIST, ²Department of Physics, KAIST, ³Department of Physics, Technion)

C9.08 [16:56 - 17:08]

Automata representation of successful strategies for social dilemmas / MURASE Yohsuke¹, BAEK Seung Ki² (¹Center for Computational Science, RIKEN, ²Department of Physics, Pukyong National University)

[C10] No Session

[C11-pl] Plasma Physics, Accelerator and Beam, Laser Plasma

2020. 07. 13 Monday 15:20~16:32

Room: 11

좌장 : 장지호 기초과학연구원 중이온가속기구축사업단

Chair : JANG Ji Ho (IBS)

C11.01 [15:20 - 15:32]

Electrostatic-electromagnetic wave interaction via cold-hot wave coupling / LEE MIN UK¹, YUN GUNSU^{1,2} (¹Division of Advanced Nuclear Engineering, POSTECH, ²Department of Physics, POSTECH)

C11.02 [15:32 - 15:44]

FLYCHK Opacity Calculation of Aluminum, Iron, Copper, and Gold Plasmas / CHO Byoung Ick^{1,2}, CHO Min Sang¹, MATSUO Kazuki³, FUJIOKA Shinsuke³, HAHN Sang June⁴, CHUNG Hyun-Kyung⁵ (¹GIST, ²Center for Relativistic Laser Science, IBS, ³Institute of Laser Engineering, Osaka University, ⁴Department of Physics, Chung-Ang University, ⁵Innovation Strategy Division, NFRI)

C11.03 [15:44 - 15:56]

Nonthermal electron dynamics in warm dense gold plasma / CHO Byoung Ick^{1,2}, KIM Minju^{1,2}, YANG Seonghyeok^{1,2}, LEE Jong-Won^{1,2}, CHO Min Sang¹ (¹GIST, ²Center for Relativistic Laser Science, Institute of Basic Science, IBS)

C11.04 [15:56 - 16:08]

Design of Beam Shaping Device for Accelerator based BNCT / CHO Il Sung^{*1}, KIM Minho¹, PARK Chawon¹, MIN Sunhong¹, HONG Bong Hwan¹, LIM Sang Moo¹ (¹Radiation Device Research Team, KIRAMS)

C11.05 [16:08 - 16:20]

Monte Carlo study of imaging plate response to laser-driven aluminum ion beams / WON Junho¹, SONG Jaehyun¹, PALANIYAPPAN S.², GAUTIER D. C.², JEONG Wonhee¹, FERNÁNDEZ J. C.², BANG Woosuk^{*1} (¹Department of Physics and Photon Science, GIST, ²P-24, Los Alamos National Laboratory)

C11.06 [16:20 - 16:32]

Property change of radiation generated by plasma dipole oscillations in the magnetic field. / SONG HyungSeon¹, KYLYCHBEKOV Salizhan¹, HUR Min Sup^{*1} (¹Physics, UNIST)

[C12-op] Lasers and nano-optics

2020. 07. 13 Monday 15:20~16:20

Room: 12

좌장 : 김명기 고려대학교

Chair : KIM Myung Ki (Korea University)

C12.01 [15:20 - 15:32]

Temporal Characterization of a Two-color Laser Field using the Tunneling Ionization Method / SHIN Jeong-uk^{1,2}, SHRESTHA Rajaram^{1,2}, CHO Wosik^{1,2}, KIM Kyung Taec^{1,2}

(¹Center of Relativistic Laser Science, IBS, ²Department of Physics and Photon Science, GIST)

C12.02 [15:32 - 15:44]

Spatiotemporal characterization of a femtosecond laser pulse using tunneling ionization / CHO Wosik^{1,2}, KIM Kyung Taec^{1,2}

(¹Department of Physics and Photon Science, GIST, ²Center for relativistic laser science, IBS)

C12.03 [15:44 - 15:56]

High-Power Pulse Generation Using Q-switch in Nd:YVO4 Solid State Laser / YEE Ki Ju¹, JANG Dongil¹

(¹Department of Physics, Chungnam National University)

C12.04 [15:56 - 16:08]

Polymer-based colloidal composite with tunable permittivity / IM Eunji¹, LEE Seungwoo^{1,2}

(¹Department of Biomicrosystem Technology, Korea University, ²Graduate School of Converging Sci & Tech, Korea University)

C12.05 [16:08 - 16:20]

Electrically tunable amplitude only spatial light modulator / CHOI Minho¹, CHOI Jaewu¹

(¹Information Display, Kyung Hee University)

[C13-C15] No Session

[C16-bp] Cellular biological physics & Theoretical & computational biological physics

2020. 07. 13 Monday 15:20~17:20

Room: 16

좌장 : 박혜윤 서울대학교

Chair : PARK Hyeyoon (Seoul National University)

C16.01 [15:20 - 15:44]

Capturing protein cluster dynamics and gene expression output in live cells / CHO

Won-Ki^{*1} (¹Department of Biological Sciences, KAIST)

C16.02 [15:44 - 15:56]

Listening to lipid membranes / LEE Kisung¹, CHOMMANOV Gurban^{1,2,3}, GRANICK Steve^{*1,3} (¹Center for Soft and Living Matter, IBS, ²Department of Energy and Chemical Engineering, Ulsan National Institute of Science and Technology, ³Department of Chemistry, Ulsan National Institute of Science and Technology)

C16.03 [15:56 - 16:08]

Three-dimensional large-area label-free examination of cell migration using optical diffraction tomography / LEE Ariel J.^{1,2}, HUGONNET Herve^{1,2}, PARK WeiSun^{1,2}, PARK YongKeun^{*1,2,3} (¹Physics, KAIST, ²KAIST Institute for Health Science and Technology, KAIST, ³, Tomocube Inc.)

C16.04 [16:08 - 16:20]

Non-invasive three-dimensional (3D) imaging and quantitative characterisation of vasculogenesis of 3D cultured endothelial cells inside a microfluidic chip using optical diffraction tomography (ODT) / PARK YongKeun^{*1,3}, LEE Chungha¹, KIM Seunggyu², HUGONNET Herve¹, LEE Moosung¹, JEON Jessie S^{2,3}, PARK Weisun¹ (¹Physics, KAIST, ²Mechanical engineering, KAIST, ³Health Science and Technology, KAIST)

C16.05 [16:20 - 16:32]

혈액암 세포의 PPI 관측을 통한 BH₃ mimetic drug 동반진단기술 개발 / CHA Minkwon¹, CHUN Changju², YOON Tae-Young^{*2} (¹Department of Physics, KAIST, ²Seoul National University)

C16.06 [16:32 - 16:44]

Heterogeneous diffusion of purinosomes in live cells: application of machine learning and its stochastic modeling / JUNG Yurim¹, KIM Doory², JEON Jae-Hyung^{*1} (¹Department of Physics, POSTECH, ²Department of Chemistry, Hanyang University)

C16.07 [16:44 - 17:08]

Transition path times and shapes: Theory and examples / KIM Won Kyu^{*1}, NETZ Roland R² (¹School of Computational Sciences, KIAS, ²Department of Physics, Freie Universität Berlin, Germany)

C16.08 [17:08 - 17:20]

Log-normally distributed velocity distribution of immature dendritic cell in 1D channel / SONG Taegeun^{*1}, UM Eujin², CHO Yoon-Kyoung^{3,4}, JEON Jae-Hyung^{*1} (¹Department of Physics, POSTECH, ²School of Natural Science, UNIST, ³School of Life Sciences, UNIST, ⁴Center for Soft and Living Matter, IBS)

Session D

2020 July 14(Tue) 09:00-10:48

[D1-pa] Accelerator III

2020. 07. 14 Tuesday 09:00~10:36

Room: 01

좌장 : 유재혁 고려대학교

Chair : YOO Jae Hyeok (Korea University)

D

D1.01 [09:00 - 09:12]

Search for a right-handed W boson and heavy neutrino in proton-proton collisions at $\sqrt{s} = 13$ TeV / YANG Un-ki^{*1}, KIM Jae Sung Kim¹ (¹Department of physics and astronomy, Seoul National University)

D1.02 [09:12 - 09:24]

Search for new physics in the monophoton final state in proton-proton collisions at $\sqrt{s}=13$ TeV with full Run II dataset / LEE Hakseong¹, MOON Chang-Seong¹, DOGRA Sunil Manohar¹ (¹Department of Physics, Kyungpook National University)

D1.03 [09:24 - 09:36]

Performance of high-momentum muons at CMS / OH Minseok^{*1}, YOO Hwidong^{*2} (¹Department of Physics, Seoul National University, ²Department of Physics, Yonsei University)

D1.04 [09:36 - 09:48]

Identification of a pair of di-lepton with boosted signature in the CMS experiment / KO Sanghyun¹, YOO Hwidong^{*2} (¹Department of Physics, Seoul National University, ²Yonsei University)

D1.05 [09:48 - 10:00]

Background estimation for Dark Higgs searches with Coffea framework / MOON Chang-Seong^{*1}, LEE Jongho¹ (¹Department of Physics, Kyungpook National University)

D1.06 [10:00 - 10:12]

MET Resolution Study of the Level-1 MET Trigger for CMS Phase-2 Upgrade / MOON Chang-Seong^{*1}, KIM Daekwon¹ (¹Department of Physics, Kyungpook National University)

D1.07 [10:12 - 10:24]

MET regression with machine learning for CMS Level-1 Trigger Upgrade / SEO YeongDeok¹, MOON Chang-Seong^{*1} (¹Department of Physics, Kyungpook National University)

D1.08 [10:24 - 10:36]

Development of MET HLS algorithm on the FPGA for CMS Phase-2 Level-1 trigger / MOON Chang-Seong¹, HONG Jieun¹ (¹Department of Physics, Kyungpook National University)

[D2] No Session

[D3-nu] Nuclear Reaction & Structure

2020. 07. 14 Tuesday 09:00~10:12

Room: 03

좌장 : 천명기 송실대학교

Chair : CHEOUN Myung Ki (Soongsil University)

D3.01 [09:00 - 09:12]

Prediction of neutron drip line location in the deformed relativistic Hartree-Bogoliubov theory with continuum / IN Eun Jin¹, PAPAKONSTANTINOUS Panagiota², KIM Youngman², HONG Seung Woo³ (¹Department of Energy Science, Sungkyunkwan University, ²RISP, IBS, ³Sungkyunkwan University)

D3.02 [09:12 - 09:24]

Non-zero transverse single spin asymmetry of very forward π^0 in polarized p + p collisions at $\sqrt{s} = 510$ GeV / KIM Minho¹ (¹Department of Physics, Korea University)

D3.03 [09:24 - 09:36]

Microscopic sd-shell effective interaction obtained from NCSM / SHIN Ik Jae¹, SMIRNOVA Nadya², SHIROKOV Andrey³ (¹RISP, IBS, ²., CENBG, ³SINP, Moscow State University)

D3.04 [09:36 - 09:48]

Quantum Many-Body Calculations using Body-Centered Cubic Lattices / SONG Young-Ho¹, KIM Youngman¹, LI Ning², LU Bing-Nan², HE Rongzheng², LEE Dean² (¹Rare Isotope Science Project, Institute for Basic Science, ²Facility for Rare Isotope Beams and Department of Physics and Astronomy, Michigan State University)

D3.05 [09:48 - 10:00]

MoO₃ powder measurements with an array of HPGe detectors / PARK Su-yeon^{1,2}, HAHN Insik^{3,4}, KANG Woongu², KIM Gwoon², LEE Eunkyung², LEONARD Douglas S.², KAZALOV Vladimir⁵, KIM Yeongduk^{2,6}, LEE Moo Hyun^{2,6} (¹Department of Physics, Ewha Womans University, ²IBS Center for Underground Physics, IBS, ³Department of Science Education, Ewha Womans University, ⁴Center for Exotic Nuclear Studies, IBS,

⁵Baksan Neutrino Observatory, Institute for Nuclear Research of the Russian Academy of Science, ⁶IBS school, UST)

D3.06 [10:00 - 10:12]

Pathways of the emitted free nucleons from heavy-ion collision in the intermediate energy / KIM Kyungil^{*1} (¹Rare Isotope Science Project, IBS)

D

[D4-co] Strongly Correlated/Dielectric/Functional Oxides I

2020. 07. 14 Tuesday 09:00~10:12

Room: 04

좌장 : 조길영 포항공과대학교

Chair : CHO Gil Young (POSTECH)

D4.01 [09:00 - 09:12]

Pressure-Induced Mott Insulator-Metal Transitions in Layered Chalcogenides / KIM Heung-Sik^{*1} (¹Department of Physics, Kangwon National University)

D4.02 [09:12 - 09:24]

Identification of a Kitaev Quantum Spin Liquid by Magnetic Field Angle Dependence / GO Ara^{*1}, HWANG Kyusung², SEONG Ji Heon³, SHIBAUCHI Takasada⁴, MOON Eun-Gook³ (¹Center for Theoretical Physics of Complex Systems, IBS, ²Department of Physics, KIAS, ³Department of Physics, KAIST, ⁴Department of Advanced Materials Science, University of Tokyo)

D4.03 [09:24 - 09:36]

Numerical approach to calculate multipolar interactions in Mott insulators / KIM Beom Hyun^{*1} (¹School of Computational Sciences, KIAS)

D4.04 [09:36 - 09:48]

Effect of correlation on nearly flat bands in twisted bilayer graphene / HAN Mancheon¹, CHOI Young Woo¹, CHOI Hyoung Joon^{*1} (¹Department of Physics, Yonsei University)

D4.06 [09:48 - 10:00]

Ginzberg-Landau-Wilson theory for Kondo lattice from holographic principle / SIN Sang Jin^{*1}, OH Eunseok¹, SEO Yunseok², YUK Taewon¹ (¹physics department, Hanyang University, ²school of physics and chemistry, Gwangju Science Academy)

[D5-co] Focus: Nano/meso sys, graphene & Topological Materials

2020. 07. 14 Tuesday 09:00~10:48

Room: 05

좌장 : 김태환 포항공과대학교

Chair : KIM Tae-Hwan (POSTECH)

D5.01 [09:00 - 09:36]

Evidence of Higher Order Topology in Multilayer WTe_2 from Josephson Coupling through Anisotropic Hinge States / CHOI Yong-Bin¹, XIE Yingming², CHEN Chui-Zhen², PARK Jinho¹, SONG Su-Beom³, YOON Jiho⁴, KIM Bum Joon^{1,5}, TANIGUCHI Takashi⁶, WATANABE Kenji⁶, KIM Jong-Hwan³, FONG Kin Chung⁷, ALI Mazhar N.⁴, LAW Kam Tuen², LEE Gil-Ho^{*1} (¹Department of Physics, POSTECH, ²Department of Physics, HKUST, ³Department of Materials Science and Engineering, POSTECH, ⁴Microstructure Physics, Max Plank Institute for Microstructure Physics, ⁵Center for Artificial Low Dimensional Electronic Systems, IBS, ⁶Research Center for Functional Materials, NIMS, ⁷Quantum Information Processing Group, Raytheon BBN Technologies)

D5.02 [09:36 - 10:12]

Tailoring spin orientation via manipulating electronic structure in two-dimensional magnet CrI_3 / KIM Jeongwoo^{*1} (¹Dept. of Physics, Incheon National University)

D5.03 [10:12 - 10:48]

A Viscous Graphene Electronic Diode / KIM Youngwook^{*1} (¹Department of Emerging Materials Science, DGIST)

[D6-co] Focus: Quantum phenomena in low D oxides

2020. 07. 14 Tuesday 09:00~10:48

Room: 06

좌장 : 최우석 성균관대학교

Chair : CHOI Woo Seok (Sungkyunkwan University)

D6.01 [09:00 - 09:36]

Multiferroicity in Bilayer Perovskites / OH Yoon Seok^{*1} (¹Department of Physics, UNIST)

D6.02 [09:36 - 10:12]

Harnessing the topotactic transition in oxide heterostructures for fast and high-efficiency electrochromic applications / YANG Chan-Ho^{*1,2}, LIM Ji Soo^{1,2} (¹Physics, KAIST, ²Center for Lattice Defectronics, KAIST)

D6.03 [10:12 - 10:48]

Ferroelectricity of Si-doped HfO₂ for Analog Device / CHAE Seung Chul¹ (¹Dept. of Physics Education, Seoul National University)

[D7-ap] Focus: Ferroelectricity in doped-HfO₂ thin films I

2020. 07. 14 Tuesday 09:00~10:12

Room: 07

좌장 : 양상모 서강대학교

Chair : YANG Sang Mo (Sogang University)

D

D7.01 [09:00 - 09:24]

Device Engineering of Sputtered HfZrO_x Ferroelectric Films / 우지용¹, 김정훈¹, 임종필¹, 임솔이¹, 김예리아론¹, 문승연¹ (¹한국전자통신연구원 ICT 창의연구소)

D7.02 [09:24 - 09:48]

Demonstrations on Nonvolatile Memory and Neuromorphic Synapse Transistors Using Al-doped HfO₂ Ferroelectric Thin Films / YOON Sung-Min¹, YOON So-Jung¹, MIN Dae-Hong¹, MOON Seung-Eon² (¹Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, ²ICT Creative Laboratory, ETRI)

D7.03 [09:48 - 10:12]

평평한 에너지 밴드에 의해 유닛셀 크기 최소 분극을 개별 조작할 수 있는 새로운 강유전성 / LEE Jun Hee¹ (¹School of Energy & Chemical Engineering, UNIST)

[D8-ap] Nanomaterials I

2020. 07. 14 Tuesday 09:00~10:24

Room: 08

좌장 : 김경호 충북대학교

Chair : KIM Kyoung-Ho (Chungbuk National University)

D8.01 [09:00 - 09:24]

그래핀으로 감싼 BaTiO₃ 기반의 유전복합물질의 유전 특성과 이를 활용한 무기 전계발광 특성 / JUN SoYeon¹, YU SeGi² (¹Dept. Physics, Sungkyunkwan University, ²Hankuk University of Foreign Studies)

D8.02 [09:24 - 09:36]

Interlayer coupled phonons of van der Waals heterostructures / YOON Duhee¹ (¹Center for Integrated Nanostructure Phys, Sungkyunkwan University)

D8.03 [09:36 - 09:48]

Selective-area remote heteroepitaxy of ZnO microrod arrays on patterned all-graphene surface / JEONG Junseok^{1,2}, HONG Young Joon^{*1,2} (¹Nanotechnology and Advanced Materials Engineering, Sejong University, ²GRI-TPC international Research Center, Sejong University)

D8.04 [09:48 - 10:00]

비정질 실리콘 및 그래핀을 이용한 유연한 광 센서 / KIM Wonjae¹, CHOI Minho¹, CHOI Jaewu^{*1} (Information Display, Kyung Hee University)

D8.05 [10:00 - 10:12]

Graphene based nano-electro-mechanical resonator for radio application / JE Yugyeong^{1,2}, SHIN Dong-Hoon^{1,2}, YOON Juhee^{1,2}, LEE Sang-Wook^{*1,2} (¹Ewha Womans University, ²Department of Physics, Ewha Womans University)

D8.06 [10:12 - 10:24]

In-situ TEM Observation of dynamic changes on Graphene / JEONG HyunJeong¹, JE Yugyeong¹, SHIN Dong Hoon¹, INANI Heena², MUSTONEN Kimmo², MANGLER Clemens², KOTAKOSKI Jani², LEE Sang-Wook^{*1} (¹Ewha Womans University, ²Faculty of Physics, University of Vienna)

[D9-st] Complex Systems and Bio Physics

2020. 07. 14 Tuesday 09:00~10:48

Room: 09

좌장 : 손승우 한양대학교

Chair : SON Seung-Woo (Hanyang University)

D9.01 [09:00 - 09:24]

Network science: Standing on the edges of a giant collaboration network / LEE Sang Hoon^{*1} (¹Department of Liberal Arts, Gyeongnam National University of Science and Technology)

D9.02 [09:24 - 09:36]

국제관계와 자산가격 간의 관계 분석: 엔터테인먼트 기업을 중심으로 / JOO Kyohun^{*1}, CHOI Wonjin² (¹Moon Soul Graduate School for Future Strategy, KAIST, ²NLCS, North London Collegiate School Jeju)

D9.03 [09:36 - 09:48]

국가이미지의 유사성 분석에 기반을 둔 국제관계에 대한 연구 / JOONG HYEON Kim^{*1}, JAE SUK Yang¹, OKYU Kwon², SEOK JUN Lee¹ (¹Moon Soul Graduate School of Future Strategy, KAIST, ²Division of Medical Mathematics, National Institute for Mathematical Sciences)

D9.04 [09:48 - 10:00]

Prediction of sea level rise and volatility analysis near the Korean Peninsula / KIM Young Jin¹, KWON Okyu¹, SONG Hark-Soo¹, KANG Hyuk¹ (NIMS)

D9.05 [10:00 - 10:12]

Quantum Attractors and Complex Spacing statistics / THINGNA Juzar Yahya¹ (PCS, IBS)

D9.06 [10:12 - 10:24]

Effect of Diverse Spiking Patterns of Granule Cells on Optokinetic Response in The Cerebellum / KIM Sang-Yoon¹, LIM Woochang¹ (Daegu National University Of Education)

D9.07 [10:24 - 10:36]

Glassy dynamics of compressed pulmonary surfactant monolayers / KIM Yeonghoon¹, LIEKKINEN Juho², MARTINEZ-SEARA Hector³, JAVANAINEN Matti³, JEON Jae-Hyung¹ (1Department of Physics, POSTECH, 2Department of Physics, University of Helsinki, 3Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences)

D9.08 [10:36 - 10:48]

Persistence of harmful intragenomic elements in bacterial populations / PARK Hye Jin¹, GOKHALE Chaitanya², BERTELS Frederic³ (1Statistical physics of ecology and Evolution, APCTP, 2Theory Department, Max Planck Institute for Evolutionary Biology, 3Department Microbial Population Biology, Max Planck Institute for Evolutionary Biology)

[D10-te] Focus: New direction of physics education

2020. 07. 14 Tuesday 09:00~10:12

Room: 10

좌장 : 정용욱 경상대학교 물리교육

Chair : JUNG Yong Woo Kyung Hee University

D10.01 [09:00 - 09:24]

딥러닝 및 머신러닝을 활용한 물리교육의 활용 방안 / JHO Hunkoog¹ (Graduate school of education, Dankook University)

D10.02 [09:24 - 09:48]

물리교육과 텍스트 네트워크 분석 / 윤은정¹, 박윤배² (1경북대학교 과학교육연구소, 2경북대학교 물리교육과)

D10.03 [09:48 - 10:12]

2020 발명교육 현황과 물리교육에의 시사점 / 정용욱¹, 김민기² (1경상대학교 물리교육과, 2한국 발명진흥회)

[D11-D12] No Session

[D13-at] Atomic, Molecular and Optical Physics I

2020. 07. 14 Tuesday 09:00~10:24

Room: 13

좌장 : 홍현규 한국표준과학연구원

Chair : HONG Hyun-Gue (KRISS)

D13.01 [09:00 - 09:24]

Probing the superfluid order parameters via dc Josephson supercurrents / KWON Woo Jin^{1,2}, G. DEL Pace², INGUSCIO M.^{1,2}, ZWERGER W.³, ZACCANTI M.^{1,2}, SCAZZA F.^{1,2}, ROATI G.^{1,2} (¹Istituto Nazionale di Ottica del Consiglio Nazionale delle Ricerche (CNR-INO), Italy, ²European Laboratory for Nonlinear Spectroscopy (LENs), Italy, ³Physics Department, Technische Universität München, Germany)

D13.02 [09:24 - 09:36]

Progress in investigating a universality in vortex shedding dynamics in a superfluid / LIM Younghoon¹, GOO Junhong¹, LEE YangHeon¹, SHIN Yong-il¹ (¹Department of Physics and Astronomy, Seoul National University)

D13.03 [09:36 - 09:48]

Emission of entangled matter-wave jet from spinor Bose-Einstein condensates / KIM Kyungtae¹, HUR Junhyeok¹, HUH SeungJung¹, KWON Kiryang¹, CHOI Soonwon², CHOI Jae Yoon¹ (¹Physics Department, KAIST, ²Department of Physics, UC Berkeley)

D13.04 [09:48 - 10:00]

Crossover of early quench dynamics from weak to strong quench in a spinor Bose-Einstein condensate. / KANG Seji^{1,2}, HONG Deokhwa¹, KIM Joon Hyun¹, SHIN Yong-il^{1,2} (¹Department of Physics and Astronomy, Seoul National University, ²Center for Correlated Electron Systems, CCES (IBS))

D13.05 [10:00 - 10:12]

Progress towards development of a quantum simulator based on ultracold Yb atoms at KRISS / JUNG Haejun^{1,2}, LEE Jae Hoon¹, CHOI Jae-yoon², MUN Jongchul¹ (¹center for time and frequency, KRISS, ²Department of Physics, KAIST)

D13.06 [10:12 - 10:24]

Review on recent development in quantum walk and search in Markov chains / CHOI Nark Nyul¹, LEE Min-Ho¹ (¹School of Liberal Arts and Teacher Training, Kumoh National Institute of Technology)

[D14-se] Device-Energy Harvestion and Storage

2020. 07. 14 Tuesday 09:00~10:12

Room: 14

좌장 : 정문석 성균관대학교

Chair : JEONG Mun Seok (Sungkyunkwan University)

D14.01 [09:00 - 09:12]

NaF layer insertion for improving efficiency of flexible solar cells in kesterite $\text{Cu}_2\text{ZnSn}(\text{S,Se})_4$ solar cells / KIM Juran¹, KIM Sammi², YANG Kee-Jeong², KIM Dae-Hwan², KANG Jin-Kyu², JO William^{*1} (¹Department of Physics, Ewha Womans University, ²Convergence Research Center for Solar Energy, DGIST)

D14.02 [09:12 - 09:24]

에너지 저장소재를 위한 금속 황화물 나노 입자의 합성 및 특성 분석 / S. Junied Arbaz¹, S. Chandra Sekhar¹, RAMULU Bhimanaboina¹, YU Jae Su^{*1} (¹Department of Electronic Engineering, Kyung Hee University)

D14.03 [09:24 - 09:36]

리튬이온 배터리의 양극 재료로서 CeVO_4 /탄소나노튜브 하이브리드 나노 구조의 합성 / D. Narsimulu¹, S. Chandra Sekhar¹, ASHOK Kumar Kakarla¹, YU Jae Su^{*1} (¹Department of Electronic Engineering, Kyung Hee University)

D14.04 [09:36 - 09:48]

졸겔 방법으로 제작한 IGZO TFTs에 PMMA코팅이 소자특성에 미치는 영향 / KIM Byeong Wan¹, LEE Hyun Kyung¹, PARK Hye Jin¹, KANG Haeyong^{*1} (¹Department of Physics, Pusan National University)

D14.05 [09:48 - 10:00]

Growth and drug reaction monitoring of NIH 3T3 cells using impedance biosensor / LEE Ga Young^{1,2}, JEONG Jae Hun^{1,2}, SHIN Soo Yong^{1,3}, JEON Sung Ho^{1,3}, JANG Moon Gyu^{*1,2,4} (¹Hallym University, ²School of Nano Convergence Technology, Hallym University, ³Department of Life Science and Multidisciplinary Institute, Hallym University, ⁴Center of Nano Convergence Technology, Hallym University)

D14.06 [10:00 - 10:12]

Highly asymmetric optical properties of $\beta\text{-Ga}_2\text{O}_3$ as probed by linear and nonlinear optical excitation spectroscopy / CHO Jeongbin¹, JUNG Gunwoo², KIM Kyuheon², KIM Ji hoon¹, SONG Jung Hoon², JANG Joon Ik^{*1} (¹Physics, Sogang University, ²Physics, Kongju National University)

[D15-as] Astrophysics Theories

2020. 07. 14 Tuesday 09:00~10:36

Room: 15

좌장 : 송용선 한국천문연구원

Chair : SONG Yong Seon (KASI)

D15.01 [09:00 - 09:12]

General relativistic three dimensional simulations of the accretion disks onto black holes / KIM Jinho¹, GARAIN Sudip Kumar¹ (¹Center for Theoretical Astronomy, KASI)

D15.02 [09:12 - 09:24]

Scattering Angles for Encountering Two Black Holes / KANG Gungwon¹, BAE Yeong-Bok², HYUN Young-Hwan¹ (¹Supercomputing Center, KISTI, ²Division of Basic Researches for Industrial Mathematics, NIMS)

D15.03 [09:24 - 09:36]

Weak Lensing Mass Map Reconstruction of Merging Clusters with Convolutional Neural Network / HONG Sungwook E¹, PARK Sangnam¹, JEE James², BAK Dongsu^{1,3} (¹Natural Science Research Institute, University of Seoul, ²Department of Astronomy, Yonsei University, ³Department of Physics, University of Seoul)

D15.04 [09:36 - 09:48]

Implication of Perturbative Unitarity to Quasi-Single Field Inflation / KIM Suro¹, NOUMI Toshifumi¹, TAKEUCHI Keito¹, ZHOU Siyi² (¹Department of Physics Faculty of Science, Kobe University, ²Department of Physics, Stockholm University)

D15.05 [09:48 - 10:00]

Application of geometrothermodynamics to some systems with strong interactions described by the method of holographic dualities / ZAZULIN Denis Mikhailovich^{1,2}, ORMANTAEV Orken¹, EZAU Petr Davydovich¹, KEMELZHANOVA Sandugash Esteuovna¹, KIM Sung Won³ (¹Theoretical and Nuclear Physics, al-Farabi Kazakh National University, Almaty, Kazakhstan, ²Theoretical Physics, Institute of Nuclear Physics, Almaty, Kazakhstan, ³Science Education, Ewha Womans University)

D15.06 [10:00 - 10:12]

Quasinormal Modes of Scalar Field in Higher-Dimensional de Sitter Black Holes / GWAK Bo Geun¹ (¹Physics and Semiconductor Science, Dongguk University-Seoul)

D15.07 [10:12 - 10:24]

Deflection of light rays and shadow cast by a rotating black hole / LEE Wonwoo¹, LEE Bum-Hoon^{1,2}, MYUNG Yun Soo³ (¹Center for Quantum Spacetime, Sogang University, ²Physics, Sogang University, ³Department of Computer Simulation, Inje University)

D15.08 [10:24 - 10:36]

Extension of 1+3 formalism and its application to numerical relativity / PARK Chan^{*1}

(¹Division of Basic Researches for Industrial Mathematics, NIMS)

D

Session E

2020 July 14(Tue) 11:10-12:58

[E1-pa] Accelerator IV

2020. 07. 14 Tuesday 11:10~12:10

Room: 01

좌장 : 이세욱 경북대학교

Chair : LEE Sehwook (Kyungpook National University)

E1.01 [11:10 - 11:22]

Top quark pair reconstruction using an attention-based neural network / LEE Jason Sang Hun¹, PARK Inkyu¹, WATSON Ian James¹, YANG Seungjin¹ (¹Department of Physics, University of Seoul)

E1.02 [11:22 - 11:34]

R-Parity Violating Supersymmetry event classification using Convolutional Neural Network with Large Scale Deep Learning / KIM Jiwoong¹, LEE Seunghwan², NAM Hokyong¹, GOH Junghwan², MOON Chang-Seong¹, BAE DongSung², YOO Chaghyun² (¹Department of Physics, Kyungpook National University, ²Department of Physics, Kyung Hee University)

E1.03 [11:34 - 11:46]

Application of Graph Neural Network on RPV SUSY Event Classification / GOH Junghwan¹, MOON Changseong², LEE Seunghwan¹, KIM Jiwoong², BAE Dongsung¹, NAM Hokyong², YOO Changhyun¹, LEE Jongho² (¹Department of Physics, Kyung Hee University, ²Department of Physics, Kyungpook National University)

E1.04 [11:46 - 11:58]

Simulation for Particle Shower in EM Calorimeter with Deep Learning (Generative Adversarial Network) / LEE Jason Sang Hun¹, PARK Inkyu¹, WATSON Ian James¹, RYU Min Sang¹, PARK Jong Suk¹, LEE Yunjae¹, KIM Jua¹, CHOI Suyong³, KO Sanghyun⁴, LEE Seh Wook², LEE Junghyun², YOO Hwidong⁵, KIM Minsoo⁵, HWANG Kyuyeong⁵, EO Yun⁵ (¹Department of Physics, University of Seoul, ²Department of Physics, Kyungpook National University, ³Department of Physics, Korea University, ⁴Department of Physics, Seoul National University, ⁵Department of Physics, Yonsei University)

E1.05 [11:58 - 12:10]

Overview and status of Dual-Readout Calorimeter R&D for future collider projects / HWANG Kyuyoung¹, KIM Minsoo¹, KO Sanghyun³, LEE Jason⁴, LEE Junghyun², LEE Sehwook², LEE Yunjae⁴, PARK Jongseok⁴, RYU Minsang⁴, WATSON Ian⁴, YOO

Hwidong*¹ (¹Department of Physics, Yonsei University, ²Department of Physics, Kyungpook National University, ³Department of Physics, Seoul National University, ⁴Department of Physics, University of Seoul)

[E2-pa] Accelerator V

2020. 07. 14 Tuesday 11:10~13:10

Room: 02

좌장 : 하창현 중앙대학교

Chair : HA Chang Hyon (Chung-Ang University)

E

E2.01 [11:10 - 11:22]

Status of AMoRE / OH Yoo Min*¹ (IBS)

E2.02 [11:22 - 11:34]

Status of AMoRE-I / KIM HAN BEOM*^{1,2}, ON AMoRE Collaboration The behalf of² (¹Department of Physics and Astronomy, Seoul National University, ²Center for Underground Physics, IBS)

E2.03 [11:34 - 11:46]

A study on AMoRE light detector / KIM Yeongduk*^{1,2}, **KIM Wootae***^{1,2}, **KIM SeungCheon**¹, **SO JungHo**¹ (¹IBS Center for Underground Physics, IBS, ²IBS School, Department of basic science, UST)

E2.04 [11:46 - 11:58]

Alpha Background Simulation for AMoRE-Pilot Experiment / SARI Mona Berlian*^{1,2}, **JEON Eunju**¹, **KIM HongJoo**³, **DJAMAL Mitra**² (¹Center for Underground Physics, IBS, ²Department of Physics, Bandung Institute of Technology, ³Department of Physics, Kyungpook National University)

E2.05 [11:58 - 12:10]

Status of AMoRE-Pilot data analysis and background modeling / OH Yoo Min*¹, **SEO Kyungmin**^{1,2} (IBS, ²department of physics, Sejong University)

E2.06 [12:10 - 12:22]

Alpha counting measurements for rare event search experiment at CUP / LEE Eunkyung¹, **KIM Yeongduk***¹, **HA Chang Hyon**², **LEE Hyunsu**¹, **LEE Moo Hyun**¹, **YONG Suk Hyun**¹ (¹IBS Center for Underground Physics, IBS, ²Department of Physics, Chung-Ang University)

E2.07 [12:22 - 12:34]

Detection possibility of a new gauge boson with the SHiP experiment / 고재우¹, **박병도**¹, **손종윤**¹, **윤천실**¹, **이강영**¹, **이경세**², **KIM Yeong Gyun***³, **최기영**⁴, **우종관**⁵ (¹물리교육과,

Gyeongsang National University, ²KODEL, Korea University, ³Gwangju National University of Education, ⁴Physics Department, Sungkyunkwan University, ⁵Physics Department, Jeju National University)

E2.08 [12:34 - 12:46]

Development of a Novel Detector for KNU Advanced Positronium Annihilation Experiment (KAPAE) / PARK Hyeoungwoo¹, ARSHAD Khan¹, HWANG Sanghoon², JUNG Dongwoo¹, JIN Jegal¹, KIM Hong Joo^{*1} (¹Department of Physics, Kyungpook National University, ²Center for Ionizing Radiation, Korea Research Institute of Standards and Science (KRISS))

E2.09 [12:46 - 12:58]

Geant4 profiling on an evolving computing architecture / CHO Kihyeon^{*1} (¹KISTI, UST)

E2.10 [12:58 - 13:10]

Overview of Neutrino Elastic-scattering Observation with NaI(Tl) : The NEON experiment / HA Chang Hyon^{*1} (¹Department of Physics, Chung-Ang University)

[E3-nu] Heavy-ion collision

2020. 07. 14 Tuesday 11:10~13:10

Room: 03

좌장 : 임상훈 부산대학교

Chair : LIM Sang Hoon (Pusan National University)

E3.01 [11:10 - 11:22]

f₀(980) resonance production with ALICE / KIM Junlee^{*1}, KIM Eun-Joo¹, KIM Beomkyu² (¹Division of Science Education, Jeonbuk National University, ²Department of Physics, Inha University)

E3.02 [11:22 - 11:34]

Study of the string shoving model in Pythia8 for long-range correlation in pp collisions / KIM Junlee^{*1}, KIM Eun-Joo¹, LIM Sanghoon², JI SuJeong² (¹Division of Science Education, Jeonbuk National University, ²Department of Physics, Pusan National University)

E3.03 [11:34 - 11:46]

Elliptic flow studies of Upsilon states in PbPb collisions with the CMS experiment / BAK Gyeonghwan^{*1}, MOON DongHo¹, KIM Yongsun³, KIM Hyunchul¹, LEE Hanseul¹, PARK JaeBeom² (¹Department of Physics, Chonnam National University, ²Department of Physics, Korea University, ³Department of Physics and Astronomy, Sejong University)

E3.04 [11:46 - 11:58]

Measurement of $\Xi^0 c$ baryon in pp collisions with ALICE at the LHC / SEO Jinjoo¹, KWEON Min Jung¹ (¹Inha University)

E3.05 [11:58 - 12:10]

Recent progress of nPDFs studies with electroweak probes with the CMS detector / KIM Hyunchul^{1,2}, MOON Dong Ho¹, KIM Yongsun³ (¹Department of Physics, Chonnam National University, ²Research institute of basic sciences, Seoul National University, ³Department of Physics and Astronomy, Sejong University)

E3.06 [12:10 - 12:22]

ALICE에서 수행한 질량 중심 에너지 5.02TeV 납-납 충돌에서 바닥쿼크를 포함한 강입자로 부터 붕괴한 전자의 측정 / PARK Jonghan¹, KWEON Min Jung¹ (¹Inha University)

E3.07 [12:22 - 12:34]

Signatures of collectivity in small collision systems observed by PHENIX experiment at RHIC / HONG Byungsik¹, HAN Seyoung¹ (¹Department of Physics, Korea University)

E3.08 [12:34 - 12:46]

K* and K₁ production from heavy-ion collision / LEE Su Houg¹, SUNG Haesom¹, HONG Juhee¹, CHO Sungtae² (¹Yonsei University, ²Department of Physics, Kangwon National University)

E3.09 [12:46 - 12:58]

Azimuthal anisotropy and nuclear modification of Upsilon states in heavy-ion collisions with the CMS detector / HONG Byungsik¹, PARK JaeBeom¹ (¹Department of Physics, Korea University)

E3.10 [12:58 - 13:10]

Two-particle correlation via Bremsstrahlung / YOON Jin-Hee¹, CHO Soyeon¹ (¹Dept. of Physics, Inha University)

[E4-co] Strongly Correlated/Dielectric/Functional Oxides II

2020. 07. 14 Tuesday 11:10~12:34

Room: 04

좌장 : 이대수 포항공과대학교

Chair : LEE Daesu (POSTECH)

E4.01 [11:10 - 11:22]

Atomic-scale Metal-Insulator Transition in SrRuO₃ Ultrathin Films Triggered by Surface Termination Conversion / LEE Han Gyeol^{1,2}, WANG Lingfei^{1,2}, KIM Jeong Rae^{1,2}, KO Eun Kyo^{1,2}, KIM Jinkwon^{1,2}, PARK Sung Min^{1,2}, KIM Bongju^{1,2}, NOH Tae Won^{1,2}

(¹Department of Physics and Astronomy, Seoul National University, ²Center for Strongly Correlated Systems, Institute for Basic Science)

E4.02 [11:22 - 11:34]

Observation of Kondo hybridization with orbital-selective Mott phase in 4d $\text{Ca}_{2-x}\text{Sr}_x\text{RuO}_4$ / KIM Minsoo^{1,2}, KYUNG Wonshik^{1,2}, KIM Changyoung^{*1,2} (¹Department of Physics and Astronomy, Seoul National University, ²CCES (IBS), CCES (IBS), ³Advanced Light Source, Lawrence Berkeley National Laboratory, ⁴AIST, AIST)

E4.03 [11:34 - 11:46]

Electronic origin of the octahedral rotation in perovskite oxides / KYUNG Wonshik^{1,2}, JANG Hoyoung³, CHUN Saehwan³, KWON Junyoung^{1,2}, KIM Minsoo^{1,2}, SOHN Byungmin^{1,2}, KIM Changyoung^{*1,2} (¹Department of Physics and Astronomy, Seoul National University, ²Group 3, CCES (IBS), ³XFEL, Pohang Accelerator Laboratory)

E4.04 [11:46 - 11:58]

Spin-orbit coupled Hund's metal Sr_2RuO_4 in the vicinity of van Hove singularity / LEE Hyeong Jun¹, KIM Choong H.^{2,3}, GO Ara¹ (¹PCS, IBS, ²CCES, IBS, ³Department of Physics and Astronomy, Seoul National University)

E4.05 [11:58 - 12:10]

Dispersive magnetic excitations with dominant bond-directional exchange interactions in a honeycomb lattice iridate $\alpha\text{-Li}_2\text{IrO}_3$ / CHUN SAE HWAN^{*1,2,3}, STAVROPOULOS P. Peter², KEE Hae-Young^{2,4}, SALA M. Moretti^{5,6}, KIM Jungho⁷, KIM Jong-Woo⁷, KIM B. J.⁸, MITCHELL J. F.¹, KIM Young-June² (¹Materials Science Division, Argonne National Laboratory, ²Department of Physics, University of Toronto, ³XFEL division, Pohang Accelerator Laboratory, ⁴Quantum Materials, Canadian Institute for Advanced Research, ⁵ESRF, The European Synchrotron, ⁶Dipartimento di Fisica, Politecnico di Milano, ⁷Advanced Photon Source, Argonne National Laboratory, ⁸Department of Physics, Pohang University of Science and Technology)

E4.06 [12:10 - 12:22]

Doping and Temperature Evolutions of Optical Response of $\text{Sr}_3(\text{Ir}_{1-x}\text{Ru}_x)_2\text{O}_7$ / AHN Gihyeon¹, SCHMEHR Julian L.², PORTER Zach², WILSON S. D.², MOON Soonjae^{*1} (¹Department of Physics, Hanyang University, ²Materials Department, University of California, Santa Barbara)

E4.07 [12:22 - 12:34]

Nonsymmorphic Dirac semimetal and carrier dynamics in doped spin-orbit-coupled Mott insulator Sr_2IrO_4 / KIM Sun-Woo¹, HAN J. W.², KYUNG W. S.^{3,4,5}, KIM C.^{4,5}, CAO G.⁶, CHEN X.⁷, WILSON S. D.⁷, LEE J. S.², CHEON Sang Mo^{*1} (¹Department of Physics, Hanyang University, ²Department of Physics and Photon Science, GIST, ³Advanced Light Source, Lawrence Berkeley National Laboratory, ⁴Center for Correlated

Electron Systems, Institute for Basic Science (IBS), ⁵Department of Physics and Astronomy, Seoul National University, ⁶Department of Physics, University of Colorado at Boulder, ⁷Department of Materials, UCSB)

[E5-co] Focus: Nano/meso sys: Quantum Coherence in Condensed Matter Physics

2020. 07. 14 Tuesday 11:10~12:58

Room: 05

좌장 : 심흥선 한국과학기술원

Chair : SIM Heung-Sun (KAIST)

E

E5.01 [11:10 - 11:46]

Aharonov-Bohm interference in a triangular network of one-dimensional states in marginally twisted bilayer graphene / KIM Minsoo^{*1} (¹School of Physics and Astronomy, The University of Manchester)

E5.02 [11:46 - 12:22]

Phonon- and layer-number dependent electron-phonon scatterings in WSe₂ vertical tunnel junctions / JUNG Suyong^{*1} (¹Quantum Technology Institute, KRISS)

E5.03 [12:22 - 12:58]

Transport signature of spin Kosterlitz-Thouless transition in 2D magnetic materials and superconductors / CHUNG Suk Bum^{*1,2,3}, KIM Se Kwon⁴ (¹Department of Physics, University of Seoul, ²Natural Science Research Institute, University of Seoul, ³School of Physics, KIAS, ⁴Department of Physics and Astronomy, University of Missouri)

[E6-co] Condensed Matter Computational Physics I

2020. 07. 14 Tuesday 11:10~12:46

Room: 06

좌장 : 김흥식 강원대학교

Chair : KIM Heung-Sik (Kangwon National University)

E6.01 [11:10 - 11:22]

Thermal Transport Theory for Non-Solid Matter / KANG Joongoo^{*1}, KIM SangHui¹ (¹Department of Emerging Materials Science, DGIST)

E6.02 [11:22 - 11:34]

Fast search for high-ZT SnSe-based alloys from machine learning prediction / LEE Yea-Lee^{*1}, CHANG Hyunju¹, IM Jino¹ (¹Chemical Data-driven Research Center, KRICT, ²Department of Chemical and Biological Engineering, Seoul National University)

E6.03 [11:34 - 11:46]

Extension of multi-space density functional formalism to region-specific optical excitations / YEO Hyeonwoo¹, LEE Juho¹, KIM Yong-Hoon^{*1} (¹School of Electrical Engineering, KAIST)

E6.05 [11:46 - 11:58]

Extending magnetic force theory JX code to plane-wave DFT / YOON Hongkee¹, HAN Myung Joon^{*1} (¹KAIST)

E6.06 [11:58 - 12:10]

First-principles study of doping-dependent magnetic properties of a van der Waals ferromagnet Fe₃GeTe₂ / PARK Se Young^{1,2,10}, KIM Dong Seob³, LIU Yu⁴, HWANG Jinwoong^{5,6}, KIM Younghak⁷, KIM Wondong⁸, KIM Jae-Young⁹, PETROVIC Cedomir⁴, HWANG Choongyu⁶, MO Sung-Kwan⁵, KIM Hyung-jun³, MIN Byoung-Chul³, KOO Hyun Cheol³, CHANG Joonyeon³, JANG Chaun³, CHOI Jun Woo³, RYU Hyejin^{*3} (¹Center for Correlated Electron Systems, CCES (IBS), ²Department of Physics and Astronomy, Seoul National University, ³Center for Spintronics, KIST, ⁴Condensed Matter Physics and Materials Science Department, Brookhaven National Laboratory, ⁵Advanced Light Source, Lawrence Berkeley National Laboratory, ⁶Department of Physics, Pusan National University, ⁷Pohang Accelerator Laboratory, POSTECH, ⁸Quantum Technology Institute, KRISS, ⁹Center for Artificial Low Dimensional Electronic Systems, IBS, ¹⁰Department of Physics, Soongsil University)

E6.07 [12:10 - 12:22]

Anomalous Hall effects without net magnetization / PARK Minkyu², HAN Guihyun¹, AN Su Yeon¹, HONG Soon Cheol^{1,3}, RHIM Sonny^{*1,3} (¹Department of Physics, University of Ulsan, ²Energy Harvest-Storage Research Center, University of Ulsan, ³Research Institute of Basic Sciences, University of Ulsan)

[E7-ap] Focus: Ferroelectricity in doped-HfO₂ thin films II

2020. 07. 14 Tuesday 11:10~12:58

Room: 07

좌장 : 채승철 서울대학교

Chair : CHAE Seung Chul (Seoul National University)

E7.01 [11:10 - 11:34]

Polarization switching dynamics of doped hafnia thin film capacitors / KANG Bo Soo^{*1} (¹Department of Applied Physics, Hanyang University)

E7.02 [11:34 - 11:58]

Revisiting classical nucleation theory to understand the ferroelectric phase formation in doped hafnia thin films / PARK Min Hyuk^{*1}, HWANG Cheol Seong² (¹Department

of Materials Science and Engineering, Pusan National University, ²Department of Materials Science and Engineering & Inter-university Semiconductor Research Center, Seoul National University)

E7.03 [11:58 - 12:22]

Domain switching dynamics in ferroelectric Si-doped HfO₂ capacitors investigated by modified-piezoreponse force microscopy / YANG Sang Mo^{*1} (¹Department of Physics, Sogang University)

[E8-ap] Focus: Emerging Neuromorphic Materials and Devices

2020. 07. 14 Tuesday 11:10~12:22

Room: 08

좌장 : 이철호 고려대학교

Chair : LEE Chul-Ho (Korea University)

E

E8.01 [11:10 - 11:34]

Improvement of nonlinear weight update in three-terminal artificial synapse device / KWAK Joon Young^{*1} (¹KIST)

E8.02 [11:34 - 11:58]

Ultralow switching voltage slope based on two-dimensional materials for integrated memory and neuromorphic applications / YANG Heejun^{*1} (¹Sungkyunkwan University)

E8.03 [11:58 - 12:22]

Memristor synapses for low-power and high-performance neuromorphic computation / WANG Gunuk^{*1} (¹KU-KIST Graduate School of Converging Science and Technology, Korea University)

[E9-st] Granular Systems and Soft Matters

2020. 07. 14 Tuesday 11:10~12:34

Room: 09

좌장 : 백승기 부경대학교

Chair : BAEK Seung Ki (Pukyong National University)

E9.01 [11:10 - 11:22]

Salt effect on the interaction between polyelectrolytes induced by rodlike counterion / CHA Minryeong¹, RO Sunghan², KIM Yong Woon^{*3} (¹자연과학연구소, KAIST, ²Department of Physics, Technion, ³Graduate School of Nanoscience and Technology, KAIST)

E9.02 [11:22 - 11:34]

Statistical ensemble inequivalence for flexible polymers under confinement in

various geometries / S Dutta², P Benetatos^{*1} (¹Department of Physics, Kyungpook National University, ²Center for Soft and Living Matter, IBS)

E9.03 [11:34 - 11:46]

A case study of the effects of ionic groups on the self-assembly: lyotropic chromonic liquid crystals Sunset Yellow FCF / EUN Jonghee¹, CHEON Jiyong¹, KIM Sung-Jo¹, JEONG Joonwoo^{*1} (¹Physics, UNIST)

E9.04 [11:46 - 11:58]

How nematic liquid crystal in and around a sessile droplet breaks its mirror symmetry / JEONG Joonwoo^{*1}, KIM Jungmyung¹ (¹Physics, UNIST)

E9.05 [11:58 - 12:10]

Sessile heavy water droplets absorb quickly light water vapor from air: Kinetics study using neutron imaging and FT-IR spectroscopy / IM Jaekwan¹, JEONG Leekyo¹, CRHA Jan², TRTIK Pavel², JEONG Joonwoo^{*1} (¹Physics, UNIST, ²Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut)

E9.06 [12:10 - 12:22]

Micro-Viscometry of Sperm Sorting Fluids by Quartz Tuning Fork Sensor / KIM Dongwon¹, CHOI Hyoju¹, LEE Manhee^{*1} (¹Department of Physics, Chungbuk National University)

E9.07 [12:22 - 12:34]

Quartz tuning fork-based dynamic measurement of mass and density for a single nano-liter drops / BAE Yeonbi¹, AHN Sangmin², LEE Byeongjun², KIM Dongwon¹, LEE Manhee^{*1}, JHE Wonho^{*2} (¹Department of Physics, Chungbuk National University, ²Department of Physics and Astronomy, Seoul National University)

[E10-te] Physics Education in Diverse Setting

2020. 07. 14 Tuesday 11:10~13:22

Room: 10

좌장 : 정용욱 경상대학교

Chair : CHEONG Yong Wook (Gyeongsang National University)

E10.01 [11:10 - 11:22]

Scratch 블록코딩 기반의시물레이션 구성을 통한 역학교육 / OH Won Kun^{*1} (¹Dept. Physics Education, Chungbuk National University)

E10.02 [11:22 - 11:34]

Comparison of data logging method of block-based physical computing system / CHEONG Yong Wook^{*1} (¹physics education, Gyeongsang National University)

E10.03 [11:34 - 11:46]

컴퓨팅 기반 물리 실험 보고서 작성이 과학고등학교 학생들의 탐구능력 및 태도에 미치는 영향 / LEE Jun Haeng¹, JI Yongrae², CHOI Wooseok³, CHAE Seung Chul¹ (¹Dept. of Physics Education, Seoul National University, ²Dept. of Physics Education, Suncheon National University, ³Dept. of Physics, Hansung Science High School)

E10.04 [11:46 - 11:58]

과학교과서 텍스트의 계량적 분석을 이용한 과학 개념어의 생산적 지식 교육 방안 탐색 / PARK Yune Bae¹, YUN Eunjeong¹ (¹Kyungpook National University)

E10.05 [11:58 - 12:10]

과학영재학생들의 심화탐구 분석을 통한 옴의 법칙 탐구의 문제점과 효과적인 학습 전략 제안 / KIM Minchul¹, HA Sangwoo² (¹Department of Physics, Gyeonggi Science High School, ²Department of Scientific Creativity, Gyeonggi Science High School)

E10.06 [12:10 - 12:22]

뉴턴의 제2법칙 실험을 향한 과학영재들의 도전과 배움 / HA Sangwoo¹, KIM Minchul¹ (¹Department of Scientific Creativity, Gyeonggi Science High School)

E10.07 [12:34 - 12:46]

상대성 이론 수업에서 과학의 본성 및 시공간에 대한 초등학교 6학년 학생의 이해 변화 / PARK Sung Il¹, KANG Namhwa¹ (¹Department of Physics Education, Korea National University of Education)

E10.08 [12:46 - 12:58]

공학계열 전공 전자기학에서의 벡터 연산 이해에 대한 연구 / KIM Mi Ra¹, CHO Young¹ (¹Ulsan College)

E10.09 [12:58 - 13:10]

과학-예술 교육과정 콘텐츠 '다온'의 개발과 적용 - 대구 코로나 바이러스 상황을 중심으로 - Application and development of ScienArt curriculum 'DAON' - Focusing on the context of the Coronavirus in Daegu - / LEE Su A^{1,2}, HONG Daegil³, NA Hyeong Ju⁴, CHOI Won Seok⁵, HWANG Jin Sung⁶, LEE Chan Young⁷ (¹사이언아트 연구소, ²경북대학교 과학교육과, ³국립 대구 과학관, ⁴사남 초등학교, ⁵사동중학교 과학교육과, ⁶함창고등학교 과학교육과, ⁷한국민화 연구소)

E10.10 [13:10 - 13:22]

150년간의 미국 물리교육의 변동사 (The History of U.S. Science Education Focusing on Physics Education Since the 1860s) / JANG Hyewon¹, PAK Sung-Jae² (¹SEAS, Harvard University, ²Physics Education, Seoul National University)

[E11-E12] No Session

[E13-at] Atomic, Molecular and Optical Physics II

2020. 07. 14 Tuesday 11:10~12:34

Room: 13

좌장 : 홍현규 한국표준과학연구원

Chair : HONG Hyun-Gue (KRISS)

E13.01 [11:10 - 11:34]

루비듐 원자 증기셀에서 에너지-시간 얽힘 광자쌍 생성과 유도방출 비트 간섭계를 이용한 얽힘 특성 연구 / JEONG Taek^{1,2}, PARK Jiho², KIM Heonoh², MOON Han Seb² (¹Quantum Physics Technology Directorate, Agency for Defense Development, ²Department of Physics, Pusan National University)

E13.02 [11:34 - 11:46]

Phase Matching Condition of Coherent Extreme Ultraviolet Emission Generated through Frustrated Tunneling Ionization / KIM Kyung Taec^{*1,2}, KIM Yang Hwan¹, YUN Hyeok², HWANG Sung In², NAM Chang Hee^{1,2} (¹Department of Physics and Photon Science, GIST, ²Center for Relativistic Laser Science, Institute for Basic Science)

E13.03 [11:46 - 11:58]

Microwave to optical wave conversion via ferromagnetic material / IHN Yong Sup^{*1}, LEE Su-Yong¹, KIM Dongkyu¹, YIM Sin Hyuk¹, KIM Zaeill¹ (¹Quantum Physics Technology Center, Agency for Defense Development)

E13.04 [11:58 - 12:10]

고전 전자기학을 이용한 Planck's 상수 값의 수학적 유도 / JEONG Jun ho^{*1} (¹Department of Physics and Materials, Dong-A University)

E13.05 [12:10 - 12:22]

Detection of radio-frequency magnetic fields by optically pumped Rb atomic magnetometers / YU Ye Jin¹, LEE Hyun Joon², CHO In-Kui², MOON Han Seb^{*1} (¹Pusan National University, ²Radio & Satellite Research Division, ETRI)

E13.06 [12:22 - 12:34]

미세 중력 환경에서 동작하는 마이크로파 공진기 레이저냉각 원자시계의 성능 분석 / LEE Sangmin³, CHOI Gyeong Won², HEO Myoung-Sun³, KWON Taeg Yong³, HONG Hyun-Gue³, LEE Sang-Bum³, PARK Sang Eon^{*3} (¹KRISS, ²Forensic safety division, National Forensic Service, ³Center for Time and Frequency Metrology, KRISS)

[E14-se] Low Dimensional Nano Materials

2020. 07. 14 Tuesday 11:10~11:58

Room: 14

좌장 : 최수봉 인천대학교

Chair : CHOI Soo Bong (Incheon National University)

E14.01 [11:10 - 11:22]

Colloidal 2D van der Waals Template for Synthesis of Uniform Bimetallic Oxide Nanoparticles / LEE Kang-Nyeoung^{1,2}, PARK Dae Young¹, CHOI Geunchang¹, NGUYEN Duc Anh¹, CHOI Young Chul², JEONG Mun Seok^{*1} (¹Department of Energy Science, Sungkyunkwan University, ²Korea Institute of Carbon Convergence Technology, Korea Institute of Carbon Convergence Technology)

E14.02 [11:22 - 11:34]

Intercalation of Dipolar Molecules in MoS₂/WS₂ Heterobilayer / LEE Noki¹, LEE Jaichan^{*1} (¹School of Advanced Materials Science and Engineering, Sungkyunkwan University)

E14.03 [11:34 - 11:46]

Enhancement of Stability in Two-Dimensional Organometal Halide Perovskites / PARK Seulyoung¹, LEE Jaichan^{*1} (¹School of Advanced Materials Science and Engineering, Sungkyunkwan University)

E14.04 [11:46 - 11:58]

Layer-number dependent optical properties of two-dimensional MoS₂ / KIM Hanul¹, KO Hayoung², KIM Soo Min³, YOON Young-Gui⁴, RHO Heesuk^{*1} (¹Department of Physics, Jeonbuk National University, ²Department of Energy Science, Sungkyunkwan University, ³Department of Chemistry, Sookmyung Women's University, ⁴Department of Physics, Chung-Ang University)

[E15-as] Astrophysics Experiments/Observations I

2020. 07. 14 Tuesday 11:10~12:10

Room: 15

좌장 : 이재원 중원대학교

Chair : LEE Jae-Weon (Jungwon University)

E15.01 [11:10 - 11:22]

Ranking Candidate Signals with Machine Learning in Low-Latency Searches for Gravitational Waves from Compact Binary Mergers / KIM Kyungmin^{*1} (¹Optical Astronomy Division, KASI)

E15.02 [11:22 - 11:34]

The TeV γ -ray Sky as seen by 300 Water Tanks – HAWC Overview and Results / RHO Chang Dong^{*1} (¹Physics, University of Seoul)

E15.03 [11:34 - 11:46]

Cosmic-ray proton and helium spectra from the ISS-CREAM experiment / CHOI Gwangho¹, TAKEISHI Ryuji¹, SEO Eunsuk², PARK IL Hung^{*1} (¹Physics, Sungkyunkwan University, ²Physics, University of Maryland)

E15.04 [11:46 - 11:58]

Preliminary analysis of TAx4 hybrid trigger and events / KIM Sangwoo^{1,2}, JEONG Hyomin^{1,2}, LEE Kwangho^{1,2}, KIM Minhyo^{1,2}, PARK IL Hung^{*1,2}, YANG Jongman², CHEON ByungGu³, KIM Hangbae³, SAGAWA Hiroyuki⁴, KIDO Eiji⁴ (¹Physics, Sungkyunkwan University, ²성균관대학교 한일 우주선 공동연구센터 물리학과, ³한양대학교 물리학과, ⁴동경대 일본 우주선 연구소 물리학과)

E15.05 [11:58 - 12:10]

Preliminary analysis on energies and arrival directions of UHECRs detected by TAx4 Surface Detectors / JEONG Hyomin^{1,2}, LEE Kwangho^{1,2}, KIM Sangwoo^{1,2}, KIM Minhyo^{1,2}, KIDO Eiji⁴, PARK IL Hung^{*1,2}, YANG Jongman², CHEON Byeong Gu³, SAGAWA Hiroyuki⁴ (¹Physics, Sungkyunkwan University, ²Cooperation center for Cosmic Ray Research, Sungkyunkwan University, ³Physics, Hanyang University, ⁴Institute for Cosmic Ray Research, University of Tokyo)

[E16-bp] Focus: Cell is a test-tube-Cell Physics

2020. 07. 14 Tuesday 11:10~12:46

Room: 16

좌장 : 이남기 서울대학교

Chair : LEE Nam Ki (Seoul National University)

E16.01 [11:10 - 11:34]

Direct communications of distant cells / LEE Jong-Bong^{*1,2} (¹Physics, POSTECH, ²School of Interdisciplinary Bioscience and Bioengineering, POSTECH)

E16.02 [11:34 - 11:58]

Imaging activity-dependent dynamics of endogenous Arc mRNA in neurons in vivo / PARK Hyeyoon^{*1} (¹Department of Physics and Astronomy, Seoul National University)

E16.03 [11:58 - 12:22]

Bleaching-resistant Single-molecule Localization Microscopy / SHIM Sang Hee^{*1} (¹Department of Chemistry, Korea University)

E16.04 [12:22 - 12:46]

Label-free iSCAT microscopy to study cellular structure and dynamics / PARK J.-S.¹, LEE I.-B.¹, MOON H.-M.¹, ZAMBOCHOVA K.^{1,2}, KIM K.-H.^{1,3}, JOO J.-H.^{1,4}, RYU J.-S.⁵, KONG S.-Y.⁶, HONG S.-C.^{*1,3}, CHO M.^{*1,4} (1Center for Molecular Spectroscopy and Dynamics, Institute for Basic Science, 2Department of Natural Sciences, Faculty of Biomedical Engineering, Czech Technical University in Prague, Kladno, Czech Republic, 3Department of Physics, Korea University, 4Department of Chemistry, Korea University, 5Center for Breast Cancer, National Cancer Center, 6Division of Translational Science, National Cancer Center)

Session F

2020 July 14(Tue) 15:20-17:08

[F1-pa] Accelerator VI

2020. 07. 14 Tuesday 15:20~16:44

Room: 01

좌장 : 최수용 고려대학교

Chair : CHOI Suyong (Korea University)

F1.01 [15:20 - 15:32]

Status report of R&Ds on trigger RPCs for CMS and SHiP experiments / LEE Kyong Sei^{*1}, KANG Minho¹, JO Youngmin¹, GO Jae-Woo², LEE Kang Young², SON Jong Youn², YOUN Chunsil², WOO Jong-Kwan³, KIM Yeong Gyun⁴, CHOI Ki-Young⁵ (¹Korea University, ²Dept. of Physics Education and RINS, Gyeongsang National University, ³Dept. of Physics, Jeju National University, ⁴Dept. of Science Education, Gwangju National University of Education, ⁵Dept. of Physics, Sungkyunkwan University)

F1.02 [15:32 - 15:44]

Test beam results from LGAD sensor on endcap timing layer for CMS phase-2 upgrade / MOON Chang-Seong^{*1}, LEE Hakseong¹ (¹Department of Physics, Kyungpook National University)

F1.03 [15:44 - 15:56]

Testing of ETROC performance at the Fermilab Beam Test Facility / MOON Chang-Seong^{*1}, LEE Jongho¹, DOGRA Sunil Manohar¹ (¹Department of Physics, Kyungpook National University)

F1.04 [15:56 - 16:08]

Neutron Detection using a Gadolinium-Cathode GEM Detector / PARK Inkyu^{*1}, SONG DongHyun¹, LEE Jason Sang Hun^{*1} (¹University of Seoul)

F1.05 [16:08 - 16:20]

Status of Electro-magnetic Calorimeter Trigger system of the Belle II experiment / KIM Sung hyun^{*1}, KIM Cheol hun², CHO Han Eol², CHEON Byunggu² (¹Physics and Astronomy, Seoul National University, ²Department of Physics, Hanyang University)

F1.06 [16:20 - 16:32]

Current Status of the SHiP Experiment / YOON Chun Sil^{*1}, KO Jae-Woo², LEE Kang Young², PARK Byung Do², SOHN Jong Yoon², LEE Kyong Sei³, KIM Yeong Gyun⁴, CHOI Ki-Young⁵, WOO Jong-Kwan⁶ (¹Research Institute of Natural Science, Gyeongsang

National University, ²Physics Education Department & RINS, Gyeongsang National University, ³KODEL, Korea University, ⁴Department of Science Education, Gwangju National University of Education, ⁵Department of Physics, Sungkyunkwan University, ⁶Department of Physics, Jeju National University)

F1.07 [16:32 - 16:44]

Plastic scintillator with embedded WLS fibers and MPPC readout for the KOTO experiment / CHOI Jae Min¹, LIM Gei Youb², AHN Jung Keun¹ (¹Department of Physics, Korea University, ²Institute of Particle and Nuclear Study(IPNS), High Energy Accelerator Research Organization, KEK)

[F2-pa] Accelerator VII

2020. 07. 14 Tuesday 15:20~17:08

Room: 02

좌장 : 이현수 기초과학연구원

Chair : LEE Hyun Su (IBS)

F

F2.01 [15:20 - 15:32]

Status of COSINE-100 experiment / PRIHTIADI Hafizh¹ (¹Physics, Center for Underground Physics, IBS)

F2.02 [15:32 - 15:44]

COSINE-100 muon modulation analysis results / PRIHTIADI Hafizh¹ (¹Physics, Center for Underground Physics, IBS)

F2.03 [15:44 - 15:56]

Study of Low Energy Region in the COSINE-100 / KO Young Ju¹ (¹IBS)

F2.04 [15:56 - 16:08]

Development of low-background NaI(Tl) crystal for COSINE-200 experiment / PARK ByungJu^{1,2} (¹Center for Underground Physics, IBS, ²IBS, UST)

F2.05 [16:08 - 16:20]

Measurement of a NaI(Tl) crystal characteristics using a SiPM at low temperatures / KIM Kyungwon¹, HA Chang Hyon¹, JEON JainA¹, LEE Hyeyoung¹, LEE Hyun Su¹, LEE Moo Hyun¹ (¹Center for Underground Physics, IBS)

F2.06 [16:20 - 16:32]

Setup for low temperature measurement of NaI(Tl) crystal using silicon photomultiplier / LEE Hye Young¹ (¹IBS)

F2.07 [16:32 - 16:44]

SiTrInEO: Silicon Tracker with International Education Objective / MOON Chang-Seong^{*1}, KIM Daekwon¹, SUNIL Dogra M.¹, LEE Jongho¹, SON Jeongmin¹, BAUDOT Jerome², CHABERT Eric² (¹Department of Physics, Kyungpook National University, ²CNRS, Institut Pluridisciplinaire Hubert Curien)

F2.08 [16:44 - 16:56]

Development of low threshold detectors using metallic magnetic calorimeters for rare event experiments / JEON Jin A^{*1} (¹Center for Underground Physics, IBS)

F2.09 [16:56 - 17:08]

Graphene-based Josephson Junction Detector for keV-Range Super-Light Dark Matter / KIM Doojin¹, PARK Jong-Chul², FONG Kin Chung³, LEE Gil-Ho⁴ (¹Department of Physics and Astronomy, Texas A&M University, ²Department of Physics, Chungnam National University, ³Quantum Information Processing Group, Raytheon BBN Technologies, ⁴Department of Physics, Pohang University of Science and Technology)

[F3-nu] Nuclear Experiment

2020. 07. 14 Tuesday 15:20~17:20

Room: 03

좌장 : 채경육 성균관대학교

Chair : CHAE Kyung Yuk (Sungkyunkwan University)

F3.01 [15:20 - 15:32]

Development of Water Cherenkov Detector for J-PARC H-dibaryon Search Experiment / CHOI Sung Wook¹, AHN Jung Keun^{*1} (¹Department of Physics, Korea University)

F3.02 [15:32 - 15:44]

Development of a Beam Hodoscope with Fast Scintillators and MPPC Readout for J-PARC E42 / AHN Jung Keun^{*1,2}, KANG Byungmin^{1,2} (¹Department of Physics, Korea University, ²E42 Collaboration, J-PARC)

F3.03 [15:44 - 15:56]

Development of HVCM program for JSNS2 experiment / GWAK Piljun^{*1}, MOON Doonho¹, JANG Mincheol¹, JANG Hanil² (¹Department of Physics, Chonnam National University, ²Fire Administration, Seoyeong University)

F3.04 [16:08 - 16:20]

LAMPs 중성자 검출기의 PMT신호 파형해석을 통한 multi-hit event의 식별성능 평가 / LEE Jongwon^{*1}, HONG Byungsik^{1,2}, AHN JungKeun^{1,2} (¹CENuM, Korea University, ²Department of Physics, Korea University)

F3.05 [16:20 - 16:32]

In-gas-cell laser spectroscopy of 194,196Os / CHOI Hyunsuk^{*1} (¹Department of Physics & Astronomy, Seoul National University)

F3.06 [16:32 - 16:44]

HPGe measurements of detector material samples at Yangyang underground laboratory / KIM Yeongduk^{*1,2}, LEE Eunkyung¹, HAHN Insik Kevin⁴, KANG Woongu¹, KIM Gowoon¹, LEE Moo Hyun^{1,2}, LEONARD Douglas S.¹, PARK Su-yeon³, KAZALOV Vladimir⁵ (¹IBS Center for Underground Physics, IBS, ²Department of Physics, University of Science and Technology, ³Department of Physics, Ewha Womans University, ⁴IBS Center for Exotic Nuclear Studies, IBS, ⁵Baksan Neutrino Observatory, INR)

F3.07 [16:44 - 16:56]

The development of LAMPS starting counter / LEE Hyungjun¹, KWEON Min Jung^{*1}, DO JaeHyeon¹ (¹Inha University)

F

F3.08 [16:56 - 17:08]

Neutron Application for the Quantitative Analysis of Microelements by Nuclear Capture Reaction / LEE Sang Hwa^{*1}, PARK Byung-gun¹, JIN Young ku², SEO Hyun woo², KIM Dohyun¹, KIM Dong min², SEO Dong-jin¹, OH Wan Seok¹ (¹Neutron and Radioisotope Application Research Division, Korea Atomic Energy Research Institute, ²Department of Materials Science Engineering, Hongik University, Sejong)

F3.09 [17:08 - 17:20]

실리콘 검출기 시뮬레이션 / JEONGSU Bok¹, KWEON Min Jung^{*1} (¹Inha University)

[F4-co] Strongly Correlated/Dielectric/Functional Oxides III

2020. 07. 14 Tuesday 15:20~16:56

Room: 04

좌장 : 문순재 한양대학교

Chair : MOON Soonjae (Hanyang University)

F4.01 [15:20-15:32]

Basal-plane anisotropy in van der Waal NiP₃ / NAUMAN Muhammad¹, SON Suhan², PARK Je-Geun², KANG Woun³, JO Youn Jung^{*1} (¹Physics, Kyungpook National University, ²Physics department, Seoul National University, ³Physics department, Ewha Woman University)

F4.02 [15:32-15:44]

Strain-engineering of the magnetic multipole moments and anomalous Hall effect in pyrochlore iridate thin films / KIM Woo Jin^{1,2}, OH Taekoo^{*1,2,3}, SONG Jeongkeun^{1,2}, KO Eun Kyo^{1,2}, LI Yangyang^{1,2}, MUN Junsik^{1,2}, KIM Bongju^{1,2}, SON Jaeseok^{1,2}, YANG Zhuo⁵,

KOHAMA Yoshimitsu⁵, KIM Miyoung⁴, YANG Bohm-Jung^{1,2,3}, NOH Tae Won^{1,2} (¹Center for Correlated Electron Systems, IBS, ²Department of Physics and Astronomy, Seoul National University, ³Center for Theoretical Physics, Seoul National University, ⁴Department of Materials Science and Engineering and Research Institute of Advanced Materials, Seoul National University, ⁵Institute for Solid State Physics, The University of Tokyo)

