

<2023 봄 학술논문발표회 우수발표상 수상명단>

(구두발표 부문)

\* 총 91건

**TA16.05\***

**Implementation of the ACTS tracking software into the COMET Phase-II experiment / RAZQUIN LIZARRAGA Amaia<sup>\*1</sup>, LEE Myeong Jae<sup>1</sup> (1Department of Physics, Sungkyunkwan University)**

**TA19.05\***

**Encoding the lattice in the Holography / YUK Taewon<sup>1</sup>, SIN Sang Jin<sup>\*1</sup> (1Department of Physics, Hanyang University)**

**TA19.08\***

**Holographic duals of Higgsed Dp(ABCD) / LEE Yein<sup>\*1</sup> (1Department of Physics, Kyung Hee University)**

**A1.04\***

**All-optical control of high-purity trions in nanoscale waveguide / LEE Hyeongwoo<sup>1</sup>, KOO Yeonjeong<sup>1</sup>, KUMAR Shailabh<sup>2,3</sup>, JEONG Yunjo<sup>4</sup>, HEO Dong Gwon<sup>5</sup>, CHOI Soo Ho<sup>6</sup>, JOO Huitae<sup>1</sup>, KANG Mingu<sup>1</sup>, SIDDIQUE Radwanul Hasan<sup>2,3</sup>, KIM Ki Kang<sup>6,7</sup>, LEE Hong Seok<sup>5</sup>, AN Sangmin<sup>5</sup>, CHOO Hyuck<sup>2,8</sup>, PARK Kyoung-Duck<sup>\*1</sup> (1Department of Physics, POSTECH, 2Department of medical engineering, Caltech, USA, 3Meta Vision Lab, SAIT, 4Institute of Advanced Composite Materials, KIST, 5Department of Physics, Jeonbuk National University, 6Center for Integrated Nanostructure Physics, IBS, 7Department of Energy Science, Sungkyunkwan University, 8Advanced Sensor Lab, SAIT)**

**A1.05\***

**Adaptive tunable gap-enhanced Raman scattering (GERS) via 1D flexible Au nanogap / PARK Kyoung-Duck<sup>\*1</sup>, KIM Dai-Sik<sup>2</sup>, MOON Taeyoung<sup>1</sup>, DAS Bamadev<sup>2</sup>, JOO Huitae<sup>1</sup>, KOO Yeonjeong<sup>1</sup>, KANG Mingu<sup>1</sup> (1Department of Physics, POSTECH, 2Physics and Quantum Photonics Institute, UNIST)**

**A5.04\***

**Optical spectroscopy study of the passivation effect by laser scribing process in the hybrid perovskite module / KIM Yejin<sup>1</sup>, JEONG Yujin<sup>2,3</sup>, KO Seoyeon<sup>1</sup>, KIM Gee Yeong<sup>2</sup>, YOON Seokhyun<sup>\*1</sup> (1Department of Physics, Ewha Womans University, 2Advanced Photovoltaic Research Center, KIST, 3Department of Material Science and Engineering, Korea University)**

**A6.08\***

**Observation of filamentary conduction in an oxide thin film by Raman microscopy** / PARK Heung-Sik<sup>1</sup>, YANG Chan-Ho<sup>\*1</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Material Science and Engineering, KAIST)

**A7.01\***

**Order-disorder phase transition driven by interlayer sliding in lead iodides** / CHA Seyeong<sup>1</sup>, LEE Giyeok<sup>2</sup>, LEE Sol<sup>1</sup>, RYU Sae Hee<sup>3</sup>, KIM Kwanpyo<sup>1</sup>, SOON Aloysius<sup>2</sup>, KIM Keun Su<sup>\*1</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of Materials Science and Engineering, Yonsei University, <sup>3</sup>Lawrence Berkeley National Laboratory, Advanced Light Source, USA)

**A7.03\***

**Dirac nodal lines in puckered honeycomb crystals** / AN Gijeong<sup>1</sup>, KIM Keun Su<sup>\*1</sup> (<sup>1</sup>Department of Physics, