

<2022 봄 학술논문발표회 우수발표상 수상명단(구두발표부문)>

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A1.04*

Status of CMS LGAD Sensor Testing in Korea / YOO Jae Hyeok^{*1}, HONG Byeong Jin¹ (¹Physics, Korea University)

A2.06*

Holographic teleportation with conservation laws: diffusion on traversable wormholes / AHN Byoungjoon¹, BAK Sang-Eon¹, JAHNKE Viktor¹, KIM Keun Young^{*1} (¹Physics, GIST)

A3.05*

Simulation of an Active Target Time Projection Chamber for low-energy rare isotope beam experiment / LEE Seunghwan¹, KIM Yongsun^{*1} (¹Sejong University)

A5.05*

Development of Sagnac interferometer for magneto-optical measurement and its applications to superconductivity and magnetism / HEO Hyeokjun^{1,2}, CHOI Won Beom^{1,2}, HA Sangwook^{1,2}, KIM Taeho¹, JEONG Yungi^{1,2}, PARK Hangyeol^{1,2}, JANG Joonho^{*1,2} (¹Department of Physics, Seoul National University, ²Center for Correlated Electron Systems, CCES, IBS)

A8.04*

Accelerating density functional theory calculations by predicting charge density using convolutional neural networks / LEE Ryong-Gyu¹, KIM Yong-Hoon^{*1} (¹School of Electrical Engineering, KAIST)

A16.04*

Terahertz generation using a two-color laser pulse in a gaseous medium / SHRESTHA Rajaram^{1,2}, SHIN Jeong-uk^{1,2}, CHO Wosik², KIM Yang Hwan², KIM Kyungseung², KIM Ki-yong^{1,2}, KIM Kyung Taec^{*1,2} (¹Department of Physics and Photon Science, GIST, ²Center for Relativistic Laser Science, IBS)

A18.03*

Vacancy doping effects on MoS2 nanoflakes in various shapes and vacancy concentrations / YOU Suejeong^{*1}, KIM HEESANG¹, KIM Nammee¹ (¹Physics, Soongsil University)

A18.08*

Complete trion conversion and waveguiding in atomically thin semiconductors / LEE Hyeongwoo^{*1}, KUMAR Shailabh², KOO Yeonjeong¹, JEONG Yunjo⁴, CHOI Soo Ho⁵, KANG Mingu¹, KIM Ki Kang^{5,3}, AN Sangmin⁴, CHOO Hyuck^{2,6}, PARK Kyoung-Duck¹ (¹Department of physics, POSTECH, ²Department of Medical Engineering, Caltech, ³Department of Physics, Jeonbuk National University, ⁴Center for Integrated Nanostructure Physics, IBS, ⁵Department of Energy Science, Sungkyunkwan University, ⁶Device & System Research Center, SAIT)

A20.05*

Alternation of replication protein A binding mode on single-stranded DNA by NSMF potentiates RPA phosphorylation by ATR kinase / KANG Yujin¹, HAN Ye Gi¹, KHIM Keon Woo¹, CHOI Jang Hyun^{1,2}, KIM Hongtae^{1,2}, LEE Ja Yil^{*1,2} (¹Department of Biological Sciences, UNIST, ²Institute of Basic Science Center for Genomic Integrity (IBS-CGI), UNIST)

B1.03*

Hadronic Tau Identification for the Dual-Readout Calorimeter using Vision Transformer with Hyperparameter optimization / LEE Jason Sang Hun^{*1}, SON Youngwan¹, LEE Hyupwoo¹, WATSON Ian James¹, LEE Yunjae¹, KIM Doyoung¹, SONG Donghyun¹, LEE Sehwook², RYU Min Sang², KIM Bobae², LEE Junghyun², HUH Changgi², KO Sanghyun³, YOO Hwidong⁴, HA Seungkyu⁴, KIM Kyungho⁴, WATANUKI Shun⁴, CHO Guk⁴, KIM Dongwoon⁴, HWANG Kyuyeong⁴, EO Yun⁴, KIM Sungwon⁴, KIM Tongil⁴, KIM Jaeyoung⁴, KIM Youngsun⁵, CHEON Yechan⁵, LIM Sanghoon⁶, KIM Yongjoon⁶, RYU Jaehyeok⁶ (¹Department of Physics, University of Seoul, ²Department of Physics, Kyungpook National University, ³Department of Physics & Astronomy, Seoul National University, ⁴Department of Physics, Yonsei University, ⁵Department of Physics and Astronomy, Sejong University, ⁶Department of Physics, Pusan National University)

B1.04*

Reconstruction of 3D shower shape with the dual-readout calorimeter / YOO Hwidong^{*1}, KO Sanghyun², HUH Changgi³, JO Hyon-Suk³, KIM Bobae³, LEE Changhui³, LEE Junghyun³, LEE Sehwook³, RYU Minsang³, KIM Doyeong⁴, LEE Hyupwoo⁴, LEE Jason Sang Hun⁴, LEE Yunjae⁴, SON Youngwan⁴, WATSON Ian⁴, CHO Guk¹, EO Yun¹, HA Seungkyu¹, HWANG Kyuyeong¹, JANG Seoyun¹, KIM Dongwoon¹, KIM Tongil¹, WATANUKI Shun¹, CHEON Yechan⁵, KIM Yongsun⁵, KIM Yongjun⁶, LIM Sanghoon⁶, RYU Jaehyeok⁶, KIM Beomkyu⁷ (¹Department of Physics, Yonsei University, ²Department of Physics & Astronomy, Seoul National University, ³Department of Physics, Kyungpook National University, ⁴Department of Physics, University of Seoul, ⁵Department of Physics, Sejong University, ⁶Department of Physics, Pusan National University, ⁷Department of Physics, Sungkyunkwan University)

B1.07***Update of calibration and EM/jet energy resolution study with 4pi dual-readout calorimeter /**

YOO Hwidong^{*1}, HWANG Kyuyeong¹, GUK Cho¹, YUN Eo¹, HA Seungkyu¹, JANG Seoyun¹, KIM Dongwoon¹, KIM Sungwon¹, KIM Tongil¹, WATANUKI Shun¹, KO Sanghyun², HUH Changgi³, JO Hyon-Suk³, KIM Bobae³, LEE Changhui³, LEE Junghyun³, LEE Sehwook³, RYU Min Sang³, KIM Doyeong⁴, LEE Hyupwoo⁴, LEE Jason⁴, LEE Yunjae⁴, SON Youngwan⁴, WATSON Ian⁴, CHEON Yechan⁵, KIM Yongsun⁵, KIM Yongjun⁶, RYU Jaehyeok⁶, LIM Sanghoon⁶, KIM Beomkyu⁷ (¹Department of Physics, Yonsei University, ²Department of Physics, Seoul National University, ³Department of Physics, Kyungpook National University, ⁴Department of Physics, University of Seoul, ⁵Department of Physics, Sejong University, ⁶Department of Physics, Pusan National University, ⁷Department of Physics, Sungkyunkwan University)

B2.06***Gravitational Waves and PBHs from Tachyonic Instability in Higgs-R² Inflation /**

PARK Seongchan^{*1}, CHEONG Dhong Yeon¹ (¹Yonsei University)

B3.05***A New Analysis Method of the TexAT Experimental Data at High Beam Intensity /**

PARK Chaeyeon^{1,2}, HAHN Insik^{*2}, AHN Sunghoon² (¹Department of Physics, Ewha Womans University, ²Center for Exotic Nuclear Studies, IBS)

B6.05***Direct observation of interfacial charge trapping in SrRuO₃/SrTiO₃ heterostructures through noise spectroscopy /**

LEE Hyungwoo^{*1,2}, JEON Jaeyoung^{1,2} (¹Department of Physics, Ajou University, ²Department of Energy Systems Research, Ajou University)

B10.01***Electrical Improvement using PtSe₂/PtTe₂ Edge Contact Synthesized by Molecular Beam Epitaxy**

/ KIM Hyeon-Sik², JEONG Jaehun², KWON Gi-Hyeon², CHO Mann Ho^{*2,3} (¹Yonsei University, ²Department of Physics, Yonsei University, ³Department of System Semiconductor Engineering, Yonsei University)

B10.04***Mechanical behaviors of graphene nano-mechanical resonator under strain in different directions /**

JE Yugyeong¹, SHIN Dong Hoon², JEONG Hyunjeong¹, JEONG Hyeonhui¹, LEE Sang-Wook^{*1} (¹Department of Physics, Ewha Womans University, ²Kavli Institute of Nanoscience, Delft University of Technology)

C1.04*

Search for excited leptons in lly final states at 13 TeV / KIM Bobae^{*1}, HA Seungkyu², KIM Minsuk⁴, LEE Sehwook¹, NAM Kyungwook³, YOO Hwidong² (¹Kyungpook National University, ²Department of physics, Yonsei University, ³Department of physics, Kansas State University, ⁴Department of physics, Gangneung Wonju National University)

C1.07*

Search for new physics inside jets using non-isolated leptons / LEE Joon-Bin¹, YANG Un-ki^{*1} (¹Department of physics and astronomy, Seoul National University)

C1.09*

Measurement of Noise term in JER using random cones method at CMS detector / YOO Hwidong^{*1}, CHO Guk¹, HA Seungkyu¹, KIM Minsuk² (¹Department of Physics, Yonsei University, ²Department of Physics, Gangneung Wonju National University)

C2.06*

Portraying Double Higgs at the Large Hadron Collider / PI Jun Seung¹, KIM Jeong Han^{*1} (¹Department of Physics, Chungbuk National University)

C3.04*

Measurement of the cross sections for the $^{209}\text{Bi}(n,4n)^{206}\text{Bi}$ and $^{232}\text{Th}(n,6n)^{227}\text{Th}$ reactions by using monoenergetic neutrons generated by the $^9\text{Be}(p,n)^9\text{B}$ reaction / MOON Dal-Ho¹, CHAVAN Vivek Raghunath¹, HONG Seung Woo^{*1} (¹Department of Physics, Sungkyunkwan University)

C10.04*

Electrically controllable neuromodulation emulated by 2D weight-tunable memristor for neuromorphic application / HUH Woong¹, JANG Seonghoon¹, SO Jae-Pil², KIM Jong Chan³, LEE Donghun¹, KIM Yeon Ho¹, PARK Hong-Gyu², JEONG Hu Young³, WANG Gunuk^{1,4}, LEE Chul-Ho^{*1,4} (¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Department of Physics, Korea University, ³School of Material Science and Engineering, UNIST, ⁴Department of Integrative Energy Engineering, Korea University)

C12.01*

Molecular-scale photo-responsive heterojunction device with two-dimensional semiconductor / SHIN Jaeho¹, YANG Seunghoon¹, EO Jung Sun¹, JEON Takkyeong¹, LEE Chul-Ho^{1,2}, WANG Gunuk^{*1,2} (¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Department of Integrative Energy Engineering, Korea University)

C12.05*

Fluorescent spectroscopy and Doppler imaging of Yb atomic gas via 399nm / CHOI Taeyoung^{*1}, KIM Hyerin¹, YUM Dahyun¹, YOU Jieun¹, LEE Hyein¹, KIM Minjae¹ (¹Department of Physics, Ewha Womans University)

C19.05*

Approaching ideal visibility in singlet-triplet qubit operations using energy-selective tunneling-based Hamiltonian estimation / KIM Jehyun¹, JANG Wonjin¹, JANG Hyeongyu¹, PARK Jaemin¹, SONG Youngwook¹, CHO Min-Kyun¹, YUN Jongin¹, SHIM Sangwoo¹, SOHN Hanseo¹, JUNG Hwanchul², UMANSKY Vladimir³, KIM Dohun^{*1} (¹Department of Physics and Astronomy, Seoul National University, ²Department of Physics, Pusan National University, ³Braun Center for Submicron Research, Department of Condensed Matter Physics, Weizmann Institute of Science)

C19.06*

Exciton complexes in gate-tuned transition metal dichalcogenides / LEE Young-Jun¹, JUNG Jinwoo¹, KIM Ji-Yeon¹, CHO Chang-Hee^{*1} (¹Department of Physics and Chemistry, DGIST)

D2.06*

A KSVZ sensitive axion search experiment around 24.5 μeV with an 8-cell microwave resonant cavity and a Josephson Parametric Amplifier / KUTLU Caglar^{1,2}, LEE Soohyung^{*1}, UCHAIKIN Sergey¹, AHN Saebyeok^{1,2}, JEONG Junu², BAE Seongjae^{1,2}, YOUN Sungwoo², SEMERTZIDIS Yannis K^{1,2} (¹Physics, KAIST, ²Center for Axion and Precision Physics Research, IBS)

D2.09*

Performance of the trigger-veto detector for KAEM / KIM Bobae^{*1}, HUH Changgi¹, LEE Junghyun¹, RYE Min Sang², LEE Sehwook¹, HAUPTMAN John³ (¹Kyungpook National University, ²Center for High Energy Physics, Kyungpook National University, ³Department of Physics, Iowa State University)

D5.05*

Chaotic nonlinear dynamics in magnetic skyrmions / PARK Gyuyoung¹, KIM Sang-koog^{*1} (¹Seoul National University)

D8.01*

Prediction of dual topological nature in NaZnBi / LEE Hyunggeun¹, KANG Yoon-Gu¹, JUNG Myung-Chul¹, HAN Myung Joon^{*1}, CHANG Kee Joo¹ (¹Department of Physics, KAIST)

D8.02*

Vestige of hourglass Weyl fermion and anomalous Hall effect in non-collinear antiferromagnet