F4.03 [15:44-15:56]

Controlling anomalous and topological Hall effects in SrRuO₃ ultra-thin film by tuning electric field on the surface / KIM Donghan^{1,2}, SOHN Byungmin^{1,2}, KIM Changyoung^{*1,2} (¹Department of Physics and Astronomy, Seoul National University, ²CCES (IBS), CCES (IBS))

F4.04 [15:56-16:08]

Sign-tunable anomalous Hall effect induced by symmetry-protected nodal structures in ferromagnetic perovskite oxide thin films / SOHN Byungmin¹, LEE Eunwoo¹, YANG Bohm-Jung¹, KIM Changyoung^{*1} (¹Department of Physics and Astronomy, Seoul National University)

F4.05 [16:08-16:20]

Visualizing orbital content of electronic bands in anisotropic 2D semiconducting ReSe₂ / CHOI Byoung¹, ULSTRUP Søren^{2,3}, GUNASEKERA Surani M.⁴, KIM Jiho⁵, LIM Soo Yeon⁶, MORESCHINI Luca³, OH Ji Seop^{3,7,8}, CHUN Seung-Hyun⁹, JOZWIAK Chris³, BOSTWICK Aaron³, ROTENBERG Eli³, CHEONG Hyeonsik⁶, LYO Inhwan⁵, KRUCZYNSKI Marcin Mucha⁴, CHANG Young Jun^{*1} (¹Department of Physics, University of Seoul, ²Department of Physics and Astronomy, Aarhus University, Denmark, ³Advanced Light Source (ALS), E. O. Lawrence Berkeley National Laboratory, Berkeley, USA, ⁴Centre for Nanoscience and Nanotechnology and Department of Physics, University of Bath, United Kingdom, ⁵Department of Physics, Yonsei University, ⁶Department of Physics, Sogang University, ⁷Center for Correlated Electron Systems, Institute for Basic Science (IBS), ⁸Department of Physics and Astronomy, Seoul National University, ⁹Department of Physics, Sejong University)

[F5-co] Nano and mesoscopic physics I

2020. 07. 14 Tuesday 15:20~16:32

Room: 05

좌장 : 명노준 조선대학교

Chair : MYOUNG Nojoon (Chosun University)

F5.01 [15:20 - 15:32]

Tunable quantum interference effect on magnetoconductivity in few-layer black phosphorus / KIM Sunghoon¹, MIN Hongki^{*1} (¹Department of Physics and Astronomy, Seoul National University)

F5.02 [15:32 - 15:44]

Detecting Fractional Statistics on Integer Quantum Hall Edges / LEE June-Young M.¹, HAN Cheolhee¹, SIM Heung-Sun^{*1} (¹Department of Physics, KAIST)

F5.03 [15:44 - 15:56]

Universal scaling of multi-channel Kondo entanglement at finite temperature: a numerical renormalization group result / SHIM Jeongmin¹, KIM Donghoon¹, SIM Heung-Sun^{*1} (¹Department of Physics, KAIST)

F5.04 [15:56 - 16:08]

Quasi-One-Dimensional Higher-Order Topological Insulators / YOON Chiho^{1,2}, LIU Cheng-Cheng^{1,3}, MIN Hongki^{*2}, ZHANG Fan¹ (¹Department of Physics, University of Texas at Dallas, ²Department of Physics and Astronomy, Seoul National University, ³School of Physics, Beijing Institute of Technology)

F5.05 [16:08 - 16:20]

Numerical Study Of Transverse Magnetic Focusing Using Kwant / LEE Seokyeong¹, PARK Dongsung Thomas¹, KIM Dongkun², CHUNG Yunchul³, CHOI Hyoung Soon^{*1}, CHOI Hyung Kook^{*2} (¹KAIST, ²Department of Physics, Jeonbuk National University, ³Department of Physics, Pusan National University)

F5.06 [16:20 - 16:32]

Ultrafast Energy Relaxation of 2D Hot Electrons generated from a Quantum Dot / PARK Dongsung T.¹, KIM Dongkun², KIM Uhjin², JUNG Hwanchul³, CHOI Juho¹, HAN Cheolhee¹, CHUNG Yunchul³, SIM H.-S.¹, CHOI Hyoung Soon^{*1}, CHOI Hyung Kook^{*2} (¹Physics, KAIST, ²Physics, Jeonbuk National University, ³Physics, Pusan National University)

F

[F6-co] Condensed Matter Computational Physics II

2020. 07. 14 Tuesday 15:20~17:08

Room: 06

좌장 : 한명준 한국과학기술원

Chair : HAN Myung Joon (KAIST)

F6.01 [15:20 - 15:32]

Stabilization of grain boundaries in CdTe by mirror symmetry breaking / PARK Ji-Sang^{*1} (¹Physics, Kyungpook National University)

F6.02 [15:32 - 15:44]

High Thermoelectric Performance in Hexagonal 2D PdTe₂ Monolayer at Room Temperature / MARFOUA Brahim¹, HONG Ji Sang^{*1} (¹Physics, Pukyong National University)

F6.03 [15:44 - 15:56]

Microscopic origin of the large shift current in the β -MAPbI₃ and α -FAPbI₃ / KIM Bumseop¹, KIM Jeongwoo², PARK Noejung^{*1} (¹Department of Physics, UNIST, ²Department of Physics, Incheon National University)

F6.04 [15:56 - 16:08]

Piezoelectric modification of groupIV-monochalcogenide materials / KIM HyeongRyul¹, KWON Young-Kyun^{*1} (¹Department of Physics, Kyung Hee University)

F6.05 [16:08 - 16:20]

First-principles study of the hydrogen-bond network in water at the biased electrode interface / LEE Juho¹, KIM Yong-Hoon^{*1} (¹School of Electrical Engineering, KAIST)

F6.06 [16:20 - 16:32]

Defect mediated electron transport in MoS₂ / GU Minseon^{1,2}, HAN Moonsup^{*1}, KIM Seungchul² (¹Department of Physics, University of Seoul, ²Computational Science Research Center, Korea Institute of Science and Technology)

F6.07 [16:32 - 16:44]

First-Principle Study on the Oxygen Related Color Centers in Hexagonal Boron Nitride / PARK Sunho¹, KWON Young-Kyun^{*1}, NA Yونسung², LEE Gwan-Hyoung² (¹Department of Physics, Kyung Hee University, ²Department of Materials Science and Engineering, Seoul National University)

F6.08 [16:44 - 16:56]

Phonon softening in the room-temperature organic-Inorganic hybrid Perovskites / LEE Seungjun¹, KWON Young-Kyun^{*1} (¹Department of Physics, Kyung Hee University)

F6.09 [16:56 - 17:08]

First-principles study of the electronic properties of cellulose nanocrystal surfaces / KIM Hyunyoung¹, LEE Juhyoung¹, KANG Joongoo^{*1} (¹Department of Emerging Materials Science, DGIST)

[F7-ap] Focus: Applications of Quantum Information Devices

2020. 07. 14 Tuesday 15:20-17:08

Room: 07

좌장 : 도용주 광주과학기술원

Chair : DOH Yong-Joo (GIST)

F7.01 [15:20 - 15:56]

High fidelity encoded gate operations for composite superconducting qubit / SHIM Yun-Pil^{*1} (¹University of Maryland , USA)

F7.02 [15:56 - 16:32]

Charge state manipulation of color centers in semiconductors for quantum applications / LEE Sang-Yun^{*1} (¹Department of Physics and Photon Science, Gwangju Institute of Science and Technology)

F7.03 [16:32 - 17:08]

Fast adoptive quantum measurements in semiconductor quantum dots / KIM Dohun^{*1} (¹Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University)

[F8-ap] Nanomaterials II

2020. 07. 14 Tuesday 15:20~16:56

Room: 08

좌장 : 이승우 고려대학교

Chair : LEE Seungwoo (Korea University)

F

F8.01 [15:20 - 15:32]

Nanoporous gold-palladium films for high catalytic activity of the electro-oxidation of ethanol / LEE Keon-U^{1,2}, BYUN Ji Young¹, SHIN Hyung-Joon², KIM Sang Hoon^{*1} (¹Materials Architecturing Research Center, KIST, ²Dept. Mat. Sci. Eng., UNIST)

F8.02 [15:32 - 15:44]

Effect of morphologies on optical characterization of micro-nanostructured V_2O_5 / LE Top Khac¹, KIM Hyunki¹, KIM Sok Won^{*1} (¹University of Ulsan)

F8.03 [15:44 - 15:56]

Thermoelectric properties of W doped V_2O_5 pellets formed by pressed nanopowder / KIM Hyun ki¹, LE Top Khac¹, KIM Sok Won^{*1} (¹University of Ulsan)

F8.04 [15:56 - 16:08]

Nanofabrication and Sensor by using a nanopipette/nanorod-combined quartz tuning fork atomic force microscope / JHE Won Ho^{*1}, AN Sangmin¹ (¹Seoul National University)

F8.05 [16:08 - 16:20]

Gas sensors based on graphene/carbon nanotube barristor / YOU Young Gyu¹, PARK Do-Hyun¹, LEE Jun-Ho¹, CHOI Inchul¹, JO Sung-II², JEONG Goo-Hwan³, CHUNG Hyun-Jong¹, JHANG Sung Ho^{*1} (¹Konkuk University, ²Department of Advanced Materials Engineering, Kangwon National University, ³Department of Materials Science & Engineering, Kangwon National University)

F8.06 [16:20 - 16:32]

Metal Oxide Transfer Film of UV-Ozone Treated Double Structure TiO_2/SnO_2 and SnO_2

TiO₂ Based Planar Perovskite Solar Cell / KIM Jihyun¹, JUNG Hye Ri¹, KIM Yeon Soo¹, JO William¹ (¹Department of Physics, Ewha Womans University)

F8.07 [16:32 - 16:44]

Room Temperature Magnetoresistance of the Graphene-based Spintronic Devices / DO Thi Nga^{1,2}, LEE Sehee³, HWANG Chanyoung³, KIM Tae Hee^{*1,2} (¹IBS Center for Quantum Nanoscience, Ewha Womans University, ²Department of Physics, Ewha Womans University, ³Korea Research Institute of Standards and Science, Daejeon, KRISS)

F8.08 [16:44 - 16:56]

Bias-controlled multifunctional transport properties of BP/InSe van der Waals heterostructures / CHO Sang-Hoo¹, LEE Kayoung^{*1} (¹Materials Science and Engineering, GIST)

[F9-st] Chaos and Nonlinear Dynamics

2020. 07. 14 Tuesday 15:20~16:32

Room: 09

좌장 : 이상훈 경남과학기술대학교

Chair : LEE Sang Hoon (Gyeongnam National University Of Science and Technology)

F9.01 [15:20 - 15:32]

Localization of Bogoliubov Excitations in Disordered Gross-Pitaevskii Chains at T=0 / KATI Yagmur^{*1,4}, FISTUL Mikhail V.^{1,3}, CHERNY Alexander Yu.², FLACH Sergej¹ (¹Center for Theoretical Physics of Complex Systems, IBS, ²Bogoliubov Laboratory of Theoretical Physics, Russia, JINR, ³Theoretische Physik III, Ruhr-Universität Bochum, Germany, ⁴Basic Science Program, Korea University of Science and Technology (UST))

F9.02 [15:32 - 15:44]

New type of oscillation death in coupled counter-rotating identical nonlinear oscillators / RYU Jung Wan^{*1}, SON Woo-Sik², HWANG Dong-Uk³ (¹Center for Theoretical Physics of Complex Systems, IBS, ²Division of Medical Mathematics, NIMS, ³Division of Basic Researches for Industrial Mathematics, NIMS)

F9.03 [15:44 - 15:56]

미국의 리츠, 채권 그리고 주식 간의 정보흐름 실증분석 / AHN Kwangwon^{*3}, RYU In-Ug¹, JANG Hanwool² (¹Future Strategy, Yonsei University, ²Investment Information Engineering, Yonsei, ³Future Strategy, KAIST)

F9.04 [15:56 - 16:08]

전환사채, 채권, 주식 상호간 정보 흐름에 관한 연구 / JO Kihwan¹, JEONG Jongwook^{*2}, AHN Kwangwon³ (¹Industrial Engineering, Yonsei University, ²Value Growth Group, SK telecom, ³Future Strategy, Yonsei University)

F9.05 [16:08 - 16:20]

암호화폐와 암호화폐 스플릿 간 정보흐름 실증분석 / YI Eojin¹, CHO Yerim², AHN Kwangwon^{*2}
(¹Moon Soul Graduate School of Future Strategy, KAIST, ²Industrial Engineering, Yonsei University, ³Future Strategy, Yonsei University)

[F10-te] Focus: Present of physics education in secondary school

2020. 07. 14 Tuesday 15:20~16:32

Room: 10

좌장 : 정용욱 경상대학교

Chair : CHEONG Yong Wook (Gyeongsang National University)

F10.01 [15:20 - 15:44]

2015 개정교육과정에 따른 통합과학 및 과학탐구실험 운영 현황 / BYUN Teajin^{*1} (Division of Teaching and Learning, KICE)

F

F10.02 [15:44 - 16:08]

교사교육자의 주체적 실행 개선을 위한 '셀프 스터디' - 물리교사교육에 주는 시사점을 중심으로 / 최재혁¹, 김희경², 정용재³, 조광희⁴ (¹전남대학교 물리교육과, ²강원대학교 과학교육학부, ³공주교육대학교 과학교육과, ⁴조선대학교 물리교육과)

F10.03 [16:08 - 16:32]

과학교육종합계획(2020-2024)에 따른 물리교육의 현안과 과제 / HONG Oksu^{*1} (Office of Science & Math Education Development, KOFAC)

[F11-F13] No Session

[F14-se] Semiconductor Growth, Transport and Optical Properties

2020. 07. 14 Tuesday 15:20~16:32

Room: 14

좌장 : 변지수 경북대학교

Chair : BYEON Clare Chisu (Kyungpook National University)

F14.01 [15:20 - 15:32]

Correlative Investigation of Degradation of Organic-Inorganic Hybrid Perovskite Films Using Infrared Nanoscopy / YU Hyang Mi¹, OH Hye Min¹, PARK Dae Young¹, JEONG Mun Seok^{*1} (¹Department of Energy Science, Sungkyunkwan University)

F14.02 [15:32 - 15:44]

Inorganic 2-D Transition Metal Dichalcogenides for Charge Transport Layers of Perovskite Solar Cells / KIM Bora^{1,2}, YANG Jung Yup³, JEONG Mun Seok^{*1} (¹Department of Energy Science, Sungkyunkwan University, ²Center for Integrated Nanostructure Physics (CINAP), Institute for Basic Science (IBS), Sungkyunkwan University, ³Department of Physics, Kunsan National University)

F14.03 [15:44 - 15:56]

Optical absorption and anomalous photoconductivity in Methylammonium lead halide single crystals / BYUN Hye Ryung¹, PARK Dae Young², JANG Joon Ik^{*1}, JEONG Mun Seok^{*2} (¹Department of Physics, Sogang University, ²Department of Energy Science, Sungkyunkwan University)

F14.04 [15:56 - 16:08]

Origin of dual peak nature and Rashba splitting in halide perovskite single crystals / JANG Joon Ik^{*1}, RYU Hongsun¹, MCCALL Kyle², PARK Dae Young³, KANATZIDIS Mercuri G.², JEONG Mun Seok³ (¹Physics, Sogang University, ²Chemistry, Northwestern University, ³Energy science, Sungkyunkwan University)

F14.05 [16:20 - 16:32]

Formation of quantum vortex in non-equilibrium superfluid / PARK Min¹, CHOI Daegwang¹, OH Byoung Yong¹, KWON Min-Sik¹, KANG Hang Kyu², KANG Sooseok², SONG Jin Dong², CHO Yong-Hoon¹, CHOI Hyoung Soon^{*1} (¹KAIST, ²Center for Opto-Electronic Convergence Systems, KIST)

[F15-as] Focus: Wormholes and Gravitation

2020. 07. 14 Tuesday 15:20-17:44

Room: 15

좌장 : 김정리 이화여자대학교

Chair : KIM Chunglee (Ewha Womans University)

F15.01 [15:20 - 15:44]

Temperatures in closed and wormhole spacetimes / KIM Hyeong-Chan^{*1} (¹School of Liberal Arts and Sciences, Korea National University of Transportation)

F15.02 [15:44 - 16:08]

Wormholes and quantum gravity: can a wormhole be created from nothing? / YEOM Dong-han^{*1} (¹Physics Education, Pusan National University)

F15.03 [16:08 - 16:32]

Wormholes in Einstein-Born-Infeld gravity / KIM Jin Young^{*1} (¹Department of Physics, Kunsan National University)

F15.04 [16:32 - 16:56]

The Gravitational Perturbation of a Morris-Thorne Wormhole and the Newman-Penrose Formalism / KIM Sung Won^{*1}, KANG YuRi² (¹Science Education, Ewha Womans University, ²Research Institute of Basic Sciences, Incheon National University)

F15.05 [16:56 - 17:44]

Wormhole Spacetime in Relativity / KIM Sung Won^{*1} (¹Science Education, Ewha Womans University)

[F16-bp] Focus: Emerging Techniques in Biological Physics

2020. 07. 14 Tuesday 15:20~16:56

Room: 16

좌장 : 김승중 한국과학기술원

Chair : KIM Seung Joong (KAIST)

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F16.01 [15:20 - 15:44]

Holotomography Techniques for Non-Invasive Label-Free 3D Imaging of Live Cells and Materials / LEE Sumin^{*1} (¹Tomocube Inc., Daejeon, Republic of Korea)

F16.02 [15:44 - 16:08]

Time-resolved pH-induced protein dynamics studies of influenza viral hemagglutinin / LEE Dan Bi¹, KIM Eun Jeong¹, LEE Ji-Hye¹, KIM Kyung Hyun^{*1} (¹Department of Biotechnology & Bioinformatics, Korea University)

F16.03 [16:08 - 16:32]

Advanced Molecular Dynamics Simulations That Rationalize Small Molecule – Protein Interactions / PARK Jiyong^{*1} (¹Center for Catalytic Hydrocarbon Functionalizations, IBS)

F16.04 [16:32 - 16:56]

Noble parylene-based microfluidic systems and Chip calorimeters / LEE Wonhee^{*1,2} (¹Department of Physics, KAIST, ²Graduate School of Nanoscience and Technology, KAIST)

Session G

2020 July 15(Wed) 09:00-10:48

[G1-pa] Non-accelerator

2020. 07. 15 Wednesday 09:00~10:48

Room: 01

좌장 : 서선희 기초과학연구원

Chair : SEO Seon Hee (IBS)

G1.01 [09:00 - 09:12]

Updated θ_{13} measurement using data with neutron captures on hydrogen at RENO / KIM Sang yong¹, KIM Wooyoung², CHOI Juneho³, JANG Hanil⁴, KWON Eunhyang¹, KIM Soo-Bong¹, SEO Hyunkwan¹, LEE Dongha¹, LEE Hyungi¹, YU Intae⁵, JEON Sanghoon⁵, KIM Jonggun⁵, JUNG Daeun⁵, GWAK Piljun⁶, KIM Jaeyool⁶, SHIN Changdong⁶, JOO Kyungkwang⁶, MOON Dongho⁶, JOHAAIB Atif⁶, LIM Intaek⁶, YOO Jonghee⁸, YANG Byongssoo⁸, JU Kiwon⁸, YU Minsang⁸, YOON Seok-Gyeong⁸, JANG Jeeseung⁷, PAC Myoung Youl² (¹Department of Physics & Astronomy, Seoul National University, ²Department of Physics, Kyungpook National University, ³Department of Radiology, Dongshin University, ⁴Department of Fire Safety, Seoyeong University, ⁵Department of Physics, Sungkyunkwan University, ⁶Department of Physics, Chonnam National University, ⁷GIST College, GIST, ⁸Department of Physics, KAIST)

G1.02 [09:12 - 09:24]

Development of sensitive radon detector for KNO / YANG Jeongyeol¹, KIM Soo-Bong² (¹physics and astronomy, Seoul National University, ²Department of Physics, Sungkyunkwan University)

G1.03 [09:24 - 09:36]

Neutron detection of the System of on-Axis Neutrino Detection in the DUNE near detector / GWON Sunwoo¹ (¹Physics, Chung-Ang University)

G1.04 [09:36 - 09:48]

Search for Sterile Neutrinos at RENO / SEO Jiwoong¹, 유인태¹, 전상훈¹, 김종건¹, 정다운¹, 김수봉², 서현관², 권은향², 이동하², 김상용², 이현기², 김재률³, 임인택³, 주경광³, 문동호³, 신창동³, 곽필준³, ATIF Zohaib³, 서준후³, 유종희⁴, 양병수⁴, 주기원⁴, 윤석경⁴, 유민상⁴, 김우영⁵, 장한일⁶, 박명렬⁷, 최준호⁷, 장지승⁸ (¹Department of Physics, Sungkyunkwan University, ²Department of Physics, Seoul National University, ³Department of Physics, Chonnam National University, ⁴Department of Physics, KAIST, ⁵Department of Physics, Kyungpook National University, ⁶Department of Physics, Seoyeong University, ⁷Department of Physics, Dongshin University, ⁸Department of Physics, GIST)

G1.05 [09:48 - 10:00]

Detector Stability in NEOS-phase2 / KIM JongGeon^{*1} (¹Physics, Sungkyunkwan University)

G1.06 [10:00 - 10:12]

Observation of cosmic muon variation at RENO / LEE Dong Ha^{*1}, LEE Hyungi¹, KIM Wooyoung², PAC Myounglyul³, CHOI Junho³, JANG Haniil⁴, KWON Eunhyang¹, KIM Sangyong¹, KIM Soobong¹, SEO Hyunkwan¹, KIM Jonggeon⁵, SEO Jiwoong⁵, YU Intae⁵, JEON Sanghoon⁵, JEONG Daeun⁵, GWAK Piljun⁶, KIM Jaeyool⁶, MOON Dongho⁶, SEO Junhoo⁶, SIN Changdong⁶, LIM Intaek⁶, JOO Kyungkwang⁶, ATIF Zohaib⁶, JANG Jeeseung⁷, YOO Jonghee⁸, YANG Byeongsu⁸, JU Kiwon⁸, YOO Minsang⁸, YUN Seokkyung⁸ (¹Seoul National University, ²Department of Physics, Kyungpook National University, ³Department of Physics, Dongshin University, ⁴Department of Physics, Seoyeong University, ⁵Department of Physics, Sungkyunkwan University, ⁶Department of Physics, Chonnam National University, ⁷Department of Physics, GIST, ⁸Department of Physics, KAIST)

G1.07 [10:12 - 10:24]

Updated results on reactor antineutrino oscillation amplitude and frequency for 2900 days at RENO / LEE Dong Ha^{*1}, KIM Wooyoung², PAC Myounglyul³, CHOI Junho³, JANG Haniil⁴, KIM Eunhyang¹, KIM Sangyong¹, KIM Soobong¹, SEO Hyunkwan¹, LEE Hyungee¹, KIM Jonggeon⁵, SEO Jiwoong⁵, YU Intae⁵, JEON Sanghoon⁵, JEONG Daeun⁵, GWAK Piljun⁶, KIM Jaeyool⁶, MOON Dongho⁶, SEO Junhoo⁶, SIN Changdong⁶, IM Intaek⁶, JOO Kyungkwang⁶, ATIF Zohaib⁶, JANG Jeeseung⁷, YU Jonghee⁸, YANG Byeongsu⁸, JU Kiwon⁸, YU Minsang⁸, YUN Seokkyung⁸ (¹Seoul National University, ²Department of Physics, Kyungpook National University, ³Department of Physics, Dongshin University, ⁴Department of Physics, Seoyeong University, ⁵Department of Physics, Sungkyunkwan University, ⁶Department of Physics, Chonnam National University, ⁷Department of Physics, GIST, ⁸Department of Physics, KAIST)

G1.08 [10:24 - 10:36]

Understanding of NaI(Tl) detector performance for the NEON experiment / CHOI Jaejin^{*1} (¹Department of Physics and Astronomy, Seoul National University)

G1.09 [10:36 - 10:48]

Status of NEOS Phase-II / KIM Jinyu^{*1} (¹Department of Physics, Sejong University)

[G2] No Session

[G3-nu] Nuclear Experiment & Astrophysics

2020. 07. 15 Wednesday 09:00~10:48

Room: 03

좌장 : 권민정 인하대학교

Chair : KWEON Min Jung (Inha University)

G3.01 [09:00 - 09:12]

A three-dimensional sampling electromagnetic calorimeter for the KOTO2 experiment with the future extension of J-PARC Hadron Facility / KIM YoungJun¹, LIM GeiYoub², KIM Eun-Joo³, AHN Jung Keun¹ (¹Department of Physics, Korea University, ²IPNS, High Energy Accelerator Research Organization, KEK, ³Division of Science Education, Jeonbuk National University)

G3.02 [09:12 - 09:24]

Performance test of LaBr₃(Ce) γ -ray detectors and GCD method for fast-timing lifetime measurements / LEE Jaehwan¹, MOON Byul², JANG Youngseub¹, KIM Jiseok¹, HONG Byungsik¹, AHN Jung Keun¹ (¹Department of Physics, Korea University, ²RI Physics Lab., RIKEN Nishina Center)

G3.03 [09:24 - 09:36]

Development of a threshold aerogel Cherenkov detector for photoproduction of K⁺ and K(892)^{*} mesons at LEPS2 / YANG Hyunmin¹, AHN Jung Keun¹, YOSHIDA Chihiro², TOKIYASU Atsushi², RYU Sunyoung², YOSOI Masaru² (¹Department of Physics, Korea University, ²LEPS2, SPring8)

G3.04 [09:36 - 09:48]

Evaluation of the astrophysical rates of the ⁴²Ti(p,g)⁴³V and ⁴³V(p,g)⁴⁴Cr reactions / NGUYEN Uyen Kim¹, CHAE Kyung Yuk¹, NGUYEN Duy Ngoc¹, MOON Jun Young² (¹Physics Department, Sungkyunkwan University, ²Institute for Basic Science, Daejeon)

G3.05 [09:48 - 10:00]

GEM TPC prototype for low-energy heavy-ion beam experiments / KIM Shin Hyung¹, AHN Jung Keun¹ (¹Department of Physics, Korea University)

G3.06 [10:00 - 10:12]

Updates on the development of the multi-reflection time of flight mass spectrograph (MRTOF) at RAON / MOON Jun Young¹, HASHIMOTO Takashi¹, SHIN Taeksu¹, LEE Jinho¹, WADA Michiharu², SCHURY Peter², MIYATAKE Hiroari², WATANABE Yutaka², HIRAYAMA Yoshikazu², WATANABE Hiroshi⁷, NIWASE Toshitaka³, ROSENBUSCH Marco², CHAE Kyungyuk⁶, NGOC Duy⁶, NGUYEN KimUyen⁶, ITO Yuta⁴, WOLLNIK Hermann⁵ (¹Rare isotope science project, Institute for basic science, ²WNNSC, High Energy Accelerator Research Organization, KEK (Japan), ³RNC, RIKEN (Japan), ⁴Research group for Heavy element nuclear science, JAEA (Japan), ⁵Department of Chemistry & Biochemistry,

New Mexico State University (USA),⁶Department of physics, Sungkyunkwan University,
⁷School of physics, Beihang university (China)

G3.07 [10:12 - 10:24]

Influence of mass uncertainty on the (p,g)-(g,p) equilibrium in the rp-process /
NGUYEN Duy Ngoc¹, CHAE Kyung Yuk¹, NGUYEN Uyen Kim¹, MOON Jun Young²,
NGUYEN Hien Thi³ (¹Physics Department, Sungkyunkwan University, ²Institute of Basic
Science, Daejeon, ³Physics Department, Kyungpook National University)

G3.08 [10:24 - 10:36]

Modification of reaction rate in the astrophysical plasma using dynamic screening
effect / CHEOUN Myung Ki¹, HWANG EUNSEOK¹ (¹Department of Physics, Soongsil
University)

G3.09 [10:36 - 10:48]

Constraints on the Nuclear Saturation Properties using Experimental Data and
Astrophysical Observations / CHOI Soonchul¹, CHEOUN Myung Ki¹ (¹Department of
Physics, Soongsil University)

G

[G4-co] Strongly Correlated/Dielectric/Functional Oxides IV

2020. 07. 15 Wednesday 09:00~10:12

Room: 04

좌장 : 김범준 포항공과대학교

Chair : KIM Bumjoon (POSTECH)

G4.01 [09:00 - 09:12]

Resonant elastic and inelastic X-ray scattering at PLS-II / CHO Byeong-Gwan¹, KOO
Tae-Yeong¹ (¹Beamline Division, Pohang Accelerator Laboratory)

G4.02 [09:12 - 09:24]

Electric Multipole Transitions of Resonant X-ray Scattering for Studying Orbital
Specific Magnetization in TmB₄ / HWANG Sang Yun¹, SONG Changyong¹, CHO
Byeong-Gwan², KOO Tae-Yeong², JI Sungdae³, CHO Beongki⁴, LEE Ki Bong¹
(¹Department of Physics, POSTECH, ²Pohang Accelerator Laboratory, POSTECH, ³Neutron
Science Center, KAERI, ⁴School of Materials Science and Engineering, GIST)

G4.03 [09:24 - 09:36]

Resonant X-ray Scattering Study of Anisotropic Charge Distribution of Gd Ions in
GdB₄ / HWANG Sang Yun¹, CHO Byeong-Gwan², KOO Tae-Yeong², JI Sungdae³,
CHO Beongki⁴, LEE Ki Bong¹ (¹Department of Physics, POSTECH, ²Pohang Accelerator
Laboratory, POSTECH, ³Neutron Science Center, KAERI, ⁴School of Materials Science and
Engineering, GIST)

G4.04 [09:36 - 09:48]

X-ray microdiffraction study of local structural changes caused by polling in polycrystal (1-x)BiFeO₃-(x)BaTiO₃ / WI Sangwon¹, CHUNG Jin Seok¹ (¹Dept. of Physics, Soongsil University)

G4.05 [09:48 - 10:00]

Designing morphotropic phase boundary by La-doping in Bi-site of BiFeO₃-BaTiO₃ lead-free piezoceramics / SONG Tae Kwon¹, MUHAMMAD Habib¹, LEE Myang Hwan¹, KIM Da Jeong¹, CHOI Hai In¹, KIM Won-Jeong², KIM Myong-Ho¹ (¹School of Materials Science and Engineering, Changwon National University, ²Department of Physics, Changwon National University)

G4.06 [10:00 - 10:12]

Enhanced ferroelectric properties in Si doped HfO₂ thin films via oxygen vacancies controlling / CHAE Seung Chul¹, LEE Kyoungjun¹ (¹Dept. of Physics Education, Seoul National University)

[G5-co] Nano and mesoscopic physics II

2020. 07. 15 Wednesday 09:00~10:36

Room: 05

좌장 : 박희철 기초과학연구원

Chair : PARK Hee Chul (IBS)

G5.01 [09:00 - 09:12]

Higher-Order topology in Twisted Bilayer Graphene / PARK Moon Jip¹, KIM Youngkuk², CHO Gil Young³, LEE SungBin¹ (¹Department of Physics, KAIST, ²Department of Physics, Sungkyunkwan University, ³Department of Physics, POSTECH)

G5.02 [09:12 - 09:24]

Hofstadter butterfly and quantum Hall effect in twisted double bilayer graphene / CROSSE John Alexander^{1,2}, NAKATSUJI Naoto³, KOSHINO Mikito³, MOON Pilkyung^{1,2,4} (¹Arts and Sciences, New York University Shanghai, ²NYU-ECNU Institute of Physics, NYU Shanghai, ³Department of Physics, Osaka University, ⁴State Key Laboratory of Precision Spectroscopy, East China Normal University)

G5.03 [09:24 - 09:36]

Concomitant enhancement of electron-phonon coupling and electron-electron interaction in graphene decorated with ytterbium / KANG Minhee¹, HWANG Jinwoong¹, LEE Ji-Eun¹, FEDOROV Alexei², HWANG Choongyu¹ (¹Physics, Pusan National University, ²Advanced Light Source, UC Berkeley)

G5.04 [09:36 - 09:48]

Commensurate Double Moiré Superlattices in alternating-twisted Trilayer Graphene / SHIN Jiseon¹, JUNG Jeil¹ (¹Department of Physics, University of Seoul)

G5.05 [09:48 - 10:00]

Topological surface states in NiTe₂ / JUNG Sung Won¹, MUKHERJEE Saumya¹, KIM Timur K.¹, CACHO Cephise¹, WEBER Sophie F.², NEATON Jeffery B.² (¹Diamond Light Source, Harwell Campus, U.K., ²UC Berkeley, U.S.)

G5.06 [10:00 - 10:12]

Many-body approach to non-Hermitian physics in fermionic systems / LEE Hyunjik^{1,2,3}, LEE Eunwoo^{1,2,3}, YANG Bohm-Jung^{1,2,3} (¹Center for Correlated Electron Systems, IBS, ²Physics & Astronomy, Seoul National University, ³Center for Theoretical Physics, Seoul National University)

G5.07 [10:12 - 10:24]

Quantum Nanoelectromechanics with Superconducting Membranes / CHA Jinwoong¹, KIM Hakseong¹, SUH Junho¹ (¹Quantum Technology Institute, KRISS)

G5.08 [10:24 - 10:36]

Nanomechanics as a New Thermometer for Superfluid Thin Film / CHOI Hyung Soon¹, CHOI Hyunjin¹, JEONG Jinhoon¹, KIM Ryundon¹, SEO Junho² (¹KAIST, ²Department of Quantum Technology Institute, KRISS)

G

[G6-co] Other condensed materials/Instruments

2020. 07. 15 Wednesday 09:00~10:00

Room: 06

좌장 : 강현철 조선대학교

Chair : KANG Hyon Chol (Chosun University)

G6.01 [09:00 - 09:12]

In-situ Bragg coherent X-ray diffraction imaging of the faceting process of Au nanoparticles / HAN Seong Hyun¹, KWON Oh Young¹, KANG Sae Hyun¹, HAM Da seul³, LEE Ha Ram³, HA Sung Soo⁴, HWANG Byung Jun¹, OH Ho Jun¹, CHOI Suk June¹, YUN Young Min¹, LEE Su Yong⁵, KANG Hyon Chol³, NOH Do Young² (¹Department of Physics and Photon Science, GIST, ²IBS, ³School of Materials Science and Engineering, Chosun University, ⁴School of Materials Science and Engineering, GIST, ⁵9C Beamline, Pohang Accelerator Laboratory)

G6.02 [09:12 - 09:24]

Reversible transformation of defective domains in VO₂ films using x-ray scattering technique / HA Sung Soo¹, CHOI SukJune², OH Ho Jun², KWON Ouyoung², HWANG

Byeong Jun², CHOI Ye-Seul⁵, KIM Jin Woo², PARK Sungkyun⁵, KANG Hyon Chol⁴, NOH Do Young^{*3} (¹School of Materials Science and Engineering, GIST, ²Department of Physics and Photon Science, GIST, ³IBS, IBS, ⁴Department of Materials Science and Engineering, Chosun University, ⁵Department of Physics, Pusan National University)

G6.03 [09:24 - 09:36]

A Single-Ion Conducting Borate Network Polymer as a Viable Quasi-Solid Electrolyte for Lithium Metal Batteries / SHIN Dong-Myeong^{*1} (¹Mechanical Engineering, University of Hong Kong)

G6.04 [09:36 - 09:48]

Autonomous Atomic Force Microscope / KANG Seongseok¹, PARK Junhong¹, LEE Manhee^{*1} (¹Department of Physics, Chungbuk National University)

G6.05 [09:48 - 10:00]

Hysteresis compensation for a high-speed atomic force microscopy scanner / OTIENNO Luke Oduor¹, ALUNDA Bernard Ouma², LEE Yong Joong^{*1} (¹School of Mechanical Engineering, Kyungpook National University, ²School of Mines and Engineering, Taita Taveta University)

[G7-ap] Advanced materials I

2020. 07. 15 Wednesday 09:00~10:00

Room: 07

좌장 : 임은주 단국대학교

Chair : LIM EunJu (Dankook University)

G7.01 [09:00 - 09:12]

Synthesis of freestanding complex-oxide membranes via graphene-assisted molecular beam epitaxy / LEE JUNE HYUK^{*1}, KUM Hyun S.², SCHLOM Darrell G³, KIM Jeehwan² (¹Neutron Science Division, KAERI, ²Department of Mechanical Engineering, MIT, ³Department of Materials Science and Engineering, Cornell University)

G7.02 [09:12 - 09:24]

Growth of Single Crystalline $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ thin film and its potential applications as a memristor / PARK Jun-Cheol¹, SEO Sehun¹, LEE Jongmin¹, LEE Sanghan^{*1} (¹School of Materials Science and Engineering, GIST)

G7.03 [09:24 - 09:36]

Reduction of Annealing Temperature of $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ Thin Films via Deep-Ultraviolet Irradiation / JOH Hyunjin¹, ANOOP Gopinathan¹, DAS Dipjyoti², LEE Won Jun¹, LEE Jun Young¹, SEOL WooJun¹, JEON Sanghun², YOON Myung Han¹, JO Ji Young^{*1} (¹School of Materials Science and Engineering, GIST, ²School of Electrical Engineering, KAIST)

G7.04 [09:36 - 09:48]

Advanced synthesis of pristine and nitrogen doped graphene and its gas sensor / KIM Keun Soo^{*1}, LEE Dong Yun¹, NAM Jungtae^{1,2}, JANG A-Rang³, KIM Min Jae¹, KO Young-il¹, HWANG Jun Yeon², LEE Jeong-O³ (¹Department of Physics & Astronomy, Sejong University, ²Institute of Advanced Composite Materials, KIST, ³Advanced Materials Division, KRICT)

G7.05 [09:48 - 10:00]

Self-assembly of polyhedral plasmonic nanoparticles for unnaturally high refractive index optical metamaterial / HUH Ji-Hyeok¹, LEE Jaewon¹, LEE Seungwoo^{*1,2,3} (¹Graduate School of Converging Sci & Tech, Korea University, ²Department of Biomicrosystem Technology, Korea University, ³KU Photonics Center, Korea University)

[G8-ap] Nanomaterials III

2020. 07. 15 Wednesday 09:00~10:24

Room: 08

좌장 : 최진식 건국대학교

Chair : CHOI Jin Sik (Konkuk University)

G

G8.01 [09:00 - 09:12]

Nano network formation in metal-PC molecules via PEDOT:PSS / LEE Sung Hun¹, HONG Seung Yeon¹, LEE Hyun Hwi², KIM Hyo Jung^{*1} (¹Organic Material Science and Engineering, Pusan National University, ²Pohang Accelerator Laboratory, POSTECH)

G8.02 [09:12 - 09:24]

Vertical graphene as a permanent strain sensor / LEE Sunghun^{*1}, YUN Yong Ju² (¹Department of Physics, Sejong University, ²Green School, Korea University)

G8.03 [09:24 - 09:36]

Enhancement of thermoelectric performance of silicon nanowires with gold nanoparticles / JEON Gi Wan², JANG Jae Won^{*2} (¹Department of Physics, Pukyong National University, ²Department of Physics, Dongguk University)

G8.04 [09:36 - 09:48]

Unidirectional alignment of AgCN microwires on 1T' layered crystals / JANG Myeongjin^{1,2}, LEE Yangjin^{1,2}, BAE Hyeonhu³, NA Woongki⁴, CHEONG Hyeonsik⁴, LEE Hoonkyung³, KIM Kwanpyo^{*1,2} (¹Physics, Yonsei University, ²Center for Nanomedicine, IBS, ³Physics, Konkuk University, ⁴Physics, Sogang University)

G8.05 [09:48 - 10:00]

Dewetting process of Co thin films in water environment driven by ns pulse laser / CHOI Jung Won¹, HAN Seong Hyun², OH Hojun², HAM Daeseul³, KANG Hyon Chol³,

NOH Do Young⁴ (¹School of Materials Science and Engineering, GIST, ²Department of Physics and Photon Science, GIST, ³Department of Materials Science and Engineering, Chosun University, ⁴IBS, IBS)

G8.06 [10:00 - 10:12]

Fabrication and Characterizations of MoS₂ Monolayers on Plasmonic Au Nanogratings
/ KWON Soyeong¹, SONG Jungeun¹, KIM Bora¹, LEE Sang Wook¹, KIM Dong-Wook¹
(¹Department of Physics, Ewha Womans University)

G8.07 [10:12 - 10:24]

In-Plane Anisotropic Properties and Thermoelectric power factor of GeSe Nanoflakes
/ KIM Kwanpyo¹, JANG Jeongsu^{1,2}, LEE Yangjin¹, BAE Heesun¹, IM Seongil¹ (¹Physics, Yonsei University, ²Physics, UNIST)

[G9-G14] No Session

[G15-as] Astrophysics Experiments/Observations II

2020. 07. 15 Wednesday 09:00~10:12

Room: 15

좌장 : 임명신 서울대학교

Chair : IM Myung Shin (Seoul National University)

G15.01 [09:00 - 09:12]

Status of the GroundBIRD experiment / LEE Kyungmin¹, CHOI Jihoon², GéNOVA-SANTOS Ricardo Tanausú³, HATTORI Makoto⁴, HAZUMI Masashi^{5,6}, HONDA Shunsuke⁷, IKEMITSU Takuji⁷, ISHIDA Hidesato^{4,8}, ISHITSUKA Hikaru⁶, JO Yonggil¹, KARATSU Kenichi⁹, KIUCHI Kenji¹⁰, KOMINE Junta⁷, KOYANO Ryo¹¹, KUTSUMA Hiroki^{4,8}, MIMA Satoru⁸, MINOWA Makoto¹⁰, NAGAI Makoto¹², NAGASAKI Taketo⁸, NARUSE Masato¹¹, OGURI Shugo⁸, OTANI Chiko^{4,8}, PEEL Michael³, REBOLO Rafael³, RUBIÑO-MARTÍN José Alberto³, SEKIMOTO Yutaro¹³, SUENO Yoshinori⁷, SUZUKI Junya⁷, TAINO Tohru¹¹, TAJIMA Osamu⁷, TOMITA Nozomu¹⁰, TSUJI Yuta^{4,8}, UCHIDA Tomohisa^{5,6}, WON Eunil¹, YOSHIDA Mitsuhiro^{5,6} (¹Department of Physics, Korea University, ²Radio Technology Development Group, Korea Astronomy and Space Science Institute (KASI), ³Instituto de Astrofísica de Canarias (IAC), Spain, ⁴Department of Physics, Tohoku University, Japan, ⁵High Energy Accelerator Research Organization (KEK), Japan, ⁶The Graduate University for Advanced Studies (SOKENDAI), Japan, ⁷Department of Physics, Kyoto University, Japan, ⁸Institute of Physical and Chemical Research (RIKEN), Japan, ⁹Netherlands Institute for Space Research (SRON), Netherlands, ¹⁰Department of Physics, The University of Tokyo, Japan, ¹¹Department of Physics, Saitama University, Japan, ¹²National Astronomical Observatory of Japan (NAOJ), Japan, ¹³Japan Aerospace Exploration Agency (JAXA), Japan)

G15.03 [09:12 - 09:24]

Estimation of acceleration noise for SISA (Stellar Interferometer Space Antenna) / LEE KWANGHO¹, PARK IL Hung¹, HONG GIHAN¹, KIM MINHYO¹, KIM CHANYEOL¹, WON EUNIL² (¹Physics, Sungkyunkwan University, ²Physics, Korea University)

G15.05 [09:24-09:36]

Search for secluded dark matter with the IceCube neutrino telescope / CHRISTOPH Toennis^{*1} (¹Physics, Sungkyunkwan University)

G15.06 [09:36 - 09:48]

Cosmic-ray Spectra of Heavy Nuclei Using the ISS-CREAM Instrument / KANG Sinchul¹, KIM Hong Joo^{*1}, PARK Hwanbae¹, LEE Jik¹, JEONG Dongwoo¹, JEON Hyebin¹, PARK Jeongmin², SEOK Hwangyong³, HYUN Hyojung⁴, LEE Moohyun⁵, SEO Eunsuk⁶ (¹Department of Physics, Kyungpook National University, ²Advanced Radiation Technology Institute, Korea Atomic Energy Research Institute, ³Korea Multi-purpose Accelerator Complex, Korea Atomic Energy Research Institute, ⁴4th generation synchrotron radiation accelerator institute, Pohang Accelerator Laboratory, ⁵Center for Underground Physics, Institute for Basic Science, ⁶Department of Physics, University of Maryland)

Session H

2020 July 15(Wed) 11:10-12:58

[H1-H3] No Session

[H4-co] Focus: Ferrioc Materials Imaging

2020. 07. 15 Wednesday 11:10~13:10

Room: 04

좌장 : 양찬호 한국과학기술원

Chair : YANG Chan-Ho (KAIST)

H4.01 [11:10 - 11:34]

Nanosecond electric field-induced phase transition of Co-doped BiFeO₃ thin film / JO Ji Young*¹ (GIST)

H4.02 [11:34 - 11:58]

Antiferromagnetic ordering in 2 dimensions studied with Raman spectroscopy / CHEONG Hyeonsik*¹ (Department of Physics, Sogang University)

H4.03 [11:58 - 12:22]

Nonlinear optical imaging of micro- and nano-scale polar phases / LEE Jong Seok*¹ (Department of Physics and Photon Science, GIST)

H4.04 [12:22 - 12:46]

Probing the conventional magnetic states by magnetic force microscopy / KIM Jeehoon*¹ (POSTECH)

H4.05 [12:46 - 13:10]

Atomic Electron Tomography: A Novel Approach for Atomic-Scale 3D Imaging of Ferrioc Materials / YANG Yongsoo*¹ (Department of Physics, KAIST)

[H5-co] Surface/interface/nanomaterials

2020. 07. 15 Wednesday 11:10~12:58

Room: 05

좌장 : 황춘규 부산대학교

Chair : HWANG Choongyu (Pusan National University)

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H5.01 [11:10 - 11:22]

Correlation between Structural Phase Transition and Surface Chemical Properties of thin film SrRuO₃/SrTiO₃ (001) / MUN Bongjin Simon^{*1}, LIM Hojoon¹, KIM Dongwoo¹, HA Sung Soo², SEO Okkyun³, LEE Sung Su², KIM Jinwoo⁴, KIM Ki-jeong⁴, RAMIREZ Lucia Perez⁵, GALLET Jean-Jacques^{5,6}, BOURNEL Fabrice^{5,6}, JO Ji Young², NEMSAK Slavomir⁷, NOH Do Young^{*1} (¹Department of Physics and Photon Science, GIST, ²School of Materials Science and Engineering, GIST, ³Research Network and Facility Services Division, National Institute for Materials Science, ⁴Pohang Accelerator Laboratory, POSTECH, ⁵Laboratoire de Chimie Physique Matière et Rayonnement, Sorbonne Université, ⁶L'Orme des Merisiers, Synchrotron SOLEIL, ⁷Advanced Light Source, Lawrence Berkeley National Laboratory)

H5.03 [11:22 - 11:34]

MoS₂ triboelectric nanogenerators using depletion layer formation / YOO Kyung-Hwa^{*1}, KIM Myeongjin¹, KIM Sung Hyun¹, PARK Myung Uk¹, LEE ChangJun¹ (¹Department of Physics, Yonsei University)

H5.04 [11:34 - 11:46]

STM studies of endohedral metallofullerene: Gd@C₈₂ on Au(111) / BAE Yujeong^{*1}, NOH Kyungju^{1,2}, HWANG Jiyeon^{1,2}, KRYLOV Denis¹, HEIANRICH Andreas^{1,2} (¹Center for Quantum Nanoscience, IBS, ²Department of Physics, Ewha Womans University)

H5.06 [11:46 - 11:58]

Atomic Scale Study for 2D materials using high resolution Atomic Force Microscopy / HYUN ChangBae^{*1}, KIM Jong Hun², LEE Jong-Young³, LEE Gwan-Hyoung², KIM Kwang S⁴ (¹POSTECH, ²Department of Materials Science and Engineering, Seoul National University, ³Department of Materials Science and Engineering, Yonsei University, ⁴Department of Chemistry, UNIST)

H5.07 [11:58 - 12:10]

A plausible method of preparing the ideal p-n junction interface of a thermoelectric material by surface doping / LEE Ji-Eun^{1,2}, HWANG Jinwoong^{1,3}, RYU Hyejin², KANG Minhee¹, KIM Kyoo⁴, KIM Yongsam⁵, KIM Namdong⁵, DUONG Anh Tuan⁶, CHO Sunglae⁶, MO Sung-Kwan³, YANG Imjeong¹, HWANG Choongyu^{*1} (¹Physics, Pusan National University, ²Center for Spintronics, Korea Institute of Science and Technology, ³Advanced Light Source, Lawrence Berkeley National Laboratory, ⁴Center for Complex Phase Materials, Max Planck-POSTECH/Hsinchu Center for Complex Phase Materials, ⁵Pohang

H5.08 [12:10 - 12:22]

Enhanced Anti-Stokes Photoluminescence at Nano-Pyramidal Tips Under Acoustic Phonon Pumping / HOSSEN Raqibul¹, HWANG Hyeong-Yong¹, LIM Seung-Hyuk², SONG Hyun-Gyu², WOO Kie-Young², CHO Yong-Hoon², JHO Young Dahl¹ (¹School of Electrical and Computer Engineering, GIST, ²Department of Physics, KAIST)

H5.09 [12:22 - 12:34]

Identification of the absorption geometries and electronic structures of VOPc molecules on Au (111) surface / NAM Shinjae^{1,2}, JUNG Jinoh^{1,2,3}, WOLF Christoph^{1,2}, CHAE Jungseok², HEINRICH Andreas^{1,2} (¹Department of Physics, Ewha Womans University, ²Center for Quantum Nanoscience, IBS, ³Department of Physics, KAIST)

[H6-co] Condensed Matter Computational Physics III

2020. 07. 15 Wednesday 11:10~12:46

Room: 06

좌장 : 고아라 기초과학연구원

Chair : GO Ara (IBS)

H6.01 [11:22 - 11:34]

Nearly Flat Bands in Twisted Graphene on Bilayer Graphene (tGBG) / PARK Youngju¹, CHITTARI Bheema Lingam¹, JUNG Jeil¹ (¹Department of Physics, University of Seoul)

H6.02 [11:34 - 11:46]

Quantum hybridization negative differential resistance in vertical graphene heterostructures from ab initio / KIM Tae Hyung¹, LEE Juho¹, KIM Han Seul¹, LEE Ryong Gyu¹, KIM Yong-Hoon¹ (¹School of Electrical Engineering, KAIST)

H6.03 [11:46 - 11:58]

First-Principle Study on diffusion behavior of nickel in graphene-capped silicon thin film / KWON Young-Kyun¹, LEE Hyung-June¹ (¹Department of Physics, Kyung Hee University)

H6.04 [12:10 - 12:22]

Impact of W thickness on Perpendicular Magneto-crystalline Anisotropy of Pt/Co/W(111) Superlattices / HO Huynh Thi¹, KIM Sanghoon¹, RHIM Sonny¹, HONG Soon Cheol¹ (¹Department of Physics, University of Ulsan)

H6.05 [12:22 - 12:34]

First-principles study of effects of local Coulomb repulsion and Hund's coupling in

ferromagnetic semiconductor CrGeTe₃ / KO Eunjung¹, SON Young-Woo¹ (¹KIAS)

H6.06 [12:34 - 12:46]

Tunability of Magnetism and Half-metallicity of Heusler Mn₂Ga upon Co-Substitution
/ NGUYEN Thi Quynh Anh¹, HO Huynh Thi¹, HONG Soon Cheol¹, RHIM Sonny¹
(¹Department of Physics, University of Ulsan)

[H7-ap] Advanced materials II

2020. 07. 15 Wednesday 11:10~12:10

Room: 07

좌장 : 김경환 한국과학기술연구원

Chair : KIM Kyoung-Whan (KIST)

H7.01 [11:10 - 11:22]

Chirality-dependent transport in antiferromagnetic Weyl semimetal / PARK Jin Hong¹, HWANG Euyheon² (¹Department of physics, Sungkyunkwan University, ²SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University)

H7.02 [11:22 - 11:34]

A historic pigment for spin thermoelectric generator / YOO Jung-Woo¹, OH Inseon¹, PARK Jungmin², CHOI Daseong¹, JO Junhyeon¹, JEONG Hyeonjung¹, JIN Mi-jin¹, JO Younghun², SUH JoonKi¹ (¹Materials Science and Engineering, UNIST, ²Division of Scientific Instrumentation & Management, KBSI)

H7.03 [11:34 - 11:46]

Study of magnetism in polycrystalline PrBaCo₂O_{5.76±x} / HEO Yunseok¹, ANNAS Dicky², PARK Kang Hyun², JEEN Hyoung Jeon¹ (¹Department of Physics, Pusan National University, ²Department of Chemistry, Pusan National University)

H7.04 [11:46 - 11:58]

Adsorption, diffusion and penetration of boron and nitrogen atoms near the Pt(111) surface. / PARK Karam¹, JEONG Suk Min¹ (¹Department of Physics, Jeonbuk National University)

H7.05 [11:58 - 12:10]

Achieving superconducting Sr₂RuO₄ thin films by controlling structural defects / KIM Jinkwon^{1,2}, MUN Junsik³, PALOMARES GARCIA Carla⁴, JO Yongcheol⁵, KIM Jeong Rae^{1,2}, KO Eun Kyo^{1,2}, CHANG Seo Hyoung⁶, CHUNG Suk Bum^{7,8,9}, KIM Miyoung³, IM Hyunsik⁵, ROBINSON Jason W. A.⁴, KIM Changyoung^{1,2}, MAENO Yoshiteru¹⁰, WANG Lingfei^{1,2}, NOH Tae Won^{1,2} (¹Center for Correlated Electron Systems, Institute for Basic Science, ²Department of Physics and Astronomy, Seoul National University, ³Department of Materials Science and Engineering and Research Institute of Advanced Materials,

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Seoul National University, ⁴Department of Materials Science and Metallurgy, University of Cambridge, ⁵Division of Physics and Semiconductor Science, Dongguk University, ⁶Department of Physics, Chung-Ang University, ⁷Department of Physics, University of Seoul, ⁸Natural Science Research Institute, University of Seoul, ⁹School of Physics, Korea Institute for Advanced Study, ¹⁰Department of Physics, Kyoto University)

[W17-or] APCTP SF 연극 <당신을 기다리고 있어>

2020. 07. 14 Tuesday 19:00~21:00

Room: 17

좌장 : 손승우 한양대학교 응용물리학과

Chair : SON Seung-Woo (Hanyang University)

APCTP에서 김보영 작가의 SF 연극 <당신을 기다리고 있어>를 온라인으로 상영하고자 합니다. 대중적 재미를 기반으로 한 연극이지만 우주와 인류, 시공간 초월 등 과학적 소양을 포함하고 있어 전문성과 재미를 모두 충족시킬 프로그램입니다.

작품 내용: 연극 <당신을 기다리고 있어>는 작가의 동명 소설을 원작으로 합니다. 작품은 작가의 팬이었던 독자가 프리포즈를 하기 위해 작가에게 부탁하여 쓰여진 서간문 형식의 이야기입니다. 광속으로 성간 여행이 가능해진 시대에 주인공 약혼자는 다른 별로 이주하는 가족을 배웅하기 위해 지구 시간으로 9년이 걸리는 알파 센타우리에 다녀와야 하는 내용으로 시작합니다. 주인공이 9년의 기다림을 두 달로 단축하기 위해 상대성의 원리에 따라 태양계를 광속으로 운행하는 '기다림의 배'에 올라타면서 본격적인 '과학로맨스'가 진행됩니다.

작가 소개: 김보영 작가는 현재 한국 SF 소설을 대표하는 소설가 중 한 명입니다. 2004년 「촉각의 경험」 제1회 과학기술창작문에 공모전 중편 부문 수상 2015년 단편 「진화신화」 미국 SF웹진 '클락스월드매거진'에 번역되어 소개 2021년 미국 최대 출판 그룹인 '하퍼콜린스'를 통해 「당신을 기다리고 있어」 등 3권의 소설 출간 예정 봉준호 감독 <설국열차> 자문 등 SF와 연계되는 다방면에서 활동 중 저서 「저 이승의 선지자」 「천국보다 성스러운」 「7인의 집행관」 등

상영 방법: 온라인 중계



포스터발표논문 시간표

Poster session schedule

2020. 07. 13 Monday 14:00~15:00

Room: Poster Room

P1-ap.101

촉매 이온종 변화에 따른 제조된 그래핀 양자점의 구조 및 특성 변화 / HA Jun Mok¹, LEE Seoung Ho¹, HWANG Young Seok¹, LEE Chan Young¹, SUK Jae Kwon¹, JUNG Myung Hwan¹, YEO Sun Mog¹, LEE Jae Sang¹ (¹KOMAC, KAERI)

P1-ap.102

Magnesium Concentration Effects on Physical Properties of the Post Annealed Ga-doped Zn_{1-x}Mg_xO Thin Films using the Rapid Thermal Process / JUN Byeong-Eog¹, LEE Sangyun², KIM Donghwi², PARK Chaejin² (¹Department of Physics and Earth Science, Korea Science Academy, ²General Students, Korea Science Academy)

P1-ap.103

Synthesis of correlated oxides applicable for temperature sensors via tailoring doping profile / LEE Seoyun^{1,2}, YANG Haneul^{1,2}, LEE Sangwook³, KO Changhyun^{1,2,4} (¹Department of Physics, College of Science, Sookmyung Women's University, ²Institute of Advanced Materials and Systems, Sookmyung Women's University, ³School of Materials Science & Engineering, Kyungpook National University, ⁴Department of Applied Physics, Sookmyung Women's University)

P1-ap.104

광전기화학 전지 응용을 위한 Cu₂O (111) 구조체의 구조적, 광학적 특성 / 천미연¹, 김수재¹, JEONG Se Young^{2,3} (¹부산대학교 단결정은행연연구소, ²부산대학교 인지메카트로닉스공학과, ³Dept. of Optics and Mechatronics engineering, Pusan National University)

P1-ap.105

Metal Insulator Transition Properties of V₂O₃ Film Controlled by Crystallographic Texture / HONG Jung-Il¹, HA Jae-Hyun¹ (¹Emerging Materials Science, DGIST)

P1-ap.106

LASER scribed carbon nanomaterial on polymer films for gas sensor / KIM Min Jae¹, JANG A-Rang², KO Young-il¹, LEE Dong Yun¹, NAM Jungtae^{1,3}, LEE Jeong-O², KIM Keun Soo¹ (¹Department of Physics & Astronomy, Sejong University, ²Advanced Materials Division, KRICT, ³Institute of Advanced Composite Materials, KIST)

P1-ap.107

Polarized Raman study on GaTe / HOANG Nguyen The¹, LEE Je-Ho¹, HOA Vu Thi², CHO Sunglae², SEONG Maeng-Je¹ (¹Department of Physics, Chung-Ang University, ²Department of Physics, University of Ulsan)

P1-ap.108

Raman study on magnetic excitations in RuCl_3 / LEE Je-Ho¹, DO Seung-Hwan¹, CHOI Kwang-Yong¹, SEONG Maeng-Je^{*1} (¹Department of Physics, Chung-Ang University)

P1-ap.109

Effect of on-surface molecular absorption on magnetic properties of ultrathin Co film / YOO Jung-Woo^{*1}, LEE Jaebyeong¹, JO Junhyeon¹, OH Inseon¹, CHOE Daeseong¹, CHOI Jonghyeon¹ (¹UNIST)

P1-ap.110

Effects of Sputtering Conditions on Stoichiometry and Crystallinity of MoS_2 Thin Film / PARK Beomjin¹, GU Minseon¹, HAN Moonsup^{*1} (¹Department of Physics, University of Seoul)

P1-ap.111

Effect of MgO RF Power Sputtering on Time Dependent Dielectric Breakdown(TDDB), R-V curve Characteristics for Double MgO Based Perpendicular-Magnetic-Tunneling-Junction / PARK Jeagun^{*1,2}, LEE HyunKyu² (¹Hanyang University, ²Department of Nanoscale Semiconductor Engineering, Hanyang University)

P1-ap.112

Dust collecting efficiency of V-doped ZnO coated mesh / SEOL WooJun¹, JOH Hyun Jin¹, LEE Jun Young¹, KIM Tae Yeon¹, SHIN Cheolwoong², JO Ji Young^{*1} (¹School of Materials Science and Engineering, GIST, ²Building Energy Center, KCL (Korea Conformity Laboratories))

P1-ap.113

EPR Parameters of Cu^{2+} Complex with CuO Content in $\text{K}_2\text{O-B}_2\text{O}_3\text{-CuO}$ Glasses / SONG Seung Kee^{*1}, KIM Young Hoon¹, NOH Tae Ho¹ (¹Myongji University)

P1-ap.114

Using Non-plasmonic Semiconductor Substrates to Explain Chemical Enhancement Mechanism of SERS / YOON Seokhyun^{*1}, KIM Jayeong¹, JANG Yujin¹, KIM Nam-Jung², KIM Heehun², YI Gyu-Chul², SHIN Yukyung³, KIM Myunghwa³ (¹Department of Physics, Ewha Womans University, ²Department of Physics and Astronomy, Seoul National University, ³Department of Chemistry, Ewha Womans University)

P1-ap.115

극 저온용 FMR_ISH 전압 측정 장치 개발 / JO Young Hun^{*1}, KOO Seul gi¹, PARK Jungmin¹, PARK Seung-young¹, LEE Ah-yeon², OH Inseon³, YOO Jung-Woo³ (¹Center for Scientific Instrumentation, KBSI, ²Center for Research Equipment, KBSI, ³School of Materials Science and Engineering, UNIST)

P1-ap.116

Synthesis and characterization of $\text{Li}_x\text{Ti}_y\text{O}_{2-z}/\text{CNT}$ as an active material for the negative electrode in secondary lithium-ion batteries / BALTAZAR INIGUEZ Freddy¹, KIM Yang-

Soo², MALDONADO NOGALES Paul³, JEONG Soon-Ki³, CHO Deok-Yong*⁴ (¹IPIT and Department of Nanoscience and Technology, Jeonbuk National University, ²Korea Basic Science Institute, KBSI, ³Department of Chemical Engineering, Soonchunhyang University, ⁴IPIT and Department of Physics, Jeonbuk National University)

2020. 07. 13 Monday 14:00~15:00

Room: Poster Room

P1-ap.202

Helical magnetic field-driven chiral self-assembly of magnetoplasmonic nanoparticles / JEONG Ki-Jae¹, LEE Jaebeom² (¹Cogno-mechatronics Engineering, Pusan National University, ²Chemistry, Chungnam National University)

P1-ap.203

Development of hydrogen gas filter using proton beam and application of microbial fuel cell / CHO Seongjib¹, LIM Eunju^{*1} (¹Dept. of Science Education/Creative Convergent Manufacturing Engineering, Institute of Integrated Science Education, Dankook University)

P1-ap.204

Characteristics of a movable hybrid III-V/Si optical resonator / PARK Kyong-Tae¹, JEONG Tae-Young¹, NO You-Shin^{*1} (¹Physics, Konkuk University)

P1-ap.205

Colorimetric Strain Sensor by Magnetoplasmonic photonic crystal array on flexible substrate / LEE Jaebeom^{*1}, HWANG DAJEONG¹ (¹Chemistry, Chungnam National University)

P1-ap.206

Hole transport mechanism of high ionization energy hole transport layer in inverted organic photovoltaics / KIM Wonsik¹, SHIN Woojin¹, CHOI Seungsun¹, PARK Chaeryeon¹, HAN Hyeji¹, LEE Hyun Bok^{*1} (¹Department of Physics, Kangwon National University)

P1-ap.207

The effect of PiG thickness for fabrication with sintering energy drop / LEE Woo Cheol², PARK Jin Young¹, CHUNG Jong Won¹, YANG Hyun Kyoung^{*1,2} (¹Interdisciplinary Graduate Program of Artificial Intelligence on Computer, Electronic and Mechanical Engineering, Pukyong National University, ²Department of Electrical, Electronics and Software Engineering, Pukyong National University)

P1-ap.208

In-plane hyperbolic dispersion of ZnN stripes / LEE Chang Won^{*1}, CHOI Hee Jin² (¹Department of Applied Optics, School of Basic Sciences, Institute of Advanced Optics and photonics, Hanbat National University, ²Institute of Advanced Optics and Photonics, Hanbat National University)

P1-ap.209

Micro-post위에 전사한 micro-disk laser / KIM Min-Woo¹, PARK Sun-Wook¹, NO You-Shin¹
(¹Physics, Konkuk University)

P1-ap.210

Optical modulation spectroscopy study on additive-induced efficiency enhancement of organic photovoltaic devices / PARK Sangheon¹, SEO Yu-Seong¹, KANG Dae Joon¹, HWANG Jungseek¹ (¹Sungkyunkwan University)

P1-ap.211

Polarized Raman scattering study of methylammonium lead chloride single crystals / YOON Seokhyun¹, NGUYEN Trang Thi Thu¹, KIM Yejin¹, PARK Joohee¹, BAE Soungmin², BARI Maryam³, JUNG Hye Ri¹, JO William¹, KIM Yong-Hoon², YE Zuo-Guang³ (¹Department of Physics, Ewha Womans University, ²School of Electrical Engineering, KAIST, ³Department of Chemistry and 4D LABS, Simon Fraser University)

P1-ap.212

분광계 특성에 따른 SD-OCT 시스템의 영상에서의 차이점 / LEE Seung Seok¹, MA Hye Jun², KANG Hui Won³, CHOI Eun Seo⁴ (¹Department of Physics, Chosun University, ²Department of Physics, Chosun University, ³Department of Physics, Chosun University, ⁴Department of Physics, Chosun University)

P1-ap.213

광학적 위상 안정화 기법 기반 디지털 홀로그래피 현미경 시스템 / MA Hye Jun¹, LEE Seung Seok², KANG Hui Won³, CHOI Eun Seo⁴ (¹Department of Physics, Chosun University, ²Department of Physics, Chosun University, ³Department of Physics, Chosun University, ⁴Department of Physics, Chosun University)

P1-ap.214

Highly Tunable Molecular Rectifier Realized by Interfacial Design in Molecular Heterojunction with Two-Dimensional Materials / SHIN Jaeho¹, YANG Seunghoon¹, JANG Yeonsik², EO Jung Sun¹, KIM Tae-Wook³, LEE Takhee², LEE Chul-Ho¹, WANG Gunuk¹ (¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University, ³Department of Flexible and Printable Electronics, Jeonbuk National University)

P1-ap.215

One-dimensional organic artificial synapse based on the ferroelectric organic transistor for wearable neuromorphic applications / WANG Gunuk¹, HAM Seonggil¹, KANG Minji², JANG Seunghoon¹, JANG Jingon¹, CHOI Sanghyeon¹, KIM Tae-Wook³ (¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Institute of Advanced Composite Materials, KIST, ³Department of Flexible and Printable Electronics, Jeonbuk National University)

2020. 07. 13 Monday 14:00~15:00

Room: Poster Room

P1-co.101**Analysis of magnetic hysteresis loss in Z-stacked GdBCO coated conductor strips** / RI H.-C.^{*1}, KIM Chan¹, KIM Young-kyoung¹, JEON Sung-min¹ (¹Kyungpook National University)**P1-co.102****La_{1.85}Sr_{0.15}CuO₄ thin film growth and in-situ angle resolved photoemission spectroscopy** / KIM Youngdo¹, KIM Changyoung^{*1} (¹Department of Physics and Astronomy, Seoul National University)**P1-co.103****Analysis of local superconducting properties in GdBCO coated conductor with various narrow paths** / RI H.-C.^{*1}, KIM Y.-K.¹, PARK S.-K.¹, KIM C.¹, JEON S.-M.¹ (¹Kyungpook National University)**P1-co.104****Construction of Radio Frequency mK-Scanning Tunneling Microscope** / KIM Jinkyung¹, BUI Hong Thi¹, KRYLOV Denis¹, JANG Won Jun^{*1}, HEINRICH Andreas¹ (¹Center for quantum nanoscience, Ewha Womans University)**P1-co.105****Developing ultra-sensitive microwave detector with graphene-based Josephson junction** / LEE Gil-Ho^{*1,2}, JUNG Woochan¹, EFETOV Dmitri K.³, RANZANI Leonardo⁴, WALSH Evan D.^{5,6}, OHKI Thomas A.⁴, TANIGUCHI Takashi⁷, WATANABE Kenji⁷, KIM Philip², ENGLUND Dirk⁵, FONG Kin Chung⁴ (¹Department of Physics, POSTECH, ²Department of Physics, Harvard University, ³ICFO-Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology, ⁴Quantum Information Processing Group, Raytheon BBN Technologies, ⁵Department of Electrical Engineering and Computer Science, MIT, ⁶School of Engineering and Applied Sciences, Harvard University, ⁷National Institute for Materials Science)**P1-co.106****stability of skyrmion vortices in a chiral p-wave superconductor** / KIM HEESANG^{*1}, PARK Daehan¹ (¹Department of Physics, Soongsil University)**P1-co.107****Hall resistivity in superconducting tantalum ultra-thin film with periodic nano-hole array** / SUHYEON NOH^{*1}, JUNGHYUN Shin¹, EUNSEONG Kim¹ (¹Phisics, KAIST)

P1-co.108

Evidence of Higher Order Topology in WTe_2 from Josephson Coupling through Anisotropic Hinge States / CHOI Yong-Bin¹, XIE Yingming², CHEN Chui-Zhen^{2,8}, PARK Jinho¹, SONG Su-Beom³, YOON Jiho⁴, KIM Bum Joon^{1,5}, TANIGUCHI Takashi⁶, WATANABE Kenji⁶, KIM Jong-Hwan³, FONG Kin. Chung.⁷, ALI Mazhar N.⁴, LAW Kam. Tuen.², LEE Gil-Ho^{*1} (¹Department of Physics, POSTECH, ²Department of Physics, Hong Kong University of Science and Technology, Hong Kong, China, ³Department of Materials Science and Engineering, Pohang University of Science and Technology, ⁴Max Plank Institute for Microstructure Physics, Germany, ⁵Center for Artificial Low Dimensional Electronic Systems, Institute for Basic Science (IBS), ⁶Research Center for Functional Materials, National Institute for Materials Science, Japan, ⁷Raytheon BBN Technologies, Quantum Information Processing Group, USA, ⁸Institute for Advanced Study and School of Physical Science and Technology, Soochow University, China)

P1-co.109

3차원 초전도 마이크로파 공진기의 온도 의존성 / KIM Duk Y.^{*1}, KIM Dong kyu¹, LEE Su-Yong¹, KIM Zaeil¹ (¹Agency for Defense Development)

P1-co.110

Effect of thermal annealing on magnetic properties of $SrFe_{12}O_{19}$ ceramics / JEEN Hyoung Jeen^{*1}, KANG KungWan¹ (¹Department of Physics, Pusan National University)

P1-co.111

Spin flop induced Anisotropic Magnetoresistance in Antiferromagnetic $Ca_{0.9}Sr_{0.1}Co_2As_2$ / KIM Jong Hyuk¹, OH Dong Gun¹, SHIN Hyun Jun¹, LEE Nara¹, CHOI Young Jai^{*1} (¹Department of Physics, Yonsei University)

P1-co.112

Effect of Thermal Annealing on Physical Properties of Epitaxial $SrFe_{12}O_{19}$ thin films / JEEN Hyoung Jeen^{*1}, LEE Joonhyuk¹, ROULEAU Christopher M², KEUM Jong K.^{2,3}, RYU Sangkyun¹, HEO Yunseok¹, PAJEROWSKI Daniel⁴, LEE June Hyuk⁵ (¹Department of Physics, Pusan National University, ²Center for Nanophase Materials Sciences, Oak Ridge National Lab, ³Neutron Science Division, Oak Ridge National Lab, ⁴Neutron Scattering Division, Oak Ridge National Lab, ⁵Neutron Science Division, KAERI)

P1-co.113

Dielectric and Magnetic Properties of Bilayer Ferrites / LEE Jun Han¹, SONG Seunghoon², ROH Changjae³, LEE Hyun Jae⁴, KIM Donghwan^{5,6}, CHO Byeong-Gwan⁷, KO Kyung-Tae^{5,6}, KOO Tae-Young⁷, PARK Jae-Hoon^{5,6}, LEE Jun Hee⁴, LEE Jongseok³, OH Yoon Seok^{*1} (¹UNIST, ²School of Natural Science, UNIST, ³Department of Physics and Photon Science, GIST, ⁴Department of Energy Engineering, UNIST, ⁵Department of Physics, POSTECH, ⁶Max Planck POSTECH/Hsinchu Center for Complex Phase Materials, POSTECH, ⁷Pohang Accelerator Laboratory, POSTECH)