Co_{1/3}TaS₂ / KANG Yoon-Gu¹, PARK Pyeongjae^{2,3}, PARK Je-Geun^{2,3,4}, HAN Myung Joon^{*1} (¹Department of Physics, KAIST, ²Center for Quantum Materials, Seoul National University, ³Department of Physics & Astronomy, Seoul National University, ⁴Institute of Applied Physics, Seoul National University)

D10.03*

Heteroepitaxial growth of γ -GeSe crystals / JUNG Joong-Eon¹, LEE Sol¹, LEE Yangjin¹, PARK Jinsub¹, KIM Kwanpyo^{*1} (¹Physics, Yonsei University)

D10.06*

Droplet evaporation and absorption in porous materials / GONÇALVES Marta¹, KIM Jin Young^{1,2}, KIM Yeseul^{1,2}, RUBAB Najab², JUNG Narina², ASAI Takeshi³, HONG Sungchan³, WEON Byung Mook^{*1,2} (¹School of Advanced Materials Science and Engineering SKKU Advanced Institute of Nanotechnology (SAINT, Sungkyunkwan University, ²Research Center for Advanced Materials Technology, Sungkyunkwan University, ³Faculty of Health and Sports Science, University of Tsukuba)

D13.04*

Effects of higher-order components in hypergraphs / KIM Jung-Ho¹, GOH KWANG-IL^{*1} (¹Korea University)

D15.01*

Numerical study of resonantly growing long beam instability in over-dense plasma / MOON Kook-Jin¹, CHUNG Moses^{*1} (¹Department of Physics, UNIST)

E13.05*

Continuous phase transition in Brownian Potts Model: Suppression of phase coexistence by particle diffusion / WOO Chul-Ung¹, RIEGER Heiko², NOH Jae Dong^{*1} (¹Department of Physics, University of Seoul, ²Department of Theoretical Physics & Center for Biophysics, Saarland University)

E17.05*

Maximum-Independent-Set Experiments with Random Arrays of Rydberg Atoms / KIM Kangheun¹, KIM Minhyuk¹, AHN Jaewook^{*1} (¹Physics, KAIST)

F1.06*

Studies on the detector modules for SUBMET / YOO Jae Hyeok^{*1}, JEONG Hoyong¹ (¹Physics, Korea University)

F17.01*

Observation of universal coarsening dynamics in a ferromagnetic spinor Bose-Einstein

condensate / HUH SeungJung¹, SEO Jihoon¹, KWON Kiryang¹, HUR Junhyeok¹, CHOI Jae Yoon^{*1}
(¹Physics Department, KAIST)

F17.06*

Observation of interplay between propagations of phase front and phase information during defect formation on a quenched inhomogeneous Bose gas / KIM Myeonghyeon¹, RABGA Tenzin², LEE Yangheon^{1,2}, BAE Dalmin^{1,2}, GOO Junhong¹, SHIN Yong-il^{*1,2,3} (¹Department of Physics and Astronomy, Seoul National University, ²Center for Correlated Electron Systems, Institute for Basic Science, ³Institute of Applied Physics, Seoul National University)

G6.03*

Anisotropic metamagnetic transition and intrinsic Berry curvature in magnetic Weyl semimetal NdAlGe / CHO Beong Ki^{*1}, RHYEE Jong-Soo^{*3}, CHO Keun ki^{1,2}, HAN Song Hee⁴, YOON Seung-ha² (¹School of Materials Science and Engineering, GIST, ²Green Energy & Nano Technology R&D Group, KITECH, ³Department of Applied Physics and Institute of Natural Sciences, Kyung Hee University, ⁴Division of Navigation Science, Mokpo National Maritime University)

G7.02*

Steady Floquet-Andreev States in graphene Josephson junctions / PARK Sein¹, LEE Wonjun^{1,3}, JANG Seong¹, CHOI Yong-Bin¹, PARK Jinho¹, CHAN Jung Woo¹, WATANABE Kenji², TANIGUCHI Takashi², CHO Gil Young^{1,3,4}, LEE Gil-Ho^{*1,3} (¹Department of Physics, POSTECH, ²Research Center for Functional Materials, NIMS, ³., Asia-Pacific Center for Theoretical Physics(APCTP), ⁴Center for Artificial Low Dimensional Electronic Systems, IBS)

G7.05*

Theoretical study of spin-valley polarized electronic structures of twisted bilayer graphene / CHO Yosep¹, CHOI Young Woo^{1,2}, CHOI Hyoung Joon^{*1} (¹Department of Physics, Yonsei University, ²Department of Physics, University of California, Berkeley)