P1-co.114

Possible magnon excitation of pyrochlore iridate system in Raman study / NGUYEN Huyen Thi^{1,2}, SON Jaeseok^{1,2}, NOH Tae Won^{*1,2} (¹Center for Correlated Electron System, IBS, ²Department of Physics and Astronomy, Seoul National University)

P1-co.115

Probing magnetic excitations in $(\text{Ni}_{1-x}\text{Fe}_x)\text{PS}_3$ ($x=0, 0.3, 0.6, \text{ and } 0.81$) / LEE Seung-Yeol¹, CHOI Youngsu¹, PARK Jaena¹, SANKAR Raman², CHOI Kwang Yong^{*1} (¹Department of Physics, Chung-ang University, ²Physics Institute, Academia Sinica)

P1-co.116

Quantum spin liquid state in the Co-based triangular antiferromagnet $\text{Na}_2\text{BaCo}(\text{PO}_4)_2$ / LEE Suheon^{1,2}, LEE Chanhyeon¹, ZHONG R.³, CAVA R. J.³, CHOI Kwang Yong^{*1} (¹Department of Physics, Chung-ang University, ²ISIS Neutron and Muon Source, Rutherford Appleton Laboratory, ³Department of Chemistry, Princeton University)

P1-co.117

An ultra-high vacuum electron spin resonance spectrometer for the investigation of magnetic atoms and molecules on surfaces / YU Jisoo^{1,2}, COLAZZO Luciano^{1,2}, CHO Franklin Hyunil^{1,2}, JEONG Yejin^{1,2}, LIU Junjie⁴, ARDAVAN Arzhang⁴, BOERO Giovanni³, HEINRICH Andreas Johachim^{1,2}, DONATI Fabio^{*1,2} (¹Department of Physics, Ewha Womans University, ²Center for Quantum Nanoscience (QNS), Institute for Basic Science (IBS), ³Laboratory for Microsystems, Ecole Polytechnique Fédérale de Lausanne (EPFL), ⁴Department of Physics, The Clarendon Laboratory, University of Oxford)

P1-co.119

자화보상 스피넬산화물의 방사광 분광 연구 / 양민영¹, 성승호¹, 이은숙¹, KANG Jeongsoo^{*1} (¹Physics, The Catholic University of Korea)

P1-co.120

Modeling and Analysis of EM pump as Assistant Tool for the Circulation of LBE in the SMFBR / KWAK Jaesik^{*1}, KIM Hee Reyong¹ (¹School of Mechanical and Nuclear Engineering, UNIST)

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P1-co.201

Temperature dependent resistivity behavior of SrIrO₃ Films grown at different growth condition / LEE Doo Pyo², MAENG Jin Young³, SONG Jong Hyun^{*1,3} (¹Chungnam National University, ²Department of Physics, POSTECH, ³Department of Physics, Chungnam National University)

P1-co.202

Highly nonlinear magnetoelectric effect in antiferromagnetic Co₄Ta₂O₉ single crystals / OH Dong Gun¹, LEE Nara¹, CHOI Sungkyun^{2,3}, MOON Jae Young¹, KIM Jong Hyuk¹, SHIN Hyun Jun¹, SON Kwanghyo⁴, GUTMANN Matthias J.⁵, KIM Gideok², NUSS Jürgen², KIRYUKHIN Valery³, CHOI Young Jai^{*1} (¹Department of Physics, Yonsei University, ²Department of Quantum Materials, Max Planck Institute for Solid State Research, ³Department of Physics and Astronomy, Rutgers University, ⁴Department of Modern Magnetic Systems, Max Planck Institute for Intelligent Systems, ⁵Rutherford Appleton Laboratory, ISIS Facility)

P1-co.203

Determination of Ti K-edge absorption spectrum in an ultrathin BaTiO₃ film on a SrTiO₃ substrate using resonant x-ray reflectivity. / KIM Kooktae¹, KEE Jung Yun¹, CHOI YongSeong², SHIN YeongJae^{3,4,5}, NOH TaeWon^{3,4}, CHANG SeoHyoun⁶, LEE Dong Ryeol^{*1} (¹Department of Physics, Soongsil University, ²X-Ray Science Division, Advanced Photon source, ³Center for correlated electron systems, Institute for Basic Science, ⁴Department of Physics and Astronomy, Seoul National University, ⁵Department of Applied Physics, Yale University, ⁶Department of Physics, Chung-Ang University)

P1-co.204

Temperature-dependent Electronic Structures and Topological Properties of CeFe₂Al₁₀ / MIN Byung IL^{*1}, NAM Taesik¹, KANG Chang-Jong¹, RHYU Dong-Choon¹, KIM Junwon¹, KIM Kyoo¹ (¹POSTECH)

P1-co.205

Growth and ARPES measurement of monolayer VS₂ thin film / KIM Hyuk Jin¹, CHOI Byoung Ki¹, JOZWIAK Chris², BOSTWICK Aaron², ROTENBERG Eli², CHANG Young Jun^{*1} (¹Department of Physics, University of Seoul, ²Advanced Light Source (ALS), E. O. Lawrence Berkeley National Laboratory)

P1-co.206

Synthesis and characterization of ferroelectric properties in Aurivillius Bi₂WO₆ thin films grown by a pulsed laser deposition / JEONG Jihwan^{1,2}, DAS Saikat^{1,2}, MOON

Jun Sik^{2,3}, KIM Joeng Rae^{1,2}, PENG Wei^{1,2}, KIM Miyoung^{2,3}, NOH Tae Won^{*1,2} (¹Department of Physics and Astronomy, Seoul National University, ²Center for Correlated Electron Systems, CCES (IBS), ³Department of Materials Science and Engineering and Research Institute of Advanced Materials, Seoul National University)

P1-co.207

Stabilizing hidden room-temperature ferroelectricity via a metastable atomic distortion pattern / NOH Tae Won^{*1,2}, KIM Jeong Rae^{1,2}, LEE Daesu³ (¹Department of Physics and Astronomy, Seoul National University, ²Center for Correlated Electron Systems, IBS, ³Department of Physics, POSTECH)

P1-co.208

A study of NMR in CsH₂PO₄ at high temperatures / KIM Se Hun^{*1} (¹Jeju National University)

P1-co.209

Experimental Realization of Strain-induced Ferroelectricity in SrMnO₃ Films via Selective Oxygen Annealing / AN Hyunji¹, LEE Sanghan^{*1} (¹School of Materials Science and Engineering, GIST)

P1-co.210

Observation of electric field-induced intermediate phase of La-doped BiFeO₃ epitaxial thin film using in-situ X-ray diffraction / LEE Jun Young¹, UNITHRATTIL Sanjith¹, YEO Youngki², SEOL WooJun¹, JOH Hyun Jin¹, LEE Su Young³, YANG Chan-Ho², JO Ji Young^{*1} (¹School of Materials Science and Engineering, GIST, ²Department of Physics, KAIST, ³Pohang Accelerator Laboratory, Pohang University of Science and Technology)

P1-co.211

Tensile Strained Epitaxial Film on High Quality BaZrO₃ Single Crystal Substrates / PARK Daehwan¹, NGUYEN Xuan Duong², KIM Gye-Hyeon³, PARK Ki-bog¹, JEONG Hu Young⁴, SOHN Changhee^{1,3}, KIM Tae Heon^{*2}, OH Yoon Seok^{*1} (¹Department of Physics, UNIST, ²Department of Physics and Energy Harvest Storage Research Center, University of Ulsan, ³School of Natural Science, UNIST, ⁴UNIST Central Research Facilities, UNIST)

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P1-co.301

Temperature-dependent evolution of hysteretic characteristics in piezoelectric $\text{Bi}_{1/2}(\text{Na}_{0.82}\text{K}_{0.18})_{1/2}\text{TiO}_3$ thin films / JO Yong Jin^{1,2}, MUHAMMAD Sheeraz^{1,2}, LEE Myang Hwan³, SONG Tae Kwon³, KIM Ill Won^{1,2}, AHN Chang Won^{1,2}, KIM Tae Heon^{*1,2} (¹Department of Physics, University of Ulsan, ²Energy Harvest-Storage Research Center (EHSRC), University of Ulsan, ³School of Materials Science and Engineering, Changwon National University)

P1-co.302

Brillouin and Raman Spectroscopic Investigations of $\text{Pb}_x\text{Ba}_{1-x}\text{Nb}_2\text{O}_6$ / NAQVI Syed Furqan Ul Hassan¹, KO Jaehyeon^{*1} (¹School of Nano Convergence, Hallym University)

P1-co.303

Luminescence properties of valence conversion of Eu ions doped ABaPO_4 (A = Li, Na, and K) / JANG So Yeong¹, LEE YUN SANG^{*1} (¹Department of Physics, Soongsil University)

P1-co.304

Eu_2O_3 Sintering Aids Effects on the Dielectric Properties of Potassium Sodium Niobates Ceramics / JUN Byeong-Eog¹, CHOO Yeonsoo², HONG Wonki², CHO Minseok² (¹Department of Physics and Earth Science, Korea Science Academy, ²General Students, Korea Science Academy)

P1-co.306

High transverse piezoelectric coefficient of Mn-doped $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3$ thin films / NGUYEN Bich Thuy¹, WON Sung Sik², PARK Bong Chan¹, JO Yong Jin¹, AHN Chang Won¹, KIM Ill Won¹, KIM Tae Heon^{*1} (¹Department of Physics, University of Ulsan, ²School of Engineering, Brown University)

P1-co.307

Direct observation of electric field-induced ultrahigh piezoelectric strain in Sn-doped BaTiO_3 relaxor epitaxial thin film / KIM Tae Yeon¹, UNITHRATTIL Sanjith¹, ANOOP Gopinathan¹, LEE Jun Young¹, CHOI Wooseon², KIM Jaegyoo³, PARK Seong-Min¹, JOH Hyunjin¹, SEOL WooJun¹, CHOI JeOh¹, LEE Su Yong⁴, KIM Young-Min², HONG Seungbum³, JEONG Hu Young⁵, JO Ji Young^{*1} (¹School of Materials Science and Engineering, GIST, ²School of Energy Science, Sungkyunkwan University, ³School of Materials Science and Engineering, KAIST, ⁴Pohang Accelerator Laboratory, Pohang Accelerator Laboratory, ⁵School of Materials Science and Engineering, UNIST Central Research Facilities (UCRF) and UNIST)

P1-co.308

Structural and luminescent properties of Eu ion doped CaHfO₃ / LEE YUN SANG^{*1}, JANG So Yeong¹, WI Sangwon¹ (¹Department of Physics, Soongsil University)

P1-co.309

Doping-Site Dependence of Upconversion Emission of Ho³⁺ Ion in CaHfO₃ / LIM HYEONTAE¹, JANG SOYEONG¹, LEE SOJOENG¹, LEE YUN SANG^{*1} (¹Department of Physics, Soongsil University)

P1-co.310

Study on the emissions of Er³⁺ and Yb³⁺ co-doped SrZrO₃ nano-crystals under near-infrared and near-ultraviolet excitations / LIM HYEONTAE¹, LIM JUYOUNG¹, JANG SOYOUNG¹, LEE YUN SANG^{*1} (¹Department of Physics, Soongsil University)

P1-co.311

Realization of 6H-Hexagonal Polymorph in SrMnO₃ Ceramics by Al₂O₃ Doping / KIM Tae Heon^{*1}, MUHAMMAD Sheeraz¹, LEE Ho Jeong¹, AHN Chang Won¹ (¹Department of Physics, University of Ulsan)

P1-co.312

Highly ordered lead-free double perovskite halides by design / AHN Chang Won¹, JO Jae Hun¹, KIM Jong Chan², ULLAH Hamid³, RYU Sangkyun⁴, HWANG Young Hun⁵, CHOI Jin San¹, LEE Jongmin⁶, LEE Snaghan⁶, JEEN Hyounhjeen⁴, SHIN Young-Han³, JEONG Hu Young², KIM Ill Won¹, KIM Tae Heon^{*1} (¹Department of Physics, University of Ulsan, ²UNIST Central Research Facilities (UCRF) & School of Materials Science and Engineering, Ulsan National Institute of Science and Technology (UNIST), ³Multiscale Materials Modelling Laboratory, Department of Physics, University of Ulsan, ⁴Department of Physics, Pusan National University, ⁵School of Electrical and Electronics Engineering, Ulsan College, ⁶Gwangju Institute of Science and Technology (GIST), School of Materials Science and Engineering)

P1-co.313

Grain by grain analysis of structural changes in polycrystalline (1-x)BiFeO₃-xBaTiO₃ near MPB region / JUNG Youjin¹, WI Sangwon¹, CHUNG Jin Seok^{*1} (¹Dept. of Physics, Soongsil University)

P1-co.314

Schottky diodes using all perovskite oxides / JUNG Dae Ho¹, OH Ye Jin¹, PARK Woo Sung¹, LEE Ho Sun^{*1} (¹Applied Physics, Kyung Hee University)

P1-co.315

Ferroelectric Subloop Behavior of a Hf_{1-x}Zr_xO₂ thin film / LEE Kyu Cheol¹, CHAE Seung Chul^{*1} (¹Dept. of Physics Education, Seoul National University)

P1-co.316

비탄성 레이저 광산란 분광법을 이용한 타우린(Taurine, $C_2H_7NO_3S$) 단결정의 상전이 특성 연구 / KANG Donghoon¹, KO Jaehyeon¹, LEE Kwang Se² (¹School of Nano Convergence, Hallym University, ²Department of Nano Science & Engineering, Inje University)

P1-co.317

Electric Field Cycling-mediated Variations in Defect Distributions Associated with Split-up Behavior of a Ferroelectric Si-doped HfO_2 Thin Film / SONG Myeong Seop¹, NAMKUNG Jin¹, CHAE Seung Chul^{1*} (¹Dept. of Physics Education, Seoul National University)

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P1-nu.01**Simulation of silicon detector using TCAD / KIM BeomKyu¹, BOK JeongSu¹, CHO JaeYoon¹, KWON JiYeon¹, KWEON Min Jung^{*1} (¹Inha University)****P1-nu.02****Monte Carlo simulations of kQ factor of ionization chamber (PTW-30013) for proton beam absorbed dose measurement / JO Hyon-Suk^{*1}, 권용철¹, 이세병², 신옥근^{3,4} (¹Department of Physics, Kyungpook National University, ²국립암센터 양성자치료센터, ³연세대학교 방사선학과, ⁴Université Bordeaux 1)****P1-nu.03****Study of the jet fragmentation in high multiplicity pp and p-Pb collisions / RYU Jaehyeok^{*1}, LIM Sanghoon¹ (¹Department of Physics, Pusan National University)****P1-nu.04****Efficiency simulation and design of LaBr₃(Ce) gamma-ray detector array / JANG Youngseub¹, MOON Byul², LEE Jaehwan¹, KIM Jiseok¹, HONG Byungsik^{*1} (¹Department of Physics, Korea University, ²RI Physics Lab, RIKEN Nishina Center)****P1-nu.05****Development of a Technique for the Assessment of Radon Concentration / NTARISA Amos¹, ARYAL Pabitra¹, KIM Hong Joo^{*1} (¹Department of Physics, Kyungpook National University)****P1-nu.06****Properties of lifetime on Zircon using TR-OSL / HONG Duk Geun^{*1}, LEE Hyeok¹, RYOO Jiyeon¹, AN Jingil¹, BAK Yewon¹ (¹Department of Physics, Kangwon National University)****P1-nu.07****CLAS12 RICH calibration of DVCS data / JO Hyon-Suk^{*1}, 이성준¹ (¹Department of Physics, Kyungpook National University)****P1-nu.08****Design of cryogenic Gas Cather for KoBRA beamline / MOON Jun Young^{*1}, HASHIMOTO Takashi¹, SHIN Taeksu¹, LEE Jinho¹, MIYATAKE Hiroari², WADA Michiharu², ISHIYAMA Hironobu³ (¹Rare Isotope Science Project, Institute for Basic Science, ²WNOSC, High Energy Accelerator Research Organization, KEK, ³RNC, RIKEN)****P1-nu.09****Crystal growth and scintillation properties of ag doped sodium chloride for**

radiophotoluminescence dosimeter / CHO Jaeyoung¹, KIM Hong Joo¹, PARK Hyeoungwoo¹, KHAN Arshad¹ (¹Department of Physics, Kyungpook National University)

P1-nu.10

A study on the effects of various sample preparation conditions in accelerator mass spectrometry measurement / HA Yeong Su¹, CHO Yong-Sub¹, KIM Kye-Ryung¹, CHOE Kyumin¹ (¹Korea Multi-purpose Accelerator Complex (KOMAC), KAERI)

P1-nu.11

Study on the pulse shape discrimination of thallium-doped lithium iodide crystal / NGUYEN Luan Thanh¹, PHAN Vuong Quoc¹, KIM Hong Joo¹ (¹Department of Physics, Kyungpook National University)

P1-nu.12

Study of Pixelated Silicon Sensor with Junction Field Effect Transistor / KIM Jinyong¹, JEON Hyebin¹, KANG Kookhyun¹, LEE Hyeyoung², LEE Manwoo³, LEE Seungcheol¹, PARK Hwanbae¹ (¹Kyungpook National University, ²Center for Underground Physics, IBS, ³Medical Physics Research Center, DIRAMS)

P1-nu.13

Characterization of CVD diamond detectors as a thermal flux monitor at the KOMAC / LEE Pilsoo¹, DANG Jeong-Jeung¹, KIM Han-Sung¹, KWON Hyeok-Jung¹ (¹Korea Multi-purpose Accelerator Complex, KAERI)

P1-nu.14

Pure Crystal Growing and Research at Center for Underground Physics / KIM Yeongduk¹, KIM Dae Yeon¹, LEE Cheol Ho¹, SON Ju Kyung¹, RA Se Jin¹, SHIN Keon Ah¹, GILEVA Olga¹, CHOE Jun Seok¹, KANG Woon Gu¹, LEE Eun Kyung¹, LEE Moo Hyun¹, PARK Hyang Kyu², KIM Hong Joo³ (¹IBS Center for Underground Physics, IBS, ²Department of Accelerator Science, Korea University, ³Department of Physics, Kyungpook National University)

P1-nu.15

The Study on Muon Therapy / WOO Jong-Kwan², LIU Dong¹ (¹BK21+, Jeju National University, ²Department of Physics, Jeju National University)

P1-nu.16

Czochralski Growth and Characterization of Pr³⁺ Activated Li₆Y(BO₃)₃ Single Crystal / SAHA Sudipta¹, KIM Hong Joo¹, KHAN Arshad¹ (¹Kyungpook National University)

P1-nu.17

Study on the Improvement of Energy Resolution of Gamma-ray Spectrum through Electrical Noise Reduction of High Purity HPGe Detector / YOON Jungran¹, LEE Samyol^{2,3} (¹Dong-A University, ²Department of Radiological Science, Dongseo University, ³Center for Radiological Environment & Health Science, Dongseo University)

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P1-op.01

Elliptic polarization grating in PMMA doped with disperse orange 3 / WU Yang¹, CHOI Dong Soo², SHIM Hyun Kwan³, SEO Hyo Jin¹, KIM Sun Il^{*1} (¹Department of Physics, Pukyong National University, ²Department of Materials Physics, Dong-A University, ³Department of Chemistry, Pukyong National University)

P1-op.02

젤 물질을 첨가한 액정의 구동전압 및 반응속도 분석 / LEE SAEHEE¹, KIM Kyong Hon.^{*1} (¹Department of Physics, Inha University)

P1-op.03

Design of Neutron/X-ray CT imaging system based on linear electron accelerator / PARK Jae Yeon^{*1} (¹Radiation Research Division, KAERI)

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P1-pa.01**Relaxation of Higgs mass and dark matter** / LEE Hyun Min^{*1}, SONG Ji Seon¹, KANG Yoo Jin¹ (¹Department of Physics, Chung-Ang University)**P1-pa.02****Sommerfeld effects and dark matter in models with discrete symmetry** / KIM Seongsik¹, KANG Yoo-jin¹, LEE Hyun Min^{*1} (¹Department of Physics, Chung-Ang University)**P1-pa.03****Study of Carbon Nano Tube Electron Gun for X-ray Imaging of Human Breast Cancer** / YEON Yeong Heum^{*1}, LEE Jae Hyun¹, MUN Jung Ho¹, CHAE Moon Sik¹, LEE Byeong No¹ (¹Radiation Research Division, KAERI)**P1-pa.04****Study of reactor antineutrino detection efficiency with neutron captures on hydrogen at RENO** / KWON Eun Hyang^{*1,5}, 김우영², 박명렬³, 최준호³, 장한일⁴, 김상용⁵, 김수봉⁵, 서현관⁵, 이동하⁵, 이현기⁵, 김종건¹, 서지웅¹, 유인태¹, 전상훈¹, 정다운¹, 곽필준⁶, 김재률⁶, 문동호⁶, 서준후⁶, 신창동⁶, 임인택⁶, 주경광⁶, ZOHAI B Atif⁶, 장지승⁷, 유종희⁸, 양병수⁸, 주기원⁸, 유민상⁸, 윤석경⁸ (¹Department of Physics, Sungkyunkwan University, ²Department of Physics, Kyungpook National University, ³Department of Physics, Dongshin University, ⁴Department of Physics, Seoyeong University, ⁵Department of Physics, Seoul National University, ⁶Department of Physics, Chonnam National University, ⁷Department of Physics, GIST, ⁸Department of Physics, KAIST)**P1-pa.05****Design and simulation of superconducting coplanar waveguides using Sonnet™ software for the Axion dark matter experiments at Center for Axion and Precision Physics Research** / MIN Byeong Hun^{*1}, YOON Hojin², LEE Youngjae², AHN Moohyun¹, YANG Byeong Su¹, PARK Hee-Jun¹, YOO Jong Hee^{*1,2} (¹Center for Axion and Precision Physics Research, IBS, ²Department of Physics, KAIST)**P1-pa.06****Study for Fabrication Process of Metallic Magnetic Calorimeter(MMC)** / SONG JiWan^{1,2}, KIM HakSeong², KIM HongJoo^{*1}, LEE MinKyu² (¹Physics, Kyungpook National University, ²Quantum Device, KRISS)**P1-pa.07****Study of energy deconvolution algorithms at RENO** / YOON Seok-Gyeong¹, YOO Jonghee^{*1},

YANG Byeongsu¹, JU Kiwon¹, YU Minsang¹, JANG Jeeseung², LIM Intaek³, GWAK Piljun⁴, KIM Jaeyool⁴, MOON Dongho⁴, SEO Junhu⁴, SHIN Changdong⁴, JOO Kyungkwang⁴, JOHAAIB Atif⁴, KIM Jonggun⁵, SEO Jiwoong⁵, YU Intae⁵, JEON Sanghoon⁵, JUNG Daeun⁵, KWON Eunhyang⁶, KIM Sang yong⁶, KIM Soo-Bong⁶, SEO Hyunkwan⁶, LEE Dongha⁶, LEE Hyung⁶, JANG Hani⁷, PARK Myoung Youl⁸, CHOI Juneho⁸, KIM Wooyoung⁹ (¹Physics, KAIST, ²GIST College, GIST, ³Department of Physics Education, Chonnam National University, ⁴Department of Physics, Chonnam National University, ⁵Department of Physics, Sungkyunkwan University, ⁶Department of Physics and Astronomy, Seoul National University, ⁷Department of Fire Safety, Seoyeong University, ⁸Department of Radiology, Dongshin University, ⁹Department of Physics, Kyungpook National University)

P1-pa.08

Analytical Study with Multiple Channels in AMoRE Experiments / KIM HAN BEOM^{*1,3}, WOO Kyungrae^{1,2} (¹Center for Underground Physics, IBS, ²Institute for Basic Science, UST, ³Department of Physics and Astronomy, Seoul National University)

P1-pa.09

Status of stabilization heaters for the AMoRE double beta decay experiment / KIM HAN BEOM^{*1}, KIM Yong-Hamb^{2,3}, KWON Dohyung^{2,3} (¹Department of Physics and Astronomy, Seoul National University, ²Basic Science, UST, ³Center for Underground Physics, IBS)

P1-pa.10

An upgrade of muon veto detector in AMoRE-I / KIM Yeongduk^{*1,2}, KIM Wootae^{1,2}, LEE Jaison¹, HA Daehoon^{1,3}, BAE Hanwook^{1,3,4} (¹IBS Center for Underground Physics, IBS, ²IBS School, Department of Basic Science, UST, ³Department of Physics, Kyungpook National University, ⁴Department of Physics, Graduate School of Science, The University of Tokyo)

P1-pa.11

Super-Kamiokande Monte Carlo tuning with Korean light scattering measurement system / YANG JEONGYEOL^{*1}, JANG JEESEUNG², KIM JAEYOOL³, KIM SOO-BONG⁴, LIM INTAEK³, PARK RYEONG-GYUN³, YU INTAE⁴ (¹Physics and Astronomy, Seoul National University, ²Department of Physics, GIST, ³Department of Physics, Chonnam National University, ⁴Department of Physics, Sungkyunkwan University)

P1-pa.12

Development of Novel Silicon Photomultiplier Tube / ANJUM Faizan¹, SONG Jiwan¹, LEE Jik¹, KIM Hong Joo^{*1} (¹Department of Physics, Kyungpook National University)

P1-pa.13

Measurement of temperature-dependent responses of NaI(Tl) crystal detector for rare event searches / LEE Seo Hyun^{*1} (¹Basic Science, UST)

P1-pa.14

Development of a muon detector with extruded plastic scintillator and SiPM for AMoRE-II experiment / SEO Jeewon², KIM Wootae², KIM Yeongduk^{2,1}, LEE Hye Young¹, LEE Jaison¹, LEE Moo Hyun^{2,1}, YI Eung Seok³ (¹Center for Underground Physics (CUP), IBS, ²Basic

Science, University of Science and Technology (UST), ³Astronomy, Space Science and Geology, Chungnam National University (CNU))

P1-pa.15

Underground Rock Gamma Simulation for AMoRE / KIM Hong Joo^{*1}, HA Daehoon¹, JEON Eunju², ON Behalf of the AMoRE collaboration³ (¹Department of Physics, Kyungpook National University, ²Underground Physics, Institute for Basic Science, ³AMoRE, Collaboration)

P1-pa.16

A simulation study of neutron background in AMoRE-II / SEO Jeewon², LEE Moo Hyun^{*1,2}, JEON Eunju¹ (¹Center for Underground Physics (CUP), IBS, ²Basic Science, University of Science and Technology (UST))

P1-pa.17

Study of Gamma Background in a Gadolinium-loaded Liquid Scintillator with Monte Carlo Simulation / JOO Kyung Kwang^{*1}, SEO Jun Hu¹, SHIN Chang Dong¹, CHOI Ji Won¹ (¹Department of Physics, Chonnam National University)

P1-pa.18

Pulse Shape Discrimination using NEOS data with Deep learning / JEONG Yeonwoo^{*1} (¹Physics, Chung-ang University)

P1-pa.19

차세대 중성미자 검출기를 위한 물-기반 액체섬광검출용액 개발 연구 / KIM Byoung Chan^{*1}, 박현지², JOO Kyung Kwang^{*2} (¹Department of Oncology, Chonnam National University Hwasun Hospital, ²Department of Physics, Chonnam National University)

P1-pa.20

Study of Anti-Aging with a Polystyrene scintillator / WOO Jong-Kwan^{*1}, LIU Dong¹ (¹Department of Physics, Jeju National University)

P1-pa.21

Background Modeling for COSINE - 100 / YU Gyunho^{*1} (¹Physics, Sungkyunkwan University)

2020. 07. 13 Monday 14:00~15:00

Room: Poster Room

P1-pl.01

Propagation of Nonlinear Structures in a Nonextensive Plasma: Effects of Ion Temperature, Electron Trapping, and Kinematic Viscosity / KIM Tae Han^{1,2}, KIM Seung Shik², LEE Bo Wha¹ (¹Department of Physics, Hankuk University of Foreign Studies, ²Department of Plasma Theory & Simulation, Mirinae Research Lab.)

P1-pl.02

Mitigation of runaway electron by inverse Landau damping / KANG HYE LIN¹, LEE MIN UK², YUN GUNSU^{1,2} (¹Department of Physics, POSTECH, ²Division of Advanced Nuclear Engineering, POSTECH)

P1-pl.03

Oscillation of charged particles in uniform cold plasmas / KANG Teyoun¹, KYLYCHBEKOV Salizhan¹, HUR Min Sup^{*1} (¹Physics, UNIST)

P1-pl.04

Computational Observations of Nonlinear Double Layers in Multispecies Plasma with Massive Positive/Negative Ions / KIM Seung Shik¹, KIM Tae Han^{1,2} (¹Dept. of Plasma Theory and Simulation, Mirinae Research Lab., ²Dept. of Physics, Hankuk University of Foreign Studies)

P1-pl.05

방출광 측정에 기반한 메탄, 산소, 질소 혼합가스 화염의 회전온도 및 진동온도 측정 및 고찰 / KIM Jinwoo², GHIM Young-chul³, KYRITSIS Dimitrios⁴, CHOE Wonho^{*2,3} (¹KAIST, ²Department of Physics, KAIST, ³Nuclear and Quantum Engineering, KAIST, ⁴Department of Mechanical Engineering, Khalifa University)

P1-pl.06

The change of the solenoid frequency effect on the diocotron instability in AC magnetic fields / LEE Hae June^{*1}, CHEON Cheongbin¹, SHIN Jihyun¹ (¹Pusan National University)

P1-pl.07

레이저 유도 형광법을 이용한 헬륨 플라즈마의 충돌 전이 연구 / LEE Wonwook^{*2,1}, 심성용², 박진우², 오차환² (¹Research Institute of Natural Science, Hanyang University, ²Department of Physics, Hanyang University)

P1-pl.08

대기압 코로나 및 표면유전장벽 방전 플라즈마에서 전기풍 발생조건 탐색 및 플라즈마 특성 분석 / CHOE Wonho^{*1,2}, LEE Hyun Gyu², PARK Joo Young², PARK Sanghoo³, KIM Jinwoo² (¹KAIST, ²Department of Physics, KAIST, ³Plasma technology research center, NFRI)

P1-pl.09

100 W 이하 저전력 홀추력기의 방전모드 변화에 따른 이온빔 특성 연구 / LEE Dongho², KIM Holak³, DOH Guentae², KIM Youngho⁴, CHOE Wonho^{*1,2} (¹KAIST, ²Department of Physics, KAIST, ³Satellite Research Directorate, KARI, ⁴Space Exploration Engineering Program, Department of Aerospace, KAIST)

P1-pl.10

A possible Thomson scattering system for both atmospheric and vacuum plasma conditions / LEE Kiyong^{*1}, JANG Soo-ouk¹, CHO Chang-hyun¹, KIM Ji-hoon¹ (¹Fundamental Technology Research Division, NFRI)

P1-pl.11

A tendency of Electromagnetic field change in MHD Plasma Fluid Generator / LEE GeunHyeong^{*1}, KIM HeeReyoung¹ (¹Department of Nuclear Engineering, UNIST)

P1-pl.12

An Analysis on the Characteristics of Variables for Improving Plasma Conductivity in MHD Development / KANG Tae Uk^{*1} (¹Nuclear Engineering, UNIST)

P1-pl.13

Two-dimensional particle-in-cell simulation for the effect of the hollow-cathode showerhead on capacitively RF plasmas / PARK Heesung¹, KIM Jae Wan¹, LEE Hae June^{*1} (¹Pusan National University)

P1-pl.14

Global modeling of N₂/Ar and N₂/He discharges in the remote plasma source / LEE Hae June^{*1}, CHEON Cheongbin¹, SHIN Jihyun¹ (¹Pusan National University)

P1-pl.15

Plasma parameters measurement by analyzing bremsstrahlung continuum radiation in a helium plasma jet at atmospheric pressure / Tran Ngoc Tuyen¹, KIM Bumsoo¹, LEE Wonwook^{*1,2}, OH Cha-Hwan¹ (¹Department of Physics, Hanyang University, ²Research Institute of Natural Science, Hanyang University)

P1-pl.16

OH 분자의 스펙트럼을 이용한 헬륨 대기압 플라즈마 제트의 가스 온도 측정 / KIM Bumsoo¹, TRAN Tuyen Ngoc¹, LEE Wonwook^{*2,1}, OH Cha-Hwan¹ (¹Department of Physics, Hanyang University, ²Research Institute of Natural Science, Hanyang University)

P1-pl.17

Status of KSTAR Thomson Scattering Diagnostic System in 2019 KSTAR campaign /
LEE Jong Ha¹, KIM Ha Jin¹ (¹NFRI)

P1-pl.18

토카막 플라즈마 내 불순물 수송계수 도출을 위한 인공신경망 학습데이터 생성 알고리즘 개발 /
YOON Junhyeok^{2,3}, SONG Inwoo^{3,4}, HAN Yoonseong^{2,3}, SHIN Haewon^{2,3}, HWANG Junghoo^{2,3},
CHOE Wonho^{*2,3} (¹KAIST, ²원자력 및 양자공학과, KAIST, ³불순물 및 경계플라즈마 연구센터, KAIST, ⁴물리학과,
KAIST)

P1-pl.19

KSTAR 진공차외선(VUV) 분광 진단 시스템을 활용한 불순물 모니터링을 위한 후처리 프레임워크 개발
/ **CHOE Wonho^{*1,2}, SHIN Haewon^{1,2}, SONG Inwoo^{1,2}, AN YoungHwa³ (¹KAIST, ²KAIST, IERC, ³ITER**
한국사업단, NFRI)

P1-pl.20

제한된 시선의 분광계에서 토카막 플라즈마 비대칭 분포를 이용한 토모그래피 재구성 방법 개발 /
HAN Yoonseong^{1,3}, SONG Inwoo^{1,2}, CHOE Wonho^{*1,3} (¹KAIST, ²물리학과, KAIST, ³플라즈마 불순물 및 경계 열속
연구센터, KAIST)

P1-pl.21

KSTAR H-mode 플라즈마에서 D₂ 연료개스 주입에 의한 디버터 플라즈마 분리현상 실험 및 전산해석 /
HWANG Junghoo^{1,2}, PARK Jae-Sun³, PITTS Richard³, LEE Hyungho⁴, BAK Jun-Gyo⁴, JUHN June-
Woo⁴, JANG Juhyeok⁴, HONG Suk-Ho⁴, CHOE Wonho^{*1,2} (¹KAIST, ²불순물 및 경계플라즈마 연구센터,
KAIST, ³Science Division, ITER Organization, ⁴국가핵융합연구소, NFRI)

P1-pl.22

Measurement of Deuterium Transport Parameters in ITER-grade samples of Tungsten
and SS316LN / **BYEON Woo Jun¹, CHUNG Bo-Hyun², SEO H. J.¹, KIM H. S.¹, NOH S. J.^{*1,3}**
(¹Applied Physics, Dankook University, ²Physico-Technology Laboratory, Korea Accelerator and Plasma
Research Association, ³Physics, Dankook University)

P1-pl.23

Development of Automated Postprocessing System for ECEI Data / **KIM Dongkwon¹,**
LEE Jieun¹, CHOI Minjun Jhong², YUN GUNSU^{*1} (¹Department of Physics, POSTECH, ²KSTAR Research
Center, NFRI)

P1-pl.24

Effect of flow imbalance on the operational performance of the KSTAR PF1UL
magnets / **LEE Hyun Jung^{*1}, CHU Yong¹, KIM Kwang Pyo¹, KIM Jinsub¹, PARK Kaprai¹ (¹NFRI)**

P1-pl.25

Nonlinear MHD Study on the SPI induced Thermal Quench in KSTAR Hybrid Scenarios
/ **LEE Sang Jun¹, KIM Sang Kyeun¹, NA Yong Su^{*1} (¹Nuclear Engineering, Seoul National University)**

P1-pl.26

Design and Calibration of New Polychromators in KSTAR Thomson Scattering Diagnostic / KIM Hajin^{*1}, LEE Jong ha¹, YAMADA Ichihoro² (¹NFRI, ²Plasma Diagnostics, NIFS)

P1-pl.27

Edge-localized RF bursts in the KSTAR H-mode pedestal collapse / KIM Minho^{1,2}, YUN GUNSU^{*1}, THATIPAMULA Shekar Goud¹, LEE Jaehyun², CHOI Minjun², KIM Jayhyun², LEE Woochang² (¹Department of Physics, POSTECH, ²KSTAR Research Center, NFRI)

P1-pl.28

Line integrated density measurement based on refractometer / SEO Seong Heon^{*1}, HAN Kyu Sik² (¹NFRI, ²Nuclear Fusion Physical Engineering, UST)

P1-pl.29

KSTAR H-mode 플라즈마에서의 Heat flux width 연구 / KWON Kyu Been¹, LEE Hyung Ho², HUR Min Sup^{*1} (¹Physics, UNIST, ²Divertor System, NFRI)

P1-pl.30

SOLPS모델링을 통한 KSTAR Closed 형태 디버터 구조 효과 분석 / HUR Min Sup^{*1}, RA Ookjoo¹ (¹Physics, UNIST)

P1-pl.31

Progress on the Development of 2D Plasma/Neutral Transport Simulation System from Core to Wall in KSTAR / LEE J.G.¹, PARK J.M.², LEE C.Y.¹, LEE Y.H.³, NA Yong Su^{*1} (¹Nuclear Engineering, Seoul National University, ²Fusion Energy Division, Oak Ridge National Lab, ³Department of Advanced Plasma Physics, NFRI)

P1-pl.32

Development of multi-species ion module for gKPSP code / SEO Janghoon^{*1}, JHANG Hogun¹, KWON Jaemin¹ (¹Advanced Physics Research Division, NFRI)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-ap.102

Enhanced Photocatalytic Activity of the Cu₂O Photocathodes with Wavelength-Scale Particles / JANG Jae Won^{*1}, CHOI Jin-Hyun¹, RYU Jehyeok¹, PARK Ki Hong¹, JO Jung-Sik¹, HWANG Seongpil² (¹Department of physics, Pukyong National University, ²Department of Advanced Materials Chemistry, Korea University)

P2-ap.103

Raman spectroscopy of hBN/2H-MoTe₂ heterostructure / NGUYEN Hong Manh¹, LIM SooYeon¹, CHEONG Hyeonsik^{*1} (¹Department of Physics, Sogang University)

P2-ap.104

P-type WSe₂ field effect transistor using MoO₃ hole injection contact layer / KANG Dain¹, SEO Sunae^{*1}, KIM Taekwang¹, SHIN Somyoung¹, DU Hyewon¹, KIM Seonyeong¹, SONG Hyeon-Kyo¹, KIM Hansung¹ (¹Department of Physics, Sejong University)

P2-ap.105

Interlayer interaction in WSe₃/MoSe₂ heterostructure / LIM Soo Yeon¹, CHEONG Hyeonsik^{*1} (¹Department of Physics, Sogang University)

P2-ap.106

Hybrid Sensors of Single-walled Carbon Nanotubes and Salmon DNA for NO_x gas detection / YOO Sanghyun¹, BYUN Young Tae^{*1} (¹KIST)

P2-ap.107

Energy filtering effect of electron and phonon transfer in Al₂O₃ / ZnO super lattice film / LEE Sang-Kwon^{*1}, PARK No-Won¹, KANG Min-Sung¹, KIM Gil-Sung¹, CHOI Jae-Won¹ (¹Physics, Chung-ang University)

P2-ap.108

Comparison of RRAM devices manufactured using Tantalum and Titanium Oxide / JEONG Jae Hun^{1,2}, LEE Ga young^{1,2}, PARK Jun Hee^{1,2}, JANG Moon Gyu^{*1,2,3} (¹Hallym University, ²School of Nano Convergence Technology, Hallym University, ³Center of Nano Convergence Technology, Hallym University)

P2-ap.109

Self-Selective Non-Volatile Ferroelectric Memory Realized with Graphene Field

Effect Transistor / JUNG Sungchul¹, PARK Jinyoung², KIM Junhyung³, SONG Wonho², JO Jaehyeong², SHEERAZ Muhammad⁴, KIM Tae-Heon⁴, KANG Seok-Hyung⁵, PARK Kibog^{2,3} (¹EUUV Lithography Team, SK Hynix, ²Department of Physics, Ulsan National Institute of Science and Technology (UNIST), ³School of Electrical and Computer Engineering, Ulsan National Institute of Science and Technology (UNIST), ⁴Department of Physics and Energy Harvest-Storage Research Center (EHSRC), University of Ulsan, ⁵Department of Electrical Engineering, Pohang University of Science and Technology (POSTECH))

P2-ap.111

Direct Growth of Graphene by Chemical Vapor Deposition with CH₄ and CO₂ / KANG Dongwoon¹, SEO Yongho^{*1} (¹Sejong University)

P2-ap.112

The domain switching properties in the polycrystalline Si-doped HfO₂: Explanation to the negative capacitance / PARK Sanghyun¹, CHUN Min Chul¹, KIM Minjin¹, CHO Youngjun¹, KIM Cheoljun¹, KANG Bo Soo^{*1} (¹Department of Applied Physics, Hanyang University)

P2-ap.113

Improved switching characteristics of Ta₂O₅/TiO₂ multi-layer resistive-switching-based synaptic devices for neuromorphic system / CHO Yongjun¹, CHUN Min Chul¹, PARK Sanghyun¹, KIM Min Jin¹, KIM Cheoljun¹, KANG Bo Soo^{*1} (¹Department of Applied Physics, Hanyang University)

P2-ap.114

Variation of exciton energies in MoS₂/WSe₂ heterostructure / KIM Jungcheol¹, CHEONG Hyeonsik^{*1} (¹Department of Physics, Sogang University)

P2-ap.115

Optoelectronic Memory Based on Two-dimensional materials / LEE Yeonjae¹, SEO Yongho^{*1} (¹Sejong University)

P2-ap.116

Investigation of ferroelectric and antiferroelectric properties in Hf_{0.3}Zr_{0.7}O₂ capacitors / LEE Yeseul¹, LIM So Yeon¹, SONG M. S.², CHAE S. C.², PARK M. H.³, YANG Sang Mo^{*4} (¹Department of Physics, Sookmyung Women's University, ²Department of Physics Education, Seoul National University, ³School of Material Science and Engineering, Pusan National University, ⁴Department of Physics, Sogang University)

P2-ap.117

Investigation of temperature-dependent local conductance change in an epitaxial VO₂ film using conductive-atomic force microscopy / KIM Ahyoung¹, PARK Jung Hyun², LIM Soo Yeon³, CHUNG Jin-Seok², CHEONG Hyeonsik³, KO Changhyun¹, YOON Jong-Gul⁴, YANG Sang Mo^{*3} (¹Department of Physics, Sookmyung Women's University, ²Department of Physics, Soongsil University, ³Department of Physics, Sogang University, ⁴Department of Physics, The University of Suwon)

P2-ap.118

High response and low concentration H₂ gas sensors with p-type NiO nanoplates
/ LEE Gun Hee¹, NAKATE Umesh Tukaram¹, HONG Chang-Hee¹, SUH Eunkyung^{*1} (¹School of semiconductor and Chemical Engineering, Jeonbuk National University)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-ap.201

Optical Characteristics of SiO₂ Nanopillar Array Patterns on Si Wafers / CHOI Hyeji¹, KIM Eunah¹, SONG Jungeun¹, KWON Soyeong¹, KIM Bora¹, KIM Dong-Wook^{*1} (¹Department of Physics, Ewha Womans University)

P2-ap.202

Facile synthesis and UV blocking application of carbon dot derived from organic dye / HONG Woo Tae¹, YANG Hyun Kyoung^{*1,2}, MOON Byung Kee³, JE Jae-Yong⁴ (¹Interdisciplinary Program of LED Convergence, Pukyong National University, ²Department of Electrical, Electronics and Software Engineering, Pukyong National University, ³Department of Physics, Pukyong National University, ⁴Department of Radiological Technology, Dong Eui Institute of Technology)

P2-ap.203

Polarization-dependent asymmetric fatigue behavior in epitaxial BiFeO₃ capacitors / PARK Min Sun¹, LIM Soyeon¹, LEE Yesoul¹, KIM Jinkwon³, YANG Sang Mo^{*2} (¹Department of Physics, Sookmyung Women's University, ²Department of Physics, Sogang University, ³Department of Physics and Astronomy, CCES (IBS))

P2-ap.204

Improvement in the threshold voltage of both MoS₂ n-FET and MoTe₂ p-FET by charge transfer induced by organic molecules / CHO Yongjae¹, PARK Ji Hoon¹, IM Seong Il^{*1} (¹Dept. of Physics, Yonsei University)

P2-ap.205

Emission Wavelength and Decay Time Dependence of Nitrogen Capped Silicon Quantum Dots on Ligand properties / LEE Keun Wook¹, JOO Beom Soo¹, GU Minseon¹, HAN Moonsup^{*1} (¹Department of Physics, University of Seoul)

P2-ap.206

Switching kinetics in TiN/Zr-doped HfO₂/Al₂O₃/TiN structure with different dielectric layer thickness / KIM Min Jin¹, CHUN Min Chul¹, PARK Sanghyun¹, CHO Yongjun¹, KIM Cheoljun¹, KANG Bo Soo^{*1} (¹Department of Applied Physics, Hanyang University)

P2-ap.207

Interlayer vibration modes in few-layer 1T' and Td MoTe₂ studied by Raman Spectroscopy / CHEON Yeryun¹, KIM Kangwon¹, CHEONG Hyeonsik^{*1} (¹Department of Physics, Sogang University)

P2-ap.208

The Flexoelectric Effect in Flexible Bioinspired Nanogenerators Based on Nematic M13 Bacteriophages / YAN Yan², ABEN Dimaral², AMANGELDINOVA Yerkezhan², HWANG Yoon Hwae^{*1,2} (¹Department of Nanoenergy Engineering, Pusan National University, ²Department of Nanoconvergence Technology, Pusan National University)

P2-ap.209

Fluorinated polymeric sulfur for high efficient triboelectric energy harvesting / PARK Sang Hyeok¹, CHOI Jinhyeok¹, LEE Minbaek^{*1} (¹Department of Physics, Inha University)

P2-ap.210

NbS₂/n-MoS₂ van der Waals Schottky Junction for High Mobility Metal Semiconductor Field Effect Transistors / SHIN Hyung Gon¹, IM Seong Il^{*1} (¹Dept. of Physics, Yonsei University)

P2-ap.211

Self arrangement and diffusion of semiconducting quantum dots in display devices / KIM Hyunjung^{*1}, KIM Jaeseung¹ (¹Physics, Sogang University)

P2-ap.212

Artificial Perspiration Membrane by Programmed Deformation of Thermo-responsive Hydrogels / MOON Seung Eon^{*1}, KIM Junsoo¹, KIM Jeong Hun¹, IM Solyee¹, WOO Jiyong¹, IM Jong Pil¹, KIM Sang Moon² (¹ICT Creative Research Lab Emerging Materials Section, ETRI, ²Department of Mechanical Engineering, Incheon National University)

P2-ap.213

Ultrathin LiF for Dramatic Contact Resistance Reduction in MoS₂ Field Effect Transistors / CHO Hyunmin¹, PARK Ji Hoon¹, IM Seong Il^{*1} (¹Dept. of Physics, Yonsei University)

P2-ap.214

Analysis of Charge Diffusion in Al₂O₃-Au interlayer structure / LEE Minbaek^{*1}, LEE Jeongwan¹, PARK Jinhong¹ (¹Department of Physics, Inha University)

P2-ap.215

SiO_x Memristive Barristor Network Inspired by the Human Vision for Neuromorphic Computing / CHOI Sanghyeon¹, CHOI Jae-Wan¹, SHIN Jaeho¹, JANG Seonghoon¹, KIM Nam-Dong², KWAG Jeehyun³, WANG Gunuk^{*1} (¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Functional Composite Materials Research Center, KIST, ³Department of Brain and Cognitive Engineering, Korea University)

P2-ap.216

Novel fluorescent label based on GdVO₄:Bi³⁺, Eu³⁺ phosphors for latent fingerprint detection in forensic science / PARK Jin Young¹, HONG Woo Tae², CHUNG Jong Won¹, YANG Hyun Kyoung^{*1,2} (¹Department of Electrical, Electronics and Software Engineering, Pukyong National University, ²Interdisciplinary Program of LED Convergence, Pukyong National University)

P2-ap.217

열처리된 다공성 실리콘을 감지부로 이용한 정전식 센서의 진동수 응답과 습도감응 특성 / PARK Jongha¹, KIM Sohee¹, CHO Joonghyun¹, RYU Jiwook¹, HONG Sayong¹, KIM Yonggi¹, LEE Kiwon¹ (¹Department of Physics, Kongju National University)

P2-ap.218

Control of electronic structure via oxygen vacancies in Ta-based materials / HEO Jin Eun¹, HONG Seungbum², LEE Myoung-Jae³, SOMA Chattopadhyay⁴, TOMOHIRO Shibata⁵, BLANKA Magyari-Kope⁶, JAMES Kaduk A.⁷, KIM Jungho⁸, CHANG Seo Hyoung^{*1} (¹Department of Physics, Chung-ang University, ²Department of Materials Science and Engineering, KAIST, ³지능형소자융합연구소, DGIST, ⁴Engineering and Astronomy, Elgin Community College, ⁵Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, ⁶Department of Electrical Engineering, Stanford University, ⁷Chemistry Department, Illinois Institute of Technology, ⁸Advanced Photon Source, Argonne National Laboratory)

P2-ap.219

Electrical investigation of epitaxial C₆₀ layer on black phosphorus / KIM Kwanpyo^{*1}, YUN Taekeun¹, LEE Yangjin¹, YOON Jun-Yeong¹, JANG Jeongsu¹, KIM Min Je², MIN Hong Gi², CHO Jeong Ho² (¹Physics, Yonsei University, ²Chemical & Biomolecular Engineering, Yonsei University)

P2-ap.220

Reduced graphene oxide photodetector with excellent optoelectronic properties / KIM Hansung¹, SEO Sunae^{*1}, DU Hyewon¹, SHIN Somyeong¹, KIM Taekwang¹, KIM Seonyeong¹, SONG Hyeon-Kyo¹, KANG Dain¹ (¹Department of Physics, Sejong University)

P2-ap.221

Luminescence properties of LaTaO₄:Eu³⁺ phosphors for white LEDs applications / CHUNG Jong Won¹, PARK Jin Young¹, PARK Sung Jun², YANG Hyun Kyoung^{*1,2} (¹Department of Electrical, Electronics and Software Engineering, Pukyong National University, ²Interdisciplinary Graduate Program of Artificial Intelligence on Computer, Electronic and Mechanical Engineering, Pukyong National University)

P2-ap.222

Wafer-scale fabrication of cyclo-phenylalanine peptide nanowire based triboelectric energy generator / JO Euihyun¹, CHOI Jinhyeok¹, LEE Minbaek^{*1} (¹Department of Physics, Inha University)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-ap.301

MoS₂ Monolayers on Plasmonic Au Nanotriangle and Nanohole Arrays / SONG Jungeun¹, LEE Seong-Yeon², KWON Soyeong¹, KIM Eunah¹, KIM Bora¹, YEE Ki-ju², KIM Dong-Wook^{*1} (¹Department of Physics, Ewha Womans University, ²Department of Physics, Chungnam National University)

P2-ap.302

Domain structure of single layer ReS₂ / PARK Je Myoung¹, NA Woongki¹, CHOI Yun¹, CHEONG Hyeonsik^{*1} (¹Department of Physics, Sogang University)

P2-ap.303

Mechanical cleaning of 2D crystal using AFM / KIM Donggyu¹, JANG Myeongjin¹, JANG Jeongsu¹, LEE Yangjin¹, KIM Kwanpyo^{*1} (¹Physics, Yonsei University)

P2-ap.304

Raman enhancement in WS₂/ReS₂ heterostructure / NA Woongki¹, KWON Yongjae¹, CHEONG Hyeonsik^{*1} (¹Department of Physics, Sogang University)

P2-ap.305

Characterization of GeSe Nanoflakes Grown by Physical Vapor Deposition / JUNG Joong-eon¹, LEE Sol¹, GHOSH Arnab¹, JANG Myeongjin¹, JANG Jeongsu^{1,2}, KIM Kwanpyo^{*1} (¹Physics, Yonsei University, ²Physics, UNIST)

P2-ap.306

MagnetoPlasmonic reflectance sensor for measuring physical quantities / KIM Youngmi¹, LEE Jaebeom^{*1} (¹Chemistry, Chungnam National University)

P2-ap.308

Fabrication of Nano/Micro Grating Structures by Scanning Probe Lithography / JANG Jae Won^{*1}, JO Jeong-Sik¹, CHOI Jin-Hyun¹, PARK Ki Hong¹, RYU Jehyeok¹ (¹Department of Physics, Pukyong National University)

P2-ap.309

Cyan emitting carbon dot powders by using facile solvothermal method / PARK Sung Jun¹, YANG Hyun Kyoung^{*1,2}, MOON Byung Kee³, YI Soung Soo⁴ (¹Interdisciplinary Graduate Program of Artificial Intelligence on Computer, Electronic and Mechanical Engineering, Pukyong National University, ²Department of Electrical, Electronics and Software Engineering, Pukyong

National University, ³Department of Physics, Pukyong National University, ⁴Department of Electric Material Engineering, Silla University)

P2-ap.310

General Mode Quartz Tuning Fork Atomic Force Microscopy for Acquisition of Full Tip-Sample Dynamics / KIM Sung-hoon¹, KO Joon-hyuk¹, JHE Won Ho^{*1} (¹Seoul National University)

P2-ap.311

극저선량 이온빔 조사를 이용하여 제작된 단일 NV color center의 광학적 특성 연구 / SUK Jae Kwon^{*1}, HWANG Yong Seok¹, LEE Chan Young¹, JUNG Myung Hwan¹, JEON Hye Ran¹, YEO Sun Mok¹, LEE Jae Sang¹ (¹KOMAC, KAERI)

P2-ap.312

Identification of Superconducting Quantum Circuit with 8 Qubits with Single Measurement Line / HWANG Hyeok¹, CHOI JaeKyung¹, KIM Eunseong^{*1} (¹Department of Physics, KAIST)

P2-ap.313

Out-of-Plane Thermoelectric Characteristics of p-type Bi₂Te₃/Bi_{0.5}Sb_{1.5}Te₃ Superlattice Film / LEE Sang-Kwon^{*1}, CHOI Jae-Won¹, KIM Gil-Sung¹, PARK No-Won¹, LEE Won-Yong¹ (¹Physics, Chung-ang University)

P2-ap.314

Electrical and Thermoelectric Transport in MoS₂ by Indium metal Ohmic Contact / KWON Du Hyuk¹, SONG Jong Hyun^{*1}, BAE Myung Ho² (¹Chungnam National University, ²전자기표준센터, KRISS)

P2-ap.315

PbS 광전압 소자에서 광전류 과도현상(transient)의 입사광 세기 의존성 / OH Eunsoon^{*1}, NOH DaeGwon¹, AMPADU Emmanuel Kwame¹ (¹Department of Physics, Chungnam National University)

P2-ap.316

Transparent Two-dimensional Layered Double Hydroxide for Unipolar Switching Memory Application / CHO Haein¹, JEON Chan-Woo², PARK Il-Kyu², JANG Jingon¹, WANG Gunuk^{*1} (¹Korea University, KU-KIST Graduate School of Converging Science & Technology, ²Seoul National University of Science and Technology, Department of Materials Science and Engineering)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-as.01

Study on low-mass X-ray binaries source for SISA experiment / KIM Chanyeol¹, PARK IL Hung¹, HONG Gihan¹, LEE Kwangho¹, KIM Minhyo¹ (¹Physics, Sungkyunkwan University)

P2-as.02

Prediction of acceleration noise for the new gravitation wave experiment, SISA(Stellar Interferometer Space Antenna) / KIM Minhyo¹, PARK IL Hung¹, LEE Kwangho¹, HONG Gihan¹, KIM Chanyeol¹, WON Eunil² (¹Physics, Sungkyunkwan University, ²Physics, Korea University)

P2-as.03

A cosmic cloud system for the ISS-CREAM data analysis / JEGAL Jin¹, JEONG Dongwoo¹, KANG Sinchul¹, PARK Hyeoungwoo¹, CHOI Gwangho², KIM Munhwa³, SEO Eunsuk³, KIM Hong Joo¹ (¹Department of Physics, Kyungpook National University, ²Department of Physics, Sungkyunkwan University, ³Department of Physics, University of Maryland)

P2-as.04

The Camera System for the IceCube Upgrade / KANG Woosik¹, ROEILINGHOFF Gerrit¹, ROTT Carsten¹, TOENNIS Christoph¹ (¹Department of Physics, Sungkyunkwan University)

P2-as.05

Geant4 Monte-Carlo simulation studies for the ISS-CREAM Instrument / PARK Sedong¹, JEONG Dongwoo¹, KANG Sinchul¹, CHOI Gwangho³, SEO Eunsuk^{2,4}, WU Jayoung⁴, KIM Hong Joo¹ (¹Department of Physics, Kyungpook National University, ²Department of Physics, University of Maryland, ³Department of Physics, Sungkyunkwan University, ⁴Institute for Physical Science and Technology, University of Maryland)

P2-as.06

Generalized Uncertainty Principle with minimal momentum and White Dwarf / KIM Jae Yoon¹, CHUNG Won Sang¹, CHUNG Ki Soo¹ (¹Department of Physics, Gyeongsang National University)

P2-as.07

Phase-Space Analysis of Halos around Large-scale Filamentary Structures / JHEE Hannah¹, SONG Hyunmi², SMITH Rory³, SHIN Jihye³, PARK Inkyu¹ (¹University of Seoul, ²Department of Astronomy, Yonsei University, ³Galaxy Evolution Group, KASI)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-at.01**Optimization of loading rate in a magneto-optical trap using artificial neural network /** PARK Jeong Heon¹, KWON Ki Kyeong¹, CHO Dong Hyun^{*1} (¹Department of Physics, Korea University)**P2-at.02****⁷Li Stimulated Raman Sideband Cooling and Spectroscopy /** PARK Kyung Bin¹, LEE Hyun Gyung¹, ROH Seung Hwan¹, CHO Dong Hyun^{*1} (¹Department of Physics, Korea University)**P2-at.03****Annihilation of vortex clusters in a strongly interacting Fermi gas /** KO Bumsuk¹, LEE Kyuhwan¹, LEE YangHeon¹, PARK Jee Woo², SHIN Yong-il^{*1} (¹Department of Physics and Astronomy, Seoul National University, ²Department of Physics, POSTECH)**P2-at.04****High-precision force detection via quantum enhanced metrology using squeezed-light-driven cavity optomechanics /** LEE Jae hoon¹, LEE Chang-woo², SEOK Hyojun^{*2} (¹Division of Physical Metrology, KRISS, ²Department of Physics Education, Kongju National University)**P2-at.06****양자중력계용 외부공진기 다이오드 레이저의 주파수안정화 /** KWON Taeg Yong¹, 이상록^{1,2}, 박상연¹, 홍현규¹, 허명선¹, 문걸², 이상범^{*1} (¹Division of Physical Metrology, KRISS, ²Department of Physics, Chonnam National University)**P2-at.07****Characterization of ⁸⁷Rb-¹²⁹Xe/¹³¹Xe-N₂ atomic vapor cells via free induction decay measurements /** LEE Deok Young^{*1}, LEE Sangkyung¹, YIM Sin Hyuk¹, SHIM Kyumin¹ (¹Quantum Physics Technology Directorate, Agency for Defense Development)**P2-at.08****Stimulated emission of spin-correlated atom pairs from Bose-Einstein condensates /** 허준혁¹, 김경태¹, 허승정¹, 권기량¹, CHOI Jae Yoon^{*1} (¹Physics Department, KAIST)**P2-at.09****Optical wave guiding and spectral characteristics of micro/nanofiber /** IHN Yong Sup^{*1}, LEE Su-Yong¹, KIM Zaeill¹ (¹Quantum Physics Technology Center, Agency for Defense Development)

P2-at.10

Enhancing a sensitivity of target detection with N-photon entangled states / LEE Su Yong^{*1}, IHN Yong Sup¹, KIM Zaeill¹ (¹Quantum Physics Technology Directorate, Agency for Defense Development)

P2-at.11

Numerical simulation of entangled photon-pair generation via SPDC in periodically poled KTiOPO₄ crystal / KIM Junghyun¹, KIM Zaeill¹, IHN Yong Sup^{*1} (¹Quantum Physics Technology Center, Agency for Defense Development)

P2-at.12

Computational ghost imaging with turbid media / JO Yonggi¹, KIM Dongkyu¹, KIM Zaeill¹, LEE Sangkyung^{*1} (¹Quantum Physics Technology Center, Agency for Defense Development)

P2-at.13

광-마이크로파 양방향 변환을 위한 키텔모드 분석 연구 / KIM Dongkyu^{*1}, TAEK Jeong¹, KIM Duk Y¹, IHN Yong Sup¹, YIM Sin Hyuk¹, KIM Zaeill¹ (¹Quantum Physics Technology Center, Agency for Defense Development)

P2-at.14

A convex-roof measure of quantum non-Gaussianity based on quantum relative entropy / PARK Jiyong^{*1}, LEE Jaehak^{2,4}, BAEK Kyunghyun^{2,4}, JI Se-Wan³, NHA Hyunchul^{2,4} (¹School of Basic Sciences, Hanbat National University, ²Department of Physics, Texas A&M University at Qatar, ³National Security Research Institute, Electronics and Telecommunications Research Institute, ⁴School of Computational Sciences, Korea Institute for Advanced Study)

P2-at.15

Low-cost High-performance Diamond Nitrogen-Vacancy Spin Ensemble Magnetometer / SHIM Jeong Hyun^{*1,2}, OH Sangwon¹, KIM Kiwoong^{1,2}, HWANG Ju II³, LEE Kwang Geol³ (¹Ultralow Field Measurement Team, KRISS, ²Department of Medical Physics, University of Science and Technology, ³Department of Physics, Hanyang University)

P2-at.16

Stability of energy transfer in an opto-mechanical systems / LEU Loc Xuan^{*1} (¹Physics, Hanyang University)

P2-at.17

Quantum Simulations of Light Propagation through a Two-Dimensional Lattice of Cold Atoms / YOO SUNG-MI^{*1,2} (¹Department of Liberal Arts, Hongik University, ²Department of Physics, University of Connecticut)

P2-at.18

Implementation of exterior complex scaling as an absorbing boundary condition of solids affected by intense laser pulses / BYUN Chang woo¹, CHOI Nark Nyul¹, LEE Min-Ho^{*1} (¹School of Liberal Arts and Teacher Training, Kumoh National Institute of Technology)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-bp.01

Multi-site multi-color fiber photometry to record neural activity in freely behaving animals / JOO Bitna^{1,2}, LEE Ga-Young³, KOO Ja Wook^{1,2}, KIM Kipom^{*3} (¹Emotion, Cognitive, & Behavior Research Group, Korea Brain Research Institute, ²Department of Brain and Cognitive Sciences, Korea Brain Research Institute, ³Brain Research Core Facilities, Korea Brain Research Institute)

P2-bp.03

Optimization of culture of PLCL osteoblasts through electrical stimulation / LEE Dongkyu¹, LEE Wookul¹, LIM Eunju^{*1} (¹Dept. of Convergent Systems Engineering, Dankook University)

P2-bp.04

Nano-radiosensitizer delivery to mouse brain tumor models by gamma rays / LIM Sa Hoe^{*1}, CHOI Jin Myung¹, LIU Zhipeng¹, JUNG Shin¹ (¹Department of Neurosurgery, Chonnam National University Hospital)

P2-bp.06

Spontaneous Hinge-Bending Motions of Angiotensin I Converting Enzyme: Role in Activation and Inhibition / YI Myunggi^{*1}, JUNG Won-Kyo¹, PHAN Thi Tuong Vy² (¹Department of Biomedical Engineering, Pukyong National University, ²Institute of Research and Development, Duy Tan University)

P2-bp.07

Focused clamping of a single neuronal SNARE complex by complexin under high mechanical tension / SHON Min Ju¹, KIM Haesoo¹, YOON Tae-Young^{*1} (¹School of Biological Sciences and Institute for Molecular Biology and Genetics, Seoul National University, ²Seoul National University)

P2-bp.08

Constructing two-dimensional folding energy landscape of GPCR protein / YOON Tae-Young^{*1}, KIM Hyun Gyu¹, CHOI Hyun-Kyu^{1,2} (¹Seoul National University, ²Department of Physics, KAIST)

P2-bp.09

In-situ protein function monitoring at the single nucleus level / CHO Yeonmo¹, KIM Young³, KIM Byoung Choul³, LEE Jong-Bong^{*1,2} (¹Physics, POSTECH, ²School of Interdisciplinary Bioscience and Bioengineering, POSTECH, ³Division of Bioengineering, Major of Nano-Bioengineering, Incheon National University)

P2-bp.10

Combining MT and electrophysiology and its application to SNARE-mediated pore formation / YOON Tae-Young^{*2}, LEE Chanwoo² (¹Seoul National University, ²Department of Biological Sciences, Seoul National University)

P2-bp.11

Highly accurate sensing of endogenous miRNA / SONG Minseok¹, HOHNG Sungchul^{*1} (¹Seoul National University)

P2-bp.12

Fluctuation analysis of transcription in live mammalian cells / CHOI Hongyoung¹, PARK Hyeyoon^{*1} (¹Department of Physics and Astronomy, Seoul National University)

P2-bp.13

The role of beta-actin mRNA localization in single dendritic spines studied by two-photon glutamate uncaging / SHIM Jae Youn¹, LEE Byung Hun¹, MOON Hyungseok C.¹, PARK Hyeyoon^{*1} (¹Department of Physics and Astronomy, Seoul National University)

P2-bp.14

Transcription of Arc mRNA induced by electrical burst stimulation / KIM Dongwook¹, MOON Hyungseok¹, LEE Byung Hun¹, SHIM Jae Youn¹, PARK Hyeyoon^{*1} (¹Department of Physics and Astronomy, Seoul National University)

P2-bp.15

Imaging activity-dependent transcription of endogenous Arc mRNA in live mouse brain / LEE Byung Hun¹, SHIM Jae Youn¹, MOON Hyungseok Chad¹, KIM Jiwon², KIM Jinhyun², PARK Hyeyoon^{*1,3,4} (¹Department of Physics and Astronomy, Seoul National University, ²Center for Functional Connectomics, KIST, ³The Institute of Applied Physics, Seoul National University, ⁴The Institute of Molecular Biology and Genetics, Seoul National University)

P2-bp.16

Discovering novel cancer-specific PPI complex through single-molecule Co-IP / KIM TaeGyun^{1,2}, EUN Gee Sung^{1,2}, YOON Tae-Young^{*1,2} (¹Seoul National University, ²Department of Biological Sciences, Seoul National University)

P2-bp.17

Protein foci in live cells / SEOL Jincheol¹, LEE Jong-Bong^{*1,2} (¹School of Interdisciplinary Bioscience and Bioengineering, POSTECH, ²Physics, POSTECH)

P2-bp.18

Translational control of a specific gene by light-induced liquid-liquid phase separation / MOON Hyungseok C¹, LEE Min³, SHIN Yongdae^{2,3}, PARK Hyeyoon^{*1} (¹Department of Physics and Astronomy, Seoul National University, ²Department of Mechanical and Aerospace Engineering, Seoul National University, ³Interdisciplinary Program in Bioengineering, Seoul National University)

P2-bp.19

RNA polymerase diffuse on DNA via the hopping mechanism after intrinsic termination / KANG Wooyoung¹, KANG Changwon², HOHNG Sungchul^{*1} (1Seoul National University, 2Department of Biological Sciences, KAIST)

P2-bp.20

Single-molecule imaging of translation initiation / KIM Byungju¹, SEOL Jincheol¹, PARK Yeongkyoung^{2,3}, KIM Yoon Ki^{2,3}, LEE Jong-Bong^{*1,4} (1Physics, POSTECH, 2Creative Research Initiatives Center for Molecular Biology of Translation, Korea University, 3School of Life Sciences, Korea University, 4School of Interdisciplinary Bioscience and Bioengineering, POSTECH)

P2-bp.21

Coexistence of two independent mechanisms of Rho-dependent transcription termination / HOHNG Sungchul^{*1,2}, SONG Eunho^{1,2} (1Seoul National University, 2Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University)

P2-bp.22

A FRET-based barcode analysis for protein complex detection / KIM Hyunwoo^{1,4}, KIM Sung Hyun^{3,4}, YOON Tae-Young^{*3,4} (1Physics, KAIST, 2Seoul National University, 3Biological Sciences, Seoul National University, 4The Institute of Molecular Biology & Genetics, Seoul National University)

P2-bp.23

Single-molecule screening of mismatch recognition function of cells / YANG KeunSang², LEE Ryanggeun¹, LEE Jong-Bong^{*1,2} (1Physics, POSTECH, 2School of Interdisciplinary Bioscience and Bioengineering, POSTECH)

P2-bp.24

Single-molecule fluorescence imaging of DNA mismatch repair / YANG In-Ho¹, LEE Jong-Bong^{*1,2}, JIAQUAN Liu³, FISHEL Richard³, TAKAHASHI Masateru⁴, HANDAN Samir⁴ (1Physics, POSTECH, 2Interdisciplinary Bioscience and Bioengineering, POSTECH, 3Department of Physics, The Ohio State University, 4Department of Bioscience, King Abdullah University of Science and Technology)

P2-bp.25

The kinetic steps of hCHD7 comprise multiple substeps / KANG Chanshin¹, LEE Eunhye², SONG Ji-Joon², HOHNG Sungchul^{*1} (1Seoul National University, 2Department of Biological Sciences, KAIST)

P2-bp.26

Bending of D-shaped heterogeneous ring DNAs: the Euler-Kirchhoff theory and a FRET experiment / LIM Chan¹, LEE O-Chul¹, YEOU Sanghun¹, LEE Nam Ki², JEON Jae-Hyung^{*1} (1Department of Physics, POSTECH, 2Department of Chemistry, Seoul National University)

P2-bp.27

Color Tuning in the Orange Carotenoid Proteins (OCPs): Comparative modeling, MD, and Quantum Mechanical Studies / CHO Youngmoon¹, HAN Manhyuk^{1,2}, VILLAFANI Yvette Veronica³, KIM Seung Joong^{*1,2}, PARK Jiyong^{4,5}, PARK Younil³ (¹Physics, KAIST, ²Biological sciences, KAIST, ³Biological sciences, Chungnam National University, ⁴Center for Catalytic Hydrocarbon Functionalizations, IBS, ⁵Chemistry, KAIST)

P2-bp.28

Heterogeneity and non-Gaussianity in the active motion of intracellular particles in *Acanthamoeba castellanii* / JEON Jae-Hyung^{*1}, PARK Seongyu¹, LUKAT Nils², SELHUBER-UNKEL Christine² (¹Department of Physics, POSTECH, ²Institute for Materials Science, University of Kiel)

2020. 07. 14 Tuesday 14:00~15:00

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P2-co.101**Photoinduced topological phase transition and optical conductivity of black phosphorene** / MOON Kyungsun^{*1}, KANG Yousung¹ (¹Department of Physics, Yonsei University)**P2-co.102****탄성 변형에 의한 그래핀 양자점의 공명터널링** / SON Minso¹, MYOUNG Nojoon^{*1} (¹Department of Physics Education, Chosun University)**P2-co.103****Ultrafast dynamics of electron-phonon coupling in a metal** / JOO Hyunjeong¹, HWANG Choongyu^{*1}, ZHANG Wentao³, LANAZARA Alessandra² (¹Physics, Pusan National University, ²Materials Sciences Division, UC Berkeley, ³Physics and Astronomy, Shanghai JiaoTong University)**P2-co.104****Optimal Device Parameters for Multi-Layered WSe₂ Field-Effect Transistors** / MIN Keunhong^{1,2}, JUNG Suyong^{*1}, EOM Jonghwa^{*2}, SEO Sunae², KIM Seonyeong² (¹Quantum Technology Institute, KRISS, ²Department of Physics, Sejong University)**P2-co.106****2차원 전자계를 이용한 테슬라 밸브 구현 연구** / JUNG Hwan Chul¹, CHUNG Yun Chul^{*1} (¹Pusan National University)**P2-co.107****Structural analysis of an HCP-phase PdH nanoparticle using atomic electron tomography** / YANG Yongsoo^{*1}, JO Hyesung¹, HONG Jaeyoung², CHUN DongWon², LEE YoungSu³ (¹Department of Physics, KAIST, ²Advanced Analysis Center, KIST, ³Center for Energy Materials Research, KIST)**P2-co.108****Investigation about effects of depositing capping SrTiO₃ on LaAlO₃/SrTiO₃** / KWAK Yongsu¹, HAN Woojoo², LEE Joon Sung⁴, KIM Jinhee³, SONG Jong Hyun^{*1} (¹Chungnam National University, ²나노계측과학, University of science and technology, ³역학표준센터, Korea Research Institute of Standards and Science, ⁴디스플레이, 반도체물리학과, Korea University Sejong Campus)