G9.01*

Kondo interaction in FeTe and its potential role in the magnetic order / KIM Younsik^{1,2}, KIM Minsoo^{1,2}, KIM Min-Seok³, CHENG Cheng-Maw⁴, CHOI Joonyoung⁵, JUNG Saegyeol^{1,2}, LU Donghui⁶, KIM Jong Hyuk⁷, CHO Soohyun⁸, SONG Dongjoon^{1,2}, OH Dong Jin^{1,2}, YU Li⁹, CHOI Young Jai⁷, KIM Hyeong-Do¹⁰, HAN Jung Hoon¹¹, JO Youn Jung⁵, SEO Jungpil³, HUH Soon Sang^{1,2}, KIM Changyoung^{*1,2} (¹Center for Correlated Electron System, Institute for Basics Science, ²Department of Physics and Astronomy, Seoul National University, ³Department of Emerging Materials Science, DGIST, ⁴-, National Synchrotron Radiation Research Center, ⁵Department of Physics, Kyungpook

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G9.04*

Symmetry-preserving strain engineering of Hundness and Mottness in a two-dimensional correlated system / KO Eun Kyo^{1,2}, HAN Sungsoo^{1,2}, SOHN Changhee³, LEE Sangmin⁴, KIM Choong Hyun^{1,2}, KIM Changyoung^{1,2}, NOH Tae Won^{*1,2} (¹Department of Physics and Astronomy, Seoul National University, ²Center for Correlated Electron Systems, CCES (IBS), ³Department of Physics, UNIST, ⁴Department of Materials Science and Engineering and Research Institute of Advanced Materials, Seoul National University)

G11.02*

Colossal THz emission by Spin-to-Charge Conversion in topologically non-trivial $\text{Bi}_{1-x}\text{Sb}_x$ / RHO Seungwon², PARK Hanbum², KIM Jonghoon², CHO Mann Ho^{*2,3} (¹Yonsei University, ²Department of Physics, Yonsei University, ³Department of System Semiconductor Engineering, Yonsei University)

G11.06*

Anomalous domain switching dynamics in Si:HfO_2 thin film capacitors / KIM Yoon Ki¹, YOO Hyo Bin¹, YANG Sang Mo^{*1} (¹Department of Physics, Sogang University)

G19.05*

Fabrication of narrow bandgap CuInSe_2 (CIS) solar cell via solution-based spray deposition / MINA Md Salahuddin¹, ENKHBAYAR Enkhjargal¹, KIM JunHo^{*1} (¹Incheon National University)

H3.02*

Model study on the collectivity in small collision systems of different geometry / LIM SangHoon^{*1}, LIM Hyunji¹ (¹Physics Department, Pusan National University)

H3.05*

Measurement of the transverse momentum (p_T) distribution of jet fragmentation in 5.02 TeV pp collision with ALICE / LIM SangHoon^{*1}, RYU Jaehyeok¹ (¹Physics Department, Pusan National University)

H3.08*

Production of molecular configuration hadron / YOON HyungOk¹, LEE Su Houn^{*1}, LIM

SangHoon², CHO Sung Tae³, KIM Yongsun⁴ (¹Yonsei University, ²Department of Physics, Pusan National University, ³Division of Science Education, Kangwon National University, ⁴Department of Physics, Sejong University)

H6.01*

Anisotropic nature and spin-flop transition in antiferromagnetic NiPS₃ / KIEM Do Hoon¹, NAUMAN Muhammad⁵, CHOI Joonyoung², PARK Je-Geun^{3,4}, HAN Myung Joon^{*1}, JO Youn Jung² (¹Department of Physics, KAIST, ²Department of Physics, Kyungpook National University, ³Department of Physics and Astronomy, Seoul National University, ⁴Center for Quantum Materials, Seoul National University, ⁵Division of Mathematical and Physical Sciences, Institute of Science and Technology (IST))

H9.04*

Exotic Thermal Transitions with Spontaneous Symmetry Breaking / MOON Eun-Gook^{*1}, OH Hanbit¹ (¹physics, KAIST)

H11.02*

Dual Ag-Graded Structure Engineering for High Efficiency ACZTSSe Solar Cells / ENKHBAT Temujin¹, ENKHBAYAR Enkhjargal¹, MINA Md Salahuddin¹, KIM JunHo^{*1} (¹Incheon National University)

I3.03*

The h₁ axial-vector meson in the coupled-channel approach / CLYMTON Samson¹, KIM Hyun-Chul^{*1} (¹Inha University)

I16.04*

투명 다층 센서를 이용한 3차원 위치, 각도 정보 측정 / CHOI Minho¹, CHOI Jaewu^{*1} (¹Information Display, Kyung Hee University)