P2-co.109

Chiroptical metasurface / JUYONG Gwak², LEE Jaebeom^{*1} (¹Chemistry, Chungnam National University, ²Biomaterials Science, Pusan National University)

P2-co.110

NMR 측정 데이터의 분석 알고리즘 개발 / PARK Sung kyun^{*1}, MIN Yi-Sum¹, PARK Jun Kue¹ (¹KOMAC, KAERI)

P2-co.111

Surface Wettability Change of Hydrophobic Polymers by Low Dose Irradiation of High-Energy Alpha Particles / LEE Eun Je^{*1}, KIM Jung Woo¹, KONG Young Bae¹ (¹Radiation Utilization and Management Division, KAERI)

P2-co.112

NMR spectroscopy for the massive 3D Dirac electron system / PARK Jun Kue^{*1}, KANG Do Hoon¹, PARK Sung Kyun¹, LEE Jae S.¹ (¹KAERI)

P2-co.113

1.7 MV 탄젠트 가속기를 이용한 ERD (Elastic Recoil Detection) 시스템 개발 및 박막 내 수소 분포 측정 실험 / KIM Kye-Ryung^{*1}, CHO Yong-Sub¹, KWON Hyeok-Jung¹, KIM Han-Sung¹, KANG Nam-Woo¹ (¹Korea Multi-purpose Accelerator Complex, KAERI)

P2-co.114

Progress in spatially-resolved tunneling spectroscopy of Andreev bound state in Josephson junction / PARK Sejin¹, JANG Seong¹, PARK Jinho¹, LEE Hu-Jong¹, LEE Gil-Ho^{*1} (¹Department of Physics, POSTECH)

P2-co.115

Structural Evolution of Ga doped PtNi Fuel-Cell Nanocatalysts during Load Cycles at 3D Atomic Scale / JEONG Chaehwa¹, LEE Sangjae², CHO Eunae², YANG Yongsoo^{*1} (¹Department of Physics, KAIST, ²Department of Materials Science and Engineering, KAIST)

P2-co.116

Ammonia borane를 이용한 h-BN(hexagonal boron nitride)의 성장과 NBVN defect에 대한 PL(Photoluminescence) FWHM의 layer dependence / AHN Chulwoo¹, KIM Wonjae¹, CHOI Minho¹, CHOI Jaewu^{*1} (¹Information Display, Kyung Hee University)

P2-co.117

Towards high-accuracy measurements of the thermoelectric effect in suspended Bi₂Se₃ epilayers grown by molecular beam epitaxy on GaAs(111)A / KIM Donguk¹, YANG Chanuk¹, LEE Joon Sue¹, PARK Yun Daniel^{*1} (¹Department of Physics and Astronomy, Seoul National University)

P2-co.118

Measuring Stretched length of the Nanoscale Water bridge on Mica and HOPG surface via Quartz Tuning Fork based Atomic Force Microscopy / SHIM Jaewon¹, AN Sangmin¹, JHE Won Ho^{*1} (¹Seoul National University)

P2-co.119

Quantitative analysis of the chiral plasmonic structure with nanoparticles. / LEE Dongkyu², LEE Jaebeom^{*1} (¹Chemistry, Chungnam National University, ²Cogno-mechatronics engineering, Pusan National University)

P2-co.120

Preparation of clean layered materials with various thicknesses for surface-sensitive techniques using a glove box and a suitcase / KIM Hyoung Kug¹, YOUN Taeseok¹, AHN Eun Su^{1,2}, KIM Jun Sung^{1,2}, KIM Tae-Hwan^{*1} (¹Physics, POSTECH, ²Center for Artificial Low Dimensional Electronic Systems, IBS)

P2-co.121

Doping of MoTe₂ using different gas under DUV light illumination / KO ByungMin¹, KHAN Muhammad Farooq¹, EOM Jonghwa^{*1} (¹Department of Physics & Astronomy, Sejong University)

P2-co.122

Towards realizing topological chiral 1D channel in high-quality bilayer graphene / LEE Gil-Ho^{*1}, JEONG Hyeonwoo¹, JEONG Gyuil², WATANABE Kenji³, TANIGUCHI Takashi³, KIM Zee-Hwan² (¹Department of Physics, POSTECH, ²Department of Chemistry, Seoul National University, ³Material Science, NIMS)

P2-co.123

Observation of reduced adhesion over metals using nanoscale laser-induced periodic surface structures / HUSSAIN Wajahat¹, KIM Yeongjun¹, JU Seoungmin¹, HWANG Taekyong², CHO Jongweon^{*1} (¹Department of Physics, Myongji University, ²Molds & Dies R&D Group, Korea Institute of Industrial Technology)

P2-co.124

High-field THz control over Berry's curvature of type-II Weyl semimetal WTe₂ / LEE Bumjoo^{2,1}, CHOI Hyunyoung², NOH Tae Won^{*2,1} (¹Center for Correlated Electron Systems, Institute for Basic Science, ²Department of Physics and Astronomy, Seoul National University)

P2-co.125

제일 원리를 통한 α -붕소 표면 위의 질소 원자와 분자 흡착 연구 / NA Yoon Su¹, JEONG Suk Min^{*1} (¹Department of Physics, Jeonbuk National University)

P2-co.126

First-principles Study of Graphene/Y₂C van der Waals Heterostructures / CHOI Chang-gyu¹, KIM Junghwan¹, HONG SukLyun^{*1} (¹Sejong University)

P2-co.127

Low-Energy Inverse Photoemission Spectroscopy and Ultraviolet Photoemission Spectroscopy of C₆₀ on CuPc / PARK Yongsup^{*1}, HONG Jong-Am¹, LEE Kyu-Myung¹, KIM Beom-Su¹, CHOI Ji-Woong¹ (¹Kyung Hee University)

P2-co.128

Electric field dependence of electronic structure in p-n junctions with 2D van der Waals heterostructures / HONG Suklyun^{*1}, KIM Junghwan¹ (¹Physics, Sejong University)

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Room: Poster Room

P2-co.201**Optical Properties of a Two-Dimensional GeTe Layer** / HONG Ji Sang¹, MARFOUA Brahim¹
(¹Physics, Pukyong National University)**P2-co.202****Two-dimensional graphitic carbon nitride (g-C₄N₃) for superior selectivity of multiple toxic gases (CO, NO₂, and NH₃)** / HONG Ji Sang¹, SUBHAN Fazle¹ (¹Physics, Pukyong National University)**P2-co.203****Boron-, Nitrogen-, Aluminum-, and Phosphorus-Doped Graphite Electrodes for Non-Lithium Ion Batteries** / JEON Taegon¹, JUNG Sung Chul¹ (¹Pukyong National University)**P2-co.204****First-Principles-Derived Effective Mass Approximation with Adaptive Mesh Refinement for the Quantum Nanostructures with Defect** / LEE Jun Seong¹, KIM Yong-Hoon¹ (¹School of Electrical Engineering, KAIST)**P2-co.205****Full-bands Continuum Model Study of Nearly Flat Bands in Rhombohedral Tetralayer Graphene on hBN (4LG/BN)** / PARK Youngju¹, JUNG Jeil¹ (¹Department of Physics, University of Seoul)**P2-co.206****Rashba-type splitting in two dimensional Tl₂S/Bi(111) heterostructure** / YUN Won Seok¹, HAN Sang Wook² (¹Division of Nanotechnology, Convergence Research Institute, DGIST, ²Department of Physics and EHSRC, University of Ulsan)**P2-co.207****Role of Atomic Behavior and Local Structure Characteristics Between Phase Transition Process in Ag- and In- Doped Sb Rich SbTe Material as Phase Change Memory : First Principle Study** / KWON Young-Kyun¹, PARK Hanjin¹, KIM Dasol², CHO Mann-Ho²
(¹Department of Physics, Kyung Hee University, ²Department of Physics, Yonsei University)**P2-co.208****First-principles study of defects in GeS** / CHOI Hyeongkyu¹, CHA Janghwan¹, HONG Suklyun¹ (¹Sejong University)

P2-co.209

A computational study of heteroepitaxial growth of GaN on the graphene/ Al_2O_3 substrate / [CHA Janghwan](#)¹, [HONG SukLyun](#)^{*1} (¹Sejong University)

P2-co.210

Structural Identification of Charge Density Wave Phases of Monolayer 1T-VSe₂ / [JUNG Jee-Ahn](#)¹, [KIM Hanchul](#)^{*2} (¹Department of Physics, Sookmyung Women's University, ²Department of Applied Physics, Sookmyung Women's University)

P2-co.211

First-principles calculation of O3-NaRhO₂ and its single oxide layer / [CHOI Minseok](#)^{*1}, [KIM Dohyung](#)¹ (¹Physics, Inha University)

P2-co.212

First-principles Prediction of Novel Two-Dimensional 1T-TiO₂ / [KIM Inseo](#)¹, [CHOI Minseok](#)^{*1} (¹Physics, Inha University)

P2-co.213

Quantum walk using 3D aluminum cavity and superconducting qubit coupling system / [CHOI JeaKyung](#)¹, [HWANG Hyeok](#)¹, [KIM Eunseong](#)^{*1} (¹Department of Physics, KAIST)

P2-co.214

Deep learning filter of tomographic 3D reconstruction in atomic electron tomography / [LEE Juhyeok](#)¹, [YANG Yongsoo](#)^{*1} (¹Department of Physics, KAIST)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-co.301

Robust surface state of SmB_6 protected against magnetic proximity effect probed by magneto-transport / SHIN Jeacheol¹, KIM Dohun¹, JANG Chaun² (¹Department of Physics and Astronomy, Seoul National University, ²Center for Spintronics, KIST)

P2-co.302

Strain chirality of chiral gold nanoparticle by Bragg coherent X-ray diffraction imaging / CHOI Sungwook¹, KIM Sungwon¹, KIM Jaeseung¹, IM Sangwon², SPRUNG Michael³, CHA Wonsuk⁴, HARDER Ross⁴, LEE SuYoung⁵, NAM Ki Tae², KIM Hyunjung¹ (¹Physics, Sogang University, ²Department of Materials Science and Engineering, Seoul National University, ³PETRA-III, Deutsches Elektronen-Synchrotron, ⁴Advanced Photon Source, Argonne National Laboratory, ⁵Pohang Accelerator Laboratory, Pohang Accelerator Laboratory)

P2-co.303

Direct Observation of Laser Triggered Interlayer Modulation of Bi_2Se_3 by X-ray Free Electron Laser Ultrafast Diffraction / KIM Sungwon¹, KIM Jeaseung¹, CHOI Sungwook¹, YUN Kyuseok¹, KIM Soo Yeon¹, KIM Hyo Jin², KIM Sunam³, EOM Intae³, OU Yunbo⁴, MOODERA Jagadeesh⁴, SONG Sanghoon⁵, CHEONG Hyeonsik¹, SIM Eunji², KOO Tae-Yeong³, KIM Hyunjung¹ (¹Physics, Sogang University, ²Chemistry, Yonsei University, ³Pohang Accelerator Laboratory, Pohang Accelerator Laboratory, ⁴Physics, MIT, ⁵LCLS, SLAC National Accelerator Laboratory)

P2-co.304

이종접합계면에서의 국소화를 이용한 자성의 전류제어에 대한 연구 / SEO Ji Won¹, CHOI Eui Yong¹, HONG Seok Hyeon¹, PARK Byeong Kook², PRELLIER Wilfred³, PARK Seung Young⁴, MIN Byeong Cheol⁵ (¹Department of Physics, Yonsei University, ²Department of Material Science, KAIST, ³CNRS, Caen, France, CNRS, ⁴Korean Basic Science Institute, KBSI, ⁵Korea Institute of Science and Technology, KIST)

P2-co.305

Synchrotron X-ray induced dewetting process of metal thin films / CHO JiHoon¹, OH Seongchan¹, KANG Hyon Chol¹ (¹Department of Materials Science and Engineering, Chosun University)

P2-co.306

Characterization of Non-Stoichiometric $\text{Ga}_2\text{O}_{3-x}$ Thin Films Grown by Radio-Frequency Powder Sputtering / CHA Su Yeon², KANG Hyon Chol¹ (¹Department of Materials Science and Engineering, Chosun University, ²Center for Advanced X-ray Science, GIST)

P2-co.307

Ionic transport in SnO₂ thin films by oxygen vacancy doping / HAM Daseul², KANG Hyon Chol^{*1} (¹Department of Materials Science and Engineering, Chosun University, ²PAL, POSTECH)

P2-co.308

Preferential growth characteristics and ferroelectric properties of epitaxial SrBi₂Nb₂O₉ thin films along the a-axis direction due to the misfit strains / KANG Myeongsin¹, LEE Eun Mi¹, SHIN Hyun Wook¹, SON Jong Yeog^{*1} (¹Department of Applied Physics, Kyung Hee University)

P2-co.309

Photoluminescence changes of graphene quantum dots in liquid crystal with phase transition / AN Yeong-Jin², LEE Jun-Yong², YU Jeongseon², KIM Jong Hyun^{*2} (¹Chungnam National University, ²Department of Physics, Chungnam National University)

P2-co.310

RIXS experiment near Ir L₃ edge about IrO₂ thin film on TiO₂ for resolving the energy conversion mechanism / LEE Kyeong Jun¹, CHO Byeong-Gwan², KIM Woo Jin^{3,4}, SONG Jeong Keun^{3,4}, LEE Chan Seok⁵, HEO Jin Eun¹, LEE Jun Hee⁵, NOH Tae Won^{3,4}, KOO Tae Yeong², KIM Jungho⁶, CHANG Seo Hyoung^{*1} (¹Department of Physics, Chung-ang University, ²Pohang Accelerator Laboratory, POSTECH, ³Department of Physics and Astronomy, Seoul National University, ⁴Center for Correlated Electron systems, Seoul National University, ⁵School of Energy and Chemical Engineering, UNIST, ⁶Advanced Photon Source, Argonne National Laboratory)

P2-co.311

고분해능 이미지 획득을 위한 Ptychography 및 Bragg CDI 연산 프로그램 / KIM Sang Woo^{*1}, LEE Su Yong¹, KIM Nam Dong¹, CHOI Hyeong Ju¹, KIM Hee Seob¹, SHIN Hyun Joon¹, LEE Woul Woo¹ (¹PLS-II Beamline division, Pohang Accelerator Laboratory)

P2-co.312

Raman spectroscopic study of relaxor phase evolution in lead free (Bi_{0.5}Na_{0.5-x}K_x)TiO₃ ceramics due to potassium ion substitution / BU Sang-Don^{*1}, CHO Sam Yeon¹, KIM Eun-Young¹ (¹Department of Physics, Jeonbuk National University)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-pa.01

Prospect study of heavy vector boson production via VBF process at the HL-LHC / KIM DongHee^{*1}, OH YoungDo^{*1}, LEE JeongEun^{*2}, TAE BongHo¹ (¹Department of Physics, Kyungpook National University, ²Department of Physics, Seoul National University)

P2-pa.02

Search for Z' bosons decaying into tau pairs in bottom fermion fusion process / LEE Jason Sang Hun^{*1}, PARK Inkyu¹, ROH Youn Jung¹, WATSON Ian James¹, KANG Dayoung¹ (¹Department of Physics, University of Seoul)

P2-pa.03

Study on Muon Simulation in Neutrino Detector Using Liquid Scintillation / JOO Kyung Kwang^{*1}, CHOI Ji Won¹, SHIN Chang Dong¹ (¹Department of Physics, Chonnam National University)

P2-pa.04

Study on jet energy resolution with dual-readout calorimeter / YOO Hwidong^{*1}, LEE Sehwook², LEE Junghyun², KO Sanghyun³, LEE Jason⁴, RYU Minsang⁴, WATSON Ian James⁴, LEE Yunjae⁴, KIM Minsoo¹, HWANG Kyuyeong¹ (¹Yonsei University, ²Department of Physics, Kyungpook National University, ³Department of Physics & Astronomy, Seoul National University, ⁴Department of Physics, University of Seoul)

P2-pa.05

Feasibility study on reconstruction of $B^0 \rightarrow 4\mu$ ons at BelleII experiment. / JOO Kyung Kwang^{*1}, KIM Dong Woon¹, KIM Ba ro¹ (¹Department of Physics, Chonnam National University)

P2-pa.06

Particle discrimination for the dual-readout calorimeter / LEE YunJae¹, LEE Jason Sang Hun^{*1}, YOO Hwidong², LEE Seh Wook³, KO Sanghyun⁴, HWANG Kyuyeong², KIM Minsoo², LEE Junghyun³, RYU Min Sang¹, WATSON Ian James¹, PARK JongSuk¹, KIM Jua¹ (¹Department of Physics, University of Seoul, ²Department of Physics, Yonsei University, ³Department of Physics, Kyungpook National University, ⁴Department of Physics, Seoul National University)

P2-pa.07

Study on the position resolution of the dual-readout calorimeter / YOO Hwidong^{*1}, KIM Minsoo¹, HWANG Kyuyeong¹, LEE Sehwook², LEE Junghyun², KO Sanghyun³, LEE Jason⁴, WATSON Ian James⁴, RYU Minsang⁴, LEE Yoonjae⁴ (¹Department of Physics, Yonsei University,

²Department of Physics, Kyungpook National University, ³Department of Physics & Astronomy, Seoul National University, ⁴Department of Physics, University of Seoul)

P2-pa.08

A simulation study of the Electroweak $Z_{\nu\nu}$ process with Machine Learning approach / KIM DongHee^{*1}, YANG YuChul¹, KIM JiWoong¹ (¹Department of Physics, Kyungpook National University)

P2-pa.09

Vts measurement in top pair production at 13 TeV / LEE Jason Sang Hun^{*1}, WATSON Ian James^{*1}, PARK Inkyu^{*1}, JANG Woojin¹, KIM Jeongwoo¹, HEO Jeewon¹ (¹Department of Physics, University of Seoul)

P2-pa.10

The New Low Level RF Control System for KAERI 20MeV Superconducting Accelerator / YU Inha^{*1}, CHUN Myunghwan¹, KIM Minwoo¹, YUN Jongcheol¹, CHO Woosung¹, PARK Kwanghyun³, KIM Yujong², LEE Seunghyun² (¹Pohang Accelerator Laboratory, ²Future Light Source R&D Team, KAERI, ³Research Lab., MKV Co.)

P2-pa.11

S-tagging using machine learning for the dileptonic channel at top-pair production / WATSON Ian James^{*1}, LEE Jason Sang Hun^{*1}, PARK Inkyu^{*1}, JANG Woojin¹, KIM Jeongwoo¹, HEO Jiwon¹ (¹University of Seoul)

P2-pa.12

Study of the Dark Matter at $e^+ e^-$ collider using MadGraph / PARK Kihong^{1,2}, CHO Kihyeon^{*1,2} (¹KISTI Campus, UST, ²KISTI Supercomputing Center, KISTI)

P2-pa.13

Monte Carlo study for searching $B^{0(+)} \rightarrow K_s^0(K^+)K_s^0\gamma$ in the Belle experiment / JEON Hyebin¹, KIM Hongjoo¹, KANG Kookhyun¹, LI Jin¹, LEE Seungcheol¹, PARK Hwanbae^{*1} (¹Kyungpook National University)

P2-pa.14

Muon Trigger using Neural Network accelerated by FPGAs / LEE Jason Sang Hun^{*1}, SON Youngwan¹, YANG Seungjin¹, KIM Seulgil¹ (¹Department of Physics, University of Seoul)

P2-pa.15

Search for Double Higgs Production at the CMS Phase2 Using Machine Learning / KIM Sangyeon^{*1} (¹Physics, Sungkyunkwan University)

P2-pa.16

Efficiency estimation using ^{252}Cf source at JSNS² / JUNG Da Eun^{*1}, JANG H I², KIM S B³, KWON E³, SEO H³, KIM J Y⁴, JOO K K⁴, LIM I T⁴, MOON D H⁴, SHIN C D⁴, KIM W⁵, CHEOUN

M K⁶, JEON H K¹, JEON Sanghoon¹, ROELLINGHOFF G¹, ROTT C¹, YU I¹, CHOI J H⁷, PAC M Y⁷, KIM E J⁸, JANG J S⁹, KANG S K¹⁰ (¹Physics, Sungkyunkwan University, ²Department of Fire Safety, Seoyeong University, ³Department of Physics and Astronomy, Seoul National University, ⁴Department of Physics, Chonnam National University, ⁵Department of Physics, Kyungpook National University, ⁶Cheoun Department of Physics, Soongsil University, ⁷Department of Radiology, Dongshin University, ⁸Division of Science Education, Physics Major, Chonbuk National University, ⁹GIST College, Gwangju Institute of Science and Technology, ¹⁰School of Liberal Arts, Seoul National University of Science and Technology)

P2-pa.17

LED run without LS in the JSNS² experiment / JEON Sanghoon¹, JANG H I², KIM S B³, KWON E³, SEO H³, KIM J Y⁴, JOO K K⁴, LIM I T⁴, MOON D H⁴, SHIN C D⁴, KIM W⁵, CHEOUN M K⁶, JEON H K¹, JUNG D E¹, ROELLINGHOFF G¹, ROTT C¹, YU I¹, CHOI J H⁷, PAC M Y⁷, KIM E J⁸, JANG J S⁹, KANG S K¹⁰ (¹Physics Department, Sungkyunkwan University, ²Department of Fire Safety, Seoyeong University, ³Department of Physics and Astronomy, Seoul National University, ⁴Department of Physics, Chonnam National University, ⁵Department of Physics, Kyungpook National University, ⁶Department of Physics, Soongsil University, ⁷Department of Radiology, Dongshin University, ⁸Division of Science Education, Physics Major, Chonbuk National University, ⁹GIST college, Gwangju Institute of Science and Technology, ¹⁰School of Liberal Arts, Seoul National University of Science and Technology)

P2-pa.18

Monitoring framework for Belle II experiment / PARK Seokhee¹, KIM Yongkyu¹, CHO Sungjin¹, KWON Youngjoon¹ (¹Physics, Yonsei University)

P2-pa.19

PMT gain calibration for the JSNS² Experiment / JEON Hyoungku¹, ROTT C¹, JANG H.I², KIM S.B³, KWON E¹, SEO H³, KIM J.Y⁴, JOO K.K⁴, LIM I.T⁴, MOON D.H⁴, SHIN C.D⁴, CHEOUN M.K⁵, JEON S.H¹, JUNG D.E¹, ROELLINGHOFF G¹, YU I.T¹, CHOI J.H⁶, PAC M.Y⁶, JANG J.S⁷, KANG S.K⁸ (¹Department of Physics, Sungkyunkwan University, ²Department of Physics, Seoyeong University, ³Department of Physics, Seoul National University, ⁴Department of Physics, Chonnam National University, ⁵Department of Physics, Soongsil University, ⁶Department of Radiology, Dongshin University, ⁷GIST College, GIST, ⁸School of Liberal Arts, Seoul National University of Science and Technology)

P2-pa.20

A simulation study of TOF detector in the GBAR experiment / LEE Hobin¹, LEE Byungchan¹, PARK Kwanhyeong¹, WON Donghwan¹, KIM Bongho¹, KIM Sunkee¹, KO Youngju², LEE Jaison² (¹Dept. of Physics and Astronomy, Seoul National University, ²Center for Underground Physics, IBS)

P2-pa.21

Study of position dependence of the Time-Of-Flight detector for the GBAR experiment / LEE Byungchan¹, KIM S. K.¹, KIM B. H.¹, PARK K. H.¹, WON D. H.¹, LEE H. B.¹, KO Y. J.², LEE J. S.² (¹Dept. of Physics and Astronomy, Seoul National University, ²Center for Underground Physics, IBS)

P2-pa.22

Dark photon search using B to Klll decay at Belle / KWON Youngjoon^{*1}, KIM Yongkyu¹
(¹Physics, Yonsei University)

P2-pa.23

Search for ALP through B → Ka (a → γγ) decay / CHO Sungjin¹, KWON Youngjoon^{*1}
(¹Physics, Yonsei University)

P2-pa.24

Search for B⁰ → l τ decays at Belle / KIM Kyungho¹, KWON Youngjoon^{*1} (¹Physics, Yonsei University)

P2-pa.25

Development of Photo-Diode for X-rays Detection / BAEK Jongmin¹, HWANG Sunmin², HYUN Hyojung², JEON Hyebin¹, KIM Seonghan², LEE Seungcheol¹, PARK Hwanbae^{*1}
(¹Kyungpook National University, ²Beamline Division, Pohang Accelerator Laboratory)

P2-pa.27

Searching for CP violation in hadronic D⁰ decays in the Belle II experiment / KIM Jaeyeon¹, KIM Doris Yangsoo^{*1} (¹Department of Physics, Soongsil University)

P2-pa.28

Track Reconstruction System in g-2/EDM Experiment at J-PARC / LEE Woodo^{*1}, WON EUNIL¹, CHOI SEONHO², YAMANAKA Takashi³, SATO Yutaro⁵, SUEHARA Taikan⁴, LEE Soohyung⁶, SUE Yuki⁷, SILVA Wilfrid Da⁸, MIBE Tsutomu¹⁰, YOSIOKA Tamaki⁴ (¹Physics Department, Korea University, ²Department of Physics, Seoul National University, ³Faculty of Arts and Sciences, Kyushu University, ⁴Department of Physics, Kyushu University, ⁵Graduate School of Science and Engineering, Ibaraki University, ⁶Center of Axion and Precision Physics Research, Institute of Basic Science, ⁷Department of Physics, Nagoya University, ⁸LPNHE, IN2P3, ⁹Research Center for Particle Physics, Kyushu University, ¹⁰Institute of Particle and Nuclear Studies(IPNS), High Energy Accelerator Research Organization, KEK)

P2-pa.29

Quality Control of GE1/1, ME0 and GE2/1 GEM chambers of the CMS / JEONG YongHo^{*1}
(¹Department of Physics, Sungkyunkwan University)

2020. 07. 14 Tuesday 14:00~15:00

Room: Poster Room

P2-pl.01

Calculation of the growth rate of the ablative Rayleigh-Taylor instability using radiation hydrodynamics codes / SHIN Sang Yun^{*1}, CHANG Eonho¹, HAHN Sang June¹ (¹Department of Physics, Chung-ang University)

P2-pl.02

Simulation Studies for THz Coherent Transition Radiation generated from multiple dielectric medium foils / ROH Kyungmin¹, LEE Seungwoo¹, SUK Hyyong^{*1} (¹Dept. of Physics and Photon Science, GIST)

P2-pl.03

Single-shot detection of the strong THz from coherent transition radiation(CTR) mechanism / KANG Keekon¹, JEN Vanessa Phung Ling¹, JEON Seongjin¹, SUK Hyyong^{*1} (¹Dept. of Physics and Photon Science, GIST)

P2-pl.04

Enhancement of the fringe visibility in femtosecond laser interferometry / LEE Hyeojeong¹, KIM Jinju¹, RHO Kyungmin¹, SUK Hyyong^{*1} (¹Dept. of Physics and Photon Science, GIST)

P2-pl.05

Investigation of atomic bonding of carbon under the high energy density conditions / CHO Byoung Ick^{*1,2}, KANG Gyeongbo^{1,2}, YANG Seong Hyeok^{1,2}, KIM Minju^{1,2}, SOHN Jang Hyeob^{1,2}, LEE Gysung^{1,2}, LEE Suhyeon^{1,2}, CHO Min Sang¹ (¹GIST, ²CoReLS, IBS)

P2-pl.06

Design study for the RAON LEBT section with 14.5 GHz ECR-IS / JIN Hyunchang^{*1}, JANG Ji-Ho¹, JEON Dong-O¹ (¹RISP, IBS)

P2-pl.07

레이저유도형광 진단법 및 전자방출 탐침을 이용한 비침습적 홀추력기 플라즈마 전위 분포 측정 / DOH Guentae¹, LEE Dongho¹, KIM Holak², KIM Youngho³, CHOE Wonho^{*1,4} (¹Department of Physics, KAIST, ²Satellite Research Directorate, KARI, ³Space Exploration Engineering Program, Department of Aerospace Engineering, KAIST, ⁴KAIST)

P2-pl.08

KOMAC 양성자 가속기 200 MeV 에너지 업그레이드를 위한 HWR 튜너 기초 설계 / CHO Yong Sub^{*1}, KWON Hyeok-Jung¹, JUNG Won-Hyeok¹, KIM Han-Sung¹ (*KOMAC, KAERI)

P2-pl.09

Beam Dynamics for beam commissioning of injector, SCL3, and KoBRA beam line / JANG Ji Ho^{*1}, JEON Dong-O¹, JIN Hyunchang¹ (*RISP, IBS)

P2-pl.10

전자가속기 기반 이동형 X-선 발생선원용 X-band 고주파 전자가속관 설계 / MUN Jungho^{*1}, CHAE Moonsik¹, LEE Jae Hyun¹, YEON Yeong Heum¹, LEE Byeongno¹, CHA Hyungki¹, LEE Nam Ho¹ (*KAERI)

P2-pl.11

Bunch compressor optimization with microbunching instability monitor / NAMKUNG Won^{*1}, KIM Changbum¹, KO Jun Ho¹, KIM Gyujin¹, KANG Heung-Sik¹, KO In Soo¹ (*Pohang Accelerator Laboratory)

P2-pl.12

Transverse Beam Emittance Measurement on KOMAC LEBT with Solenoid Scan / KIM DongHwan^{1,2}, DANG Jeongjeung², KWON Hyeok-Jung², LEE Seung-Hyun², KIM Han-Sung², CHUNG Kyoung-Jae¹, HWANG Yong-Seok¹ (*Department of Nuclear Engineering, Seoul National University, ²KAERI)

P2-pl.13

Design simulations of bunching section for X-band linac / LEE Jaehyun^{*1}, CHAE Moonsik¹, MUN Jungho¹, YEON YeongHeum¹, LEE Byeong-No¹ (*Radiation Research Division, KAERI)

P2-pl.14

Preliminary study of beam dynamics for 200 MeV energy upgrade of KOMAC proton linac / LEE Seunghyun^{*1}, KWON Hyeok-Jung¹, DANG Jeong-Jeung¹, KIM Han-Sung¹, CHO Yong-Sub¹ (*KOMAC, KAERI)

P2-pl.15

Metal beam current measurement depending on arc current and extraction voltage of the MEVVA ion source / LEE Seung Ho^{1,3}, CHO Yong-Sub^{2,3}, KIM Han Sung^{1,3}, KWON Hyeok-Jung^{1,3} (*Accelerator Development and Operation Division, KOMAC, KAERI, ²Nuclear Physics Application Research Division, KAERI, ³Department of Accelerator and Nuclear Fusion Physical Engineering, UST)

P2-pl.16

KOMAC 양성자가속기 200MeV 에너지 업그레이드를 위한 HWR Cryomodule 기초 설계 / KWON Hyeok-Jung^{*1}, JUNG Won-Hyeok¹, DANG Jeong-Jeung¹, LEE Seunghyun¹, KIM Han-Sung¹, CHO Yong-Sub¹ (*KOMAC, KAERI)

P2-pl.17

Electromagnetic design study on superconducting half-wave resonator for 200 MeV energy upgrade of KOMAC proton linac / DANG Jeongjeung^{*1}, KIM Hansung¹, LEE Seunghyun¹, KWON Hyeokjung¹, CHO Yongsub¹ (¹KOMAC, KAERI)

P2-pl.18

지구 저궤도 플라즈마 환경모사를 위한 링-커스프 자기장 기반의 플라즈마 발생장치 개발 및 플라즈마 특성 조사 / KIM Youngho¹, DOH Guentae², LEE Dongho², RYU Kwangsun³, CHOE Wonho^{*4} (¹Space Exploration Engineering Program, Department of Aerospace Engineering, KAIST, ²Department of Physics, KAIST, ³Satellite Technology Research Center, KAIST, ⁴KAIST)

P2-pl.19

중이온가속기의 RF Reference 시스템 설치 및 시험 / SEOL Kyungtae^{*1}, LEE Doyoon¹ (¹RISP, IBS)

P2-pl.20

중이온가속기 초전도 저에너지 선형가속기 운용을 위한 LRRF 개발 현황 / JANG Hyojae^{*1}, SEOL Kyungtae¹, CHOI Ohryong¹, SON Kitaek¹, LEE Doyoon¹ (¹IBS)

P2-pl.21

Construction of a In-situ Beam Intensity Monitoring System at KOMAC Proton Irradiation Facility / OH Eun Joo^{*1}, KIM Yu Mi¹, YUN Sang Pil¹, KIM Han Sung¹ (¹Accelerator Development and Operation Division, KAERI)

P2-pl.22

Test of an Electron Gun Assembly for LHCD 5-GHz Klystron / SONG W.J.², HWANG J.H.³, JANG S.D.⁴, PARK S.J.³, NAMKUNG W.¹, CHO M.H.^{1,2}, YUN GUNSU^{*1,2} (¹Department of Physics, POSTECH, ²Division of Advanced Nuclear Engineering, POSTECH, ³Mechanical Engineering Team, Pohang Accelerator Laboratory, ⁴Accelerator Engineering Team, Pohang Accelerator Laboratory)

P2-pl.23

Control of electron beam properties by using corrugated pipe at PAL-XFEL / SHIM Chi Hyun^{*1} (¹Accelerator Control Team, Pohang Accelerator Laboratory)

P2-pl.24

Reinstallation and Commissioning of RISP RFQ LINAC / PARK Bum Sik^{*1} (¹Rare Isotope Science Project, Institute for Basic Science)

P2-pl.25

Self-seeded Free electron laser at 14.4 keV / NAM Inhyuk^{*1}, MIN Chang-ki¹, CHO Myunghoon¹, LEE Jae Hyuk¹, KANG Heung-Sik¹ (¹PAL-XFEL, Pohang Accelerator Laboratory)

P2-pl.26

C-band 의료용가속기 제작을 위한 피어스형 전자총의 해석 및 설계 / YU Dong Ho^{*1}, CHA Sungsu¹, HYUN Seong-Yoon¹, PARK Sung-Ju² (¹Vitro NexTech, ²., Pohang Accelerator Laboratory)

P2-pl.27

15 MeV급 전자가속기 기반 중성자, X-선 동시 발생 연구 / CHAE MOONSIK^{*1}, MOON Jungho¹, YEON Yeonghum¹, LEE Jaehyun¹, OH Kyungmin¹, PARK Jaeyeon¹, PARK Jinhyeong¹, LEE Byeongno¹ (¹Radiation Research Division, KAERI)

P2-pl.28

주입 잠금에 의한 상용 S-Band 마그네트론 위상 및 주파수 안정화 / HAN Seong Tae^{*1,2}, KIM Jong Soo¹, KIM Dokyun^{1,2}, YANG Jong Ryul³ (¹Electrophysics Research Center, KERI, ²에너지변환공학, UST, ³영남대 전자공학)

P2-pl.29

Development of 2D Cylindrical Numerical Code for high energy density plasmas of X-pinch Plasmas / LEE S. J.¹, NA Yong-Su^{*1}, KIM Deok-Kyu² (¹Department of Nuclear Engineering, Seoul National University, ²Agency for Defense Development, Daejeon)

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P2-se.01

Plasma engineered monolayer MoS₂ for an efficient hydrogen evolution reaction electrocatalyst / PARK JongWoo¹, KIM YongSoo^{*1}, NGUYEN Duc Anh¹, LE Tam Chinh¹, KIM SungDo¹ (¹Semiconductor Device/Physics Department, University of Ulsan, ²Energy Harvest Storage Research Center)

P2-se.02

CuCo₂O₄ 나노 구조의 합성 및 슈퍼커패시터에 대한 전기 화학적 특성 / ANKI Reddy Mule¹, SK. Khaja Hussain¹, B. N. Vamsi Krishna¹, YU Jae Su^{*1} (¹Department of Electronic Engineering, Kyung Hee University)

P2-se.03

Dibenzo[b,f][1,5]diazocine Organic Semiconductors for an Efficient Photo Electrochemical Water Splitting / SISSEMBAYEVA Yana², CHO Soo Kyung³, HWANG Yoon Hwa^{*1,2,3} (¹Department of Nanoenergy Engineering, Pusan National University, ²Department of Nanoconvergence Technology, Pusan National University, ³Division of BK21 PLUS Nanoconvergence Technology, Pusan National University)

P2-se.04

LiTaO₃ 기반의 압전 나노 제너레이터의 제작 및 특성 분석 / MANCHI Punnarao¹, GRAHAM Sontyana Adonijah¹, PATNAM Harishkumarreddy¹, YU Jae Su^{*1} (¹Department of Electronic Engineering, Kyung Hee University)

P2-se.05

유기물 반도체 TMTSF의 전하 수송 특성 / BAE Junwan¹, LEE In Jae^{*1} (¹Department of Physics, Chonbuk National University)

P2-se.06

THz electromagnetic wave generation via AC phonon-electron interaction / PARK Sang-Hyuk¹, LEE Sehyuk¹, KEE Chul-Sik², ISHIOKA Kunie³, VOLZ Kerstin⁴, STANTON Christopher J.⁵, JHO Young Dahl^{*1} (¹School of Electrical and Computer Engineering, GIST, ²Advanced Photonics Research Institute, GIST, ³Research Center for Advanced Measurement and Characterization, National Institute for Materials Science, ⁴Material Sciences Center and Faculty of Physics, Philipps University, ⁵Department of Physics, University of Florida)

P2-se.07

Influence of residual sodium at the interface of a NaCl-assisted CVD grown

large-scale MoS₂ monolayer on SiO₂/Si substrate / HAN Sang Wook^{*1}, YUN Won Seok², WOO Whang Je³, KIM Hyungjun³, PARK Jusang³, HWANG Young Hun⁴, NGUYEN Tri Khoa¹, LE C. T.¹, KIM Yong Soo¹, KANG Manil⁵, AHN Chang Won¹, HONG S. C.¹ (¹Basic Science Research Institute, University of Ulsan, ²Convergence Research Institute, DGIST, ³School of Electrical and Electronic Engineering, Yonsei University, ⁴Electricity & Electronics and Semiconductor Applications, Ulsan College, ⁵Department of Physics, Kongju National University)

P2-se.08

The ballistic conductance of Dirac Electrons through Magnetic Quantum Rings / KIM Namme^{*1}, PARK Dae Han¹, YOU Su Jeong¹, KIM Heesang¹ (¹Physics, Soongsil University)

P2-se.09

Improvement of Quantum Efficiency of UV light via Quantum Dots Si CMOS Image Sensor: Application in Our Lives / PARK Jeagun^{*1}, JOUNG Wooyoon², CHOI Jiho³, PARK Junseong³, KIM Ilhwan³ (¹Hanyang University, ²Department of Nanoscale Semiconductor Engineering, Hanyang University, ³Department of Electronic and Computer Engineering, Hanyang University)

P2-se.10

수소 열 어닐링을 통해 인위적으로 산소 결함이 생성된 다층 α-MoO_(3-x)의 전자 이동도 향상 및 전계 효과 유도 / YOO Dahui¹, SEO Seunghee¹, YUN Yoojoo¹, HEO Yun Seok¹, JEEN Hyoungjeen¹, KANG Haeyong^{*1} (¹Department of Physics, Pusan National University)

P2-se.11

The development of statistical uniformity and reliability of artificial synaptic device for neuromorphic system / JANG Jingon¹, CHOI Sanghyeon¹, JANG Seonghoon¹, HAM Seonggil¹, WANG Gunuk^{*1} (¹KU-KIST Graduate School of Converging Science and Technology, Korea University)

P2-se.12

Two-dimensional optoelectronic devices based on organic ferroelectric polymer / YOO Kyung-Hwa^{*1}, LEE Changjun¹, PARK Myung-Uk¹, KIM SungHyun¹, KIM Myeongjin¹ (¹Department of Physics, Yonsei University)

P2-se.13

Effects of Iodine Doping on Electrical Characteristics of Solution-Processed Indium Oxide Thin-Film Transistors / CHOI Ji-Hoon¹, LEE Hyeonju¹, BAANG Sungkeun¹, PARK Jaehoon^{*1} (¹Department of Electronic Engineering, Hallym University)

P2-se.14

The effects of the intrinsic layer on the performance of GaN-based PIN avalanche photodiodes / JEON Seong Ran^{*1}, LEE SeungJae¹, SONG YoungHo¹ (¹KOPTI)

P2-se.15

Forming Free and Self-rectifying Resistive-switching Memory Based ON Al_2O_3 /AZO Bi-layer / SONG Hyeon-Kyo¹, SEO Sunae^{*1}, LEE Myoung-jae², KIM Taekwang¹, SHIN Somyoung¹, DU Hyewon¹, KIM Seonyeong¹, KANG Dain¹, KIM Hansung¹ (¹Department of Physics, Sejong University, ²Division of Nanotechnology, DGIST)

P2-se.16

Polarization-charge inversion at ultrathin high-k/GaN interfaces through a post-deposition annealing / NA Woongbu¹, JO Chae Won¹, LEE Jeong-Ah¹, KIM Kwangeun^{*1} (¹Electronic and Electrical Convergence Engineering, Hongik University, Sejong)

P2-se.17

Improved performance of GaN electronic components with ultraviolet/ozone-produced Ga_2O_x interfaces / NA Woongbu¹, LEE Jeong-Ah¹, JO Chae Won¹, KIM Kwangeun^{*1} (¹Electronic and Electrical Convergence Engineering, Hongik University)

P2-se.18

Angle-resolved photoemission spectroscopy study of electronic structure of epitaxial GaN thin flim / KIM MinJay¹, LEE InHak¹, KIM HyukJin¹, CHOI ByoungKi¹, CHANG Young Jun^{*1} (¹Department of Physics, University of Seoul)

P2-se.19

양성자 조사 조건에 따른 AlGaN/GaN on Sapphire의 결합 분석 연구 / KIM Dong-Seok^{*1}, 박준규¹, 윤영준¹, 여순목¹, 이재상¹, 김정길², 이정희² (¹Korea Multi-purpose Accelerator Complex, KAERI, ²School of Electronics Engineering, Kyungpook National University)

P2-se.20

Topological characteristics of Bi thin films grown on the MoS_2 surface / HAN Sang Wook^{*1}, LEE Eunsook², SEONG Seungho², KANG J.-S.², YUN Won Seok³, HONG Soon Cheol¹ (¹Basic science research institute, University of Ulsan, ²Department of Physics, The Catholic University of Korea, ³Convergence Research Institute, DGIST)

P2-se.21

Cu를 도핑한 ZnSe 양자점 제작 및 도핑 농도에 따른 광학적 특성 분석 / KIM Ju Seok¹, KIM Sung Hun¹, LEE Hong Seok^{*1} (¹Department of Physics, Jeonbuk National University)

P2-se.22

Growth mechanism and optical properties of CsPbBr_3 perovskite quantum dots / KIM Sung Hun¹, LEE Hong Seok^{*1} (¹Department of Physics, Jeonbuk National University)

P2-se.23

Brightening of dark exciton via residual interface strain in monolayer WSe_2 on SiO_2 /Si substrate / 황병천¹, 황형용¹, HOSSEN Raqibul¹, ULLAH Farman², 김용수², JHO Young Dahl^{*1} (¹School of Electrical and Computer Engineering, GIST, ²Department of physics, University of Ulsan)

P2-se.24

Luminescence manipulation via external shear strain in monolayer transition metal dichalcogenides / 황형용¹, 황병천¹, ULLAH Farman², 김용수², 이규환³, 김용훈³, JHO Young Dahl^{*1} (¹School of Electrical and Computer Engineering, GIST, ²Department of Physics, University of Ulsan, ³School of Electrical Engineering and Graduate School of EEWS, KAIST)

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Effect of surrounding materials on photoluminescence of WSe₂ monolayer / YEE Ki Ju^{*1}, LEE SEONG YEON¹ (¹Department of Physics, Chungnam National University)

P2-se.26

Distinguished electrical behavior in variable two-dimensional materials / GWON Oh Hun¹, KIM Jong-Yun¹, KANG Seok-Ju¹, YU Young-Jun^{*1} (¹Department of Physics, Chungnam National University)

P2-se.27

Measurement of anisotropic refractive index of Black Phosphorus / JEON Seong Joon¹, LEE Seong-Yeon¹, YEE Ki Ju^{*1} (¹Department of Physics, Chungnam National University)

P2-se.28

Ellipsometric Characterization of Monolayer WS₂ from 41 to 300K / NGUYEN Hoang Tung¹, KIM Tae Jung¹, LE Van Long¹, NGUYEN Xuan Au¹, KIM Young Dong^{*1} (¹Dept. of Physics, Kyung Hee University)

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Surface Potential and Transport Studies of MoS₂/WS₂ and WS₂/MoS₂ Heterostructures / KIM Bora¹, TSAI Po-Cheng², KWON Soyeong¹, SONG Jungeun¹, KIM Eunah¹, LIN Shih-Yen², KIM Dong-Wook^{*1} (¹Department of Physics, Ewha Womans University, ²Research Center for Applied Sciences, Academia Sinica, Taiwan)

P2-se.30

Structural and Spectroscopic Properties of Hexagonal CdS (h-CdS) Thin Films / LEE Jongwon^{*2}, KIM Daejung¹ (¹Department of New Materials Engineering, Hanbat National University, ²School of Basic Science, Hanbat National University)

P2-se.31

금속화합물 첨가에 의한 Ga₂O₃ 박막의 결정성 및 전기적 전도성 변화 / KIM Soyeon¹, LEE Hansol¹, AHN Hyungsoo¹, YANG MIN^{*1} (¹Korea Maritime and Ocean University)

P2-se.32

상 변이 메커니즘을 이용한 고품질 β-Ga₂O₃ 박막의 형성 및 전기전도도 제어 / LEE Hansol¹, KIM Soyeon¹, AHN Hyungsoo¹, YANG MIN^{*1} (¹Korea Maritime and Ocean University)

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Extraordinary Suppression of Thermal Conductivity in Wedge-like Phonon Cavity Structure Based on Wave Nature of Phonons / LEE Hun¹, JEONG Do-Gyeong², JU Hwi In², SONG Jin Dong³, LEE Jong Seok², JHO Young Dahl^{1*} (¹School of Electrical and Computer Engineering, GIST, ²Department of Physics and Photon Science, GIST, ³Center for Opto-electronic Materials and Devices, KIST)

P2-se.34

Detection of Thermally Significant THz Acoustic Phonon / LEE Sehyuk¹, JEONG Hoonil¹, LEE Hun¹, MINNICH Austin J², JEON Seong-Ran³, CHUNG Tae-Hoon³, STANTON Christopher J⁴, JHO Young Dahl^{1*} (¹School of Electrical and Computer Engineering, GIST, ²Division of Engineering and Applied Science, Caltech, ³LED Research and Business Division, KOPTI, ⁴Department of Physics, UF)

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분광타원계, 반사계, 투과계를 동시 적용한 노광용 마스크의 두께, 복소굴절률 정밀 결정 방법 / KIM Sang Jun^{1*}, IN SunJa¹, YOON HeeKyu¹, KIM SangYoul¹ (¹Research and Development, Ellipso Technology Co., Ltd.)

P2-se.36

Optical and Structural Properties of Perovskite Films on Well-aligned ZnO Nanorods / OH Jaewon¹, RYU Mee-Yi^{1*} (¹Department of Physics, Kangwon National University)

P2-se.37

Near-ultraviolet broadband emission from a 2D perovskite single crystal: BA₂PbI₄ / JANG Joon Ik^{1*}, NAM Seo Hyun¹, PARK Dea Young², JEONG Mun Seok² (¹Physics, Sogang University, ²Energy science, Sungkyunkwan University)

P2-se.38

Anisotropic Optical Property of MoS₂ Monolayer Investigated using a Multiple-angle-of-incidence Micro-spot Spectroscopic Ellipsometer / IN Sun Ja^{1*}, KIM Sang Jun¹, KIM Sang Youl¹ (¹R & D Div., Ellipso Technology Co., Ltd.)

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P2-st.01

Specific Heat of the Kagome-Lattice Ferromagnetic Ising Model in a Magnetic Field / KWAK Wooseop¹, KIM Seung-Yeon^{*2} (¹Department of Physics, Chosun University, ²School of Liberal Arts and Sciences, Korea National University of Transportation)

P2-st.02

Study on the Thermodynamic Properties of the Ising Model on a Simple-Cubic Lattice / KWAK Wooseop¹, KIM Seung-Yeon^{*2} (¹Department of Physics, Chosun University, ²School of Liberal Arts and Sciences, Korea National University of Transportation)

P2-st.03

Characteristics of the Schottky Anomalies for the Ising Ferromagnet and the Ising Antiferromagnet / KIM Seung-Yeon^{*1} (¹School of Liberal Arts and Sciences, Korea National University of Transportation)

P2-st.04

Impact of degree-weighted influence in the Majority-vote dynamics on Complex Networks / KIM Minsuk¹, YOON Soon Hyung^{*1} (¹Department of Physics, Kyung Hee University)

P2-st.05

Efficiency of a fuel-consuming active Stirling engine / BAEK Yongjoo^{*1}, OH Yongjae¹ (¹Department of Physics and Astronomy, Seoul National University)

P2-st.06

Thermodynamic uncertainty relation for Otto cycle / LEE Sangyun¹, HA Meesoon^{*2}, JEONG Hawoong^{1,4}, PARK Hyunggyu³ (¹Department of Physics, KAIST, ²Department of Physics Education, Chosun University, ³School of Physics, KIAS, ⁴APCTP, APCTP)

P2-st.07

Inertial effects in two-temperature Langevin dynamics / BAE Young-kyoung¹, LEE Sangyun¹, KIM Juin², JEONG Hawoong^{*1,3} (¹Physics Department, KAIST, ²Physics Department, Republic of Korea Air Force Academy, ³APCTP)

P2-st.08

Anomalous diffusion for active Brownian particles cross-linked to a networked polymer: Langevin dynamics simulation and theory / JOO Sungmin¹, DURANG Xavier¹, LEE O-chul¹, JEON Jae-Hyung^{*1} (¹Department of Physics, POSTECH)

P2-st.09

Non-Gaussian diffusion and energy balance of a Brownian particle in active baths / PARK Jin Tae^{1,2}, PANERU Govind¹, KWON Chulan³, GRANICK Steve^{1,2}, PAK Hyuk Kyu^{1,2} (¹Center for Soft and Living Matter, IBS, ²UNIST, ³Physics, Myongji University)

P2-st.10

An object gains motility in an active fluid through spontaneous symmetry breaking / KIM Ki-Won¹, CHOE Yunsik¹, BAEK Yongjoo¹ (¹Department of Physics and Astronomy, Seoul National University)

P2-st.11

Continuum boids model / YI Sudo¹, KIM Kiseok², BAEK Seung Ki² (¹School of Physics, KIAS, ²Department of Physics, Pukyong National University)

P2-st.12

Terminal Topology driven by Chemical Reaction Limited Aggregation (CRLA) / SHIN Jungyu¹, LEE In Jae¹ (¹Department of Physics, Chonbuk National University)

P2-st.13

Emergence of power laws in machine learning: case studies / KIM Gilhan¹, JO Junghyo¹, BAEK Yongjoo¹ (¹Department of Physics and Astronomy, Seoul National University)

P2-st.14

Dynamical analyses of visibility network in financial stock markets / KIM Kyungsik¹, MIN Seungsik², SHIN Ki-Hong¹ (¹Department of Physics, Pukyong National University, ²Department of Natural Science, Republic of Korea Naval Academy)

P2-st.15

Representations of Object Size and Numerosity in Artificial Neural Networks / JEONG Hawoong^{1,2}, KIM Gwangsu¹ (¹Physics Department, KAIST, ²APCTP)

P2-st.17

Machine Learning Approaches on the Stability Prediction of Power Grid / YANG Seong-Gyu¹, SON Seung-Woo², KIM Beom Jun¹, KIM Heetae³ (¹Sungkyunkwan University, ²Department of Applied Physics, Hanyang University, ³Data Science Institute, Universidad del Desarrollo)

P2-st.18

Evolving open system with Lotka-Volterra dynamics / PARK Youngjai¹, PARK Hye Jin^{2,3}, SON Seung-Woo¹ (¹Department of Applied Physics, Hanyang University, ²Department of Evolutionary Theory, Max-Planck Institute for Evolutionary Biology, ³Statistical Physics of Ecology and Evolution, APCTP)

P2-st.19

Revealing the evolution of composition of landscape painting through the lens

of information theory / LEE Byunghwee¹, SEO Min Kyung², KIM Daniel³, SHIN In-seob², SCHICH Maximilian⁴, JEONG Hawoong^{*1,5}, HAN Seung kee^{*2} (¹Physics Department, KAIST, ²Department of Physics, Chungbuk National University, ³Merck Sharp and Dohme, Merck Sharp and Dohme, ⁴ATEC & EODIAH, The University of Texas at Dallas, ⁵APCTP)

P2-st.20

Large teams benefit more from cognitive diversity / SON Gangmin¹, YUN Jinhyuk², JEONG Hawoong^{*1,3} (¹Physics Department, KAIST, ²Department of Smart Systems Software, Soongsil University, ³APCTP)

P2-st.21

Extracting hidden network from interacting system via neural network / HA Seungwoong¹, JEONG Hawoong^{*1,2} (¹Physics Department, KAIST, ²APCTP)

P2-st.22

Urban traffic dynamics through percolation analysis / KWON Yongsung¹, JUNG JungHoon², SON Seung-Woo^{*1} (¹Department of Applied Physics, Hanyang University, ²Department of Physics, University of Seoul)

P2-st.23

How lawmakers work in the 20th National Assembly of Korea / BAEK Seung Ki^{*1}, KIM Jonghoon¹, KIM Beom Jun² (¹Department of Physics, Pukyong National University, ²Department of Physics, Sungkyunkwan University)

P2-st.24

Analysis of loss of road network due to rising sea level / KANG Hyuk¹, KIM Young Jin¹, SONG Hark-Soo¹, KWON Okyu^{*1} (¹NIMS)

P2-st.25

Statistical Property of Price and Volatility Record Breaking Events in Korean Housing Market / KIM JINHO¹, YOON Soon Hyung^{*1,2} (¹Department of Social Network Science, Kyung Hee University, ²Department of Physics, Kyung Hee University)

P2-st.26

Ice flow sensitivity analysis of Pine Island Glacier using ISSM / KIM Jong-Ho¹, SONG Hark-Soo¹, PARK Chan¹, KANG Hyuk^{*1} (¹NIMS)

P2-st.27

A study on the average Sea-Level Rise on the Korean Peninsula using GIA-FingerPrint / SONG Hark-Soo¹, PARK Chan¹, KIM Jong-Ho¹, KANG Hyuk^{*1} (¹NIMS)

P2-st.28

Causal-state reconstruction from the movement of zebrafish in response to chemical stimuli / KIM Jonghoon¹, CHON Tae-Soo^{2,3}, QUANG Quach Kha⁴, BAEK Seung Ki^{*1} (¹Department of Physics, Pukyong National University, ²Department of Biological Sciences, Pusan National

University, ³Research and Development, Ecology and Future Research Institute, ⁴International Cooperation Department, Dong Thap University, Vietnam)

P2-st.29

Tensile elasticity of semiflexible polymers with reversible hinge defects / NOH Geunho¹, P Benetatos^{*1} (¹Department of Physics, Kyungpook National University)

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과학영재 중학생의 부력에 대한 개념 상태 / JIN SONG YUN¹, YOUNG KIM YI¹, NA KIM JI^{*1} (¹Physics Education, Pusan National University)

P2-te.02

손상 및 부하의 위치가 거미줄 그물망 구조에 미치는 영향 / 최효석¹, LEE Kyung Suk^{*1} (¹Department of Physics Education, Kongju National University)

P2-te.03

아두이노를 활용한 1차원 초음파 스캐너와 초음파 간섭 실험 / 이경환¹, LEE Heebok¹, LEE Kyung Suk^{*1} (¹Department of Physics Education, Kongju National University)

P2-te.04

Proposal of the Experiments Utilizing the Transparent Screen for Understanding of the Properties of Light in the Elementary-school Science Classes / JEON SEONGSOO¹, HYUN DONGGEUL^{*2} (¹Department of Science Education, Dogae Elementary School, ²Department of Science Education, Teachers College, Jeju National University)

P2-te.05

Practical Uses of Scientific Application Programs in Elementary Science Experiments / KIM Taekyu^{*1} (¹Department of Science Education, Jeonju National University of Education)

P2-te.06

긴 필라멘트 전구의 빛그림자 모양에 대한 불일치 상황 제시 전략에 따른 중학생들의 개념변화 특징 / KIM Yi Young¹, KIM Jina^{*1} (¹Department of Physics Education, Pusan National University)

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KIM GyuJin	P2-pl.11	KIM HyeongRyul	F6.04
KIM H. S.	P1-pl.22	KIM Hyo Jin	P2-co.303
KIM Ha Jin	P1-pl.17	KIM Hyo Jung	A8.01, G8.01
KIM Haesoo	P2-bp.07	KIM Hyo Seok	P2-co.204
KIM Hajin	P1-pl.26	KIM Hyoung Kug	P2-co.120
KIM HakSeong	P1-pa.06	KIM Hyuk Jin	C6.01, P1-co.205
KIM Hakseong	G5.07		
KIM HAN BEOM	P1-pa.08		
KIM HAN BEOM	E2.02		

KIM HyukJin	P2-se.18	KIM Jeongwoo	F6.03
KIM Hyun Gyu	P2-bp.08	KIM Jeongwoo	P2-pa.09
KIM Hyun ki	F8.03	KIM Jeongwoo	D5.02
KIM Hyunchul	E3.05	KIM Ji hoon	D14.06
KIM Hyunchul	E3.03	KIM Jiho	F4.05
KIM Hyun-Chul	C3.02, C3.03, C3.04, C3.06, C3.07, C3.08	KIM Ji-hoon	P1-pl.10
KIM Hyung Do	C2.10	KIM Jihun	B1.02
KIM Hyung Kug	C6.03	KIM Jihyun	F8.06
KIM Hyungjun	P2-se.07	KIM Jin Woo	G6.02
KIM Hyung-jun	E6.06	KIM Jin Young	F15.03
KIM HyunGyu	B16.05	KIM Jina	P2-te.06
KIM Hyunjung	P2-ap.211, P2-co.302, P2-co.303	KIM Jinhee	P2-co.108
KIM Hyunki	F8.02	KIM Jinho	D15.01
KIM Hyunsoo	B1.06	KIM JINHO	P2-st.25
KIM Hyunwoo	P2-bp.22	KIM Jinhyun	P2-bp.15
KIM Hyunyoung	F6.09	KIM Jinju	P2-pl.04
KIM Ilhwan	P2-se.09	KIM Jinkwang	P2-bp.02
KIM Ill Won	P1-co.301	KIM Jinkwon	C6.02
KIM Ill Won	P1-co.306, P1-co.312	KIM Jinkwon	H7.05
KIM Inseo	P2-co.212	KIM Jinkwon	E4.01
KIM J E	P2-pa.16, P2-pa.17	KIM Jinkwon	P2-ap.203
KIM J.Y	P2-pa.19	KIM Jinkyung	P1-co.104
KIM Jae Sung Kim	D1.01	KIM Jinsub	P1-pl.24
KIM Jae Wan	P1-pl.13	KIM Jinwoo	P1-pl.05, P1-pl.08
KIM Jae Yoon	P2-as.06	KIM Jinwoo	H5.01
KIM Jaegyū	P1-co.307	KIM Jinyong	P1-nu.12
KIM Jaeseung	P2-ap.211, P2-co.302	KIM Jinyu	G1.09
KIM Jaeyeon	P2-pa.27	KIM Jiseok	G3.02, P1-nu.04
KIM Jaeyool	G1.01, G1.06, P1-pa.07, P1-pa.11	KIM Jiwon	P2-bp.15
KIM Jae-Young	E6.06	KIM Jiwoong	E1.02, E1.03, P2-pa.08
KIM Jayeong	P1-ap.114	KIM Joeng Rae	P1-co.206
KIM Jayhyun	P1-pl.27	KIM Jong Chan	P1-co.312
KIM Jeaseung	P2-co.303	KIM Jong Hun	H5.06
KIM Jeehoon	H4.04	KIM Jong Hyuk	P1-co.111, P1-co.202
KIM Jeehwan	G7.01	KIM Jong Hyun	P2-co.309
KIM Jeong Hun	P2-ap.212	KIM Jong Soo	P2-pl.28
KIM Jeong Rae	H7.05	KIM Jonggeon	G1.06, G1.07
KIM Jeong Rae	P1-co.207	KIM JongGeon	G1.05
KIM Jeong Rae	E4.01	KIM Jonggun	G1.01, P1-pa.07
KIM Jeongdong	P1-ap.201	KIM Jong-Ho	P2-st.26, P2-st.27
KIM Jeongwoo	P2-pa.11	KIM Jonghoon	P2-st.23, P2-st.28
		KIM Jonghwan	C6.03
		KIM Jonghwan	B5.03

KIM Jong-Hwan	D5.01	KIM Kwangjin	A7.09
KIM Jong-Hwan	P1-co.108	KIM Kwanpyo	G8.04
KIM Jongkuk	C2.05	KIM Kwanpyo	P2-ap.305
KIM Jong-Woo	E4.05	KIM Kwanpyo	C4.03, G8.07, P2-ap.219, P2-ap.303
KIM Jong-Yun	P2-se.26		
KIM Joon Hyun	D13.04	KIM Kye-Ryung	P1-nu.10
KIM Ju Seok	P2-se.21	KIM Kye-Ryung	P2-co.113
KIM Jua	E1.04	KIM Kyoo	P1-co.204
KIM Juin	P2-st.07	KIM Kyoo	H5.07
KIM Jun Sung	C6.03	KIM Kyoo	C5.03
KIM Jun Sung	B6.06	KIM Kyoo	P2-co.103
KIM Jun Sung	P2-co.120	KIM Kyuheon	D14.06
KIM June-Young	C3.06	KIM Kyung Hyun	F16.02
KIM Jung Woo	P2-co.111	KIM Kyung Jin	B16.10
KIM Jungcheol	P2-ap.114	KIM Kyung Kiu	B2.06
KIM Jungho	E4.05, P2-ap.218, P2-co.310	KIM Kyung Taec	C12.01
		KIM Kyung Taec	C12.02
KIM Jung-Ho	A9.08	KIM Kyung Taec	E13.02
KIM Junghwan	P2-co.126	KIM Kyungah	C8.01
KIM Junghwan	P2-co.128	KIM Kyungho	P2-pa.24
KIM Junghyun	P2-at.11	KIM Kyungil	D3.06
KIM Jungmyung	E9.04	KIM Kyungmin	E15.01
KIM Jung-Wook	B2.05	KIM Kyung-Pil	A8.06
KIM Junho	B1.02	KIM Kyungsik	P2-st.14
KIM Junhyung	P2-ap.109	KIM Kyungtae	D13.03
KIM Junlee	E3.01, E3.02	KIM Kyungwon	F2.05
KIM Junsoo	P2-ap.212	KIM M. J.	B3.02
KIM Junwon	P1-co.204	KIM Mi Ra	E10.08
KIM Juran	A8.06, D14.01	KIM Mijoung	C7.03
KIM K.-H.	E16.04	KIM Min Jae	G7.04, P1-ap.106
KIM Kanghun	C9.06	KIM Min Jae	C6.01
KIM Kangwon	P2-ap.207	KIM Min Je	P2-ap.219
KIM Keun Soo	G7.04, P1-ap.106	KIM Min Jin	P2-ap.113, P2-ap.206
KIM Keun Su	C5.04	KIM Minchul	E10.05
KIM Keun-Young	B2.06	KIM Minchul	E10.06
KIM Kihwan	A8.04	KIM Minho	P1-pl.27
KIM Ki-jeong	H5.01	KIM Minho	D3.02
KIM Kipom	P2-bp.01	KIM Minho	C11.04
KIM Kiseok	P2-st.11	KIM Minhyo	E15.05
KIM Ki-Won	P2-st.10	KIM Minhyo	E15.04
KIM Kiwoong	P2-at.15	KIM MINHYO	G15.03, P2-as.01, P2-as.02
KIM Kooktae	P1-co.203		
KIM Kwang Pyo	P1-pl.24	KIM MinJay	P2-se.18
KIM Kwangeun	P2-se.16, P2-se.17	KIM Minjeong	C6.03

KIM Minjin	P2-ap.112	KIM Sanghoon	H6.04
KIM Minju	C11.03	KIM SangHui	E6.01
KIM Minju	P2-pl.05	KIM Sanghyo	P1-ap.201
KIM Minsoo	P2-pa.04	KIM Sangwoo	E15.05
KIM Minsoo	E4.02	KIM Sangwoo	E15.04
KIM Minsoo	E4.03	KIM Sangyeon	P2-pa.15
KIM Minsoo	E1.04, E1.05, P2-pa.06, P2-pa.07	KIM Sangyong	G1.06, G1.07
KIM Minsoo	A8.02	KIM Sang-Yoon	D9.06
KIM Minsoo	E5.01	KIM SangYoul	P2-se.35
KIM Minsuk	P2-st.04	KIM Se Hun	P1-co.208
KIM Minwoo	P2-pa.10	KIM Se Jin	B2.03
KIM Min-Woo	P1-ap.209	KIM Se Kwon	E5.03
KIM Miyoung	P1-co.206	KIM Se Yong	C2.12
KIM Miyoung	C6.02, F4.02, H7.05	KIM Seok	B2.07
KIM Moon J.	B4.01	KIM Seonghan	P2-pa.25
KIM Moonhoe	C7.03	KIM Seongsik	P1-pa.02
KIM Munhwa	P2-as.03	KIM Seonhwa	B2.01
KIM Myeongjin	H5.03, P2-se.12	KIM Seonyeong	A8.08
KIM Myong-Ho	G4.05	KIM Seonyeong	P2-ap.104, P2-ap.220, P2-co.104, P2-se.15
KIM Myunghwa	P1-ap.114	KIM Seulgi	P2-pa.14
KIM Nam Dong	P2-co.311	KIM Seung Joong	P2-bp.27
KIM Namdong	H5.07	KIM Seung Shik	P1-pl.01
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KIM Nam-Jung	P1-ap.114	KIM SeungCheon	E2.03
KIM Nammee	P2-se.08	KIM Seungchul	F6.06
KIM Namyong	C3.07	KIM Seunggyu	C16.04
KIM Philip	P1-co.105	KIM Seunggho	B5.01
KIM Ryundon	G5.08	KIM Seung-Yeon	P2-st.01, P2-st.02, P2-st.03
KIM S Kwang	H5.06	KIM Shin Hyung	B3.03, G3.05
KIM S. K.	P2-pa.21	KIM So Young	C6.03
KIM S.B	P2-pa.19	KIM Sohee	P2-ap.217
KIM Sammi	D14.01	KIM Sok Won	F8.02, F8.03
KIM Sang Hoon	F8.01	KIM Soo Min	E14.04
KIM Sang Jun	P2-se.38	KIM Soo Yeon	P2-co.303
KIM Sang Jun	P2-se.35	KIM Soobong	G1.06, G1.07
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KIM Sang Moon	P2-ap.212	KIM Soo-Bong	P1-pa.07
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KIM Sang yong	G1.01	KIM Sook Ho	C8.03
KIM Sang yong	P1-pa.07	KIM Soon Bin	C2.01
KIM Sang Youl	P2-se.38	KIM Soyoon	P2-se.31, P2-se.32
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KIM Sung-hoon	P2-ap.310	KIM Wooyoung	G1.01, G1.06, G1.07, P1-pa.07
KIM SungHyun	P2-se.12		
KIM Sung-Jo	E9.03	KIM Y J	P2-pa.16, P2-pa.17
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KIM Tae Heon	C6.02	KIM Yeong Gyun	E2.07
KIM Tae Heon	P1-co.211	KIM Yeong Gyun	F1.06
KIM Tae Heon	P1-co.301	KIM Yeong Gyun	F1.01
KIM Tae Heon	P1-co.306, P1-co.311, P1-co.312	KIM Yeongduk	P1-pa.14
		KIM Yeongduk	F3.06
KIM Tae Hyung	H6.02	KIM Yeongduk	E2.03, P1-pa.10
KIM TAE JEONG	B1.04, B1.08	KIM Yeongduk	D3.05
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KIM Tae Yeon	B8.04, B8.05	KIM Yeongjun	P2-ap.101, P2-co.123
KIM Taegyū	C2.08	KIM Yi Young	P2-te.06
KIM TaeGyun	P2-bp.16	KIM Yong Soo	P2-se.07
KIM Tae-Heon	P2-ap.109	KIM Yong Woon	C9.07
KIM Tae-Hwan	C6.03	KIM Yong Woon	E9.01
KIM Tae-Hwan	C4.02, P2-co.120	KIM Yonggi	P2-ap.217
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KIM Taekwang	A8.08	KIM Yong-Hoon	C7.05, E6.03, F6.05, H6.02, P1-ap.211, P2-co.204
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KIM Uhjin	F5.06	KIM Yongsun	E3.03, E3.05
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KIM Young	P2-bp.09	KO Joon-hyuk	P2-ap.310
KIM Young	C8.01	KO Jun Ho	P2-pl.11
KIM Young Dong	P2-se.28	KO Kyung-Tae	P1-co.113
KIM Young Hak	C6.01	KO Sanghyun	P2-pa.04, P2-pa.07
KIM Young Hoon	P1-ap.113	KO Sanghyun	D1.04, E1.04, E1.05,
KIM Young Jin	D9.04, P2-st.24		P2-pa.06
KIM Young Jun	C3.01	KO Y. J.	P2-pa.21
KIM Youngdo	P1-co.102	KO Young Ju	F2.03
KIM Younghak	E6.06	KO Young-il	G7.04, P1-ap.106
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KIM Youngho	P1-pl.09	KOHAMA Yoshimitsu	F4.02
KIM YoungJun	G3.01	KOMINE Junta	G15.01
KIM Young-June	E4.05	KONG S.-Y.	E16.04
KIM Youngkuk	G5.01	KONG Young Bae	P2-co.111
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KIM Youngman	D3.04	KOO Ja Wook	P2-bp.01
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KIM Young-Min	P1-co.307	KOO Tae-Yeong	G4.01
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※ 이 책자는 2020년도 정부재원(과학기술진흥기금 및 복권기금)으로
한국과학기술단체총연합회의 지원을 받아 발간되었음



- Arbitrary Waveform Generators
- Impedance Analyzers
- Lock-in Amplifiers
- Quantum Computing Control Systems



LabOne® provides users with a platform independent instrument control including proven measurement methodologies. It's designed to offer a great amount of flexibility for instrument usage and assures quick and efficient operation. The browser based user interface provides an outstanding toolset for time and frequency domain analysis as well as sophisticated support to set up control loops, making noise measurements or to interpret measurement data.

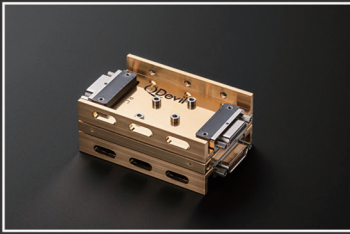
Let's discuss your application

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Accelerating quantum computing science



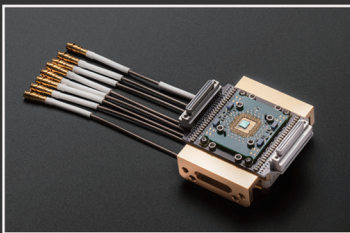
The QFilter

- Compact and efficient low-pass filtering of 24 signal lines, compatible with most fridges.
- RC and RF filter stages for best noise rejection.
- Ensures lowest electron temperature possible.



The QDAC

- Ultra stable 24 channel voltage source.
- For fine-tuning of qubits.
- Keeps qubits stable for days.
- Multiple units can be synchronized.



The QBoard

- Fast and safe sample mounting through dual PCB system.
- 48 DC and 16 RF lines for complex experiments.
- Various sample boards for different experimental requirements.



The QBox

- User friendly breakout box for easy signal routing.
- Connects 24 pin fridge wiring to individual BNC connectors.
- Protects the sample from transients during connection changes.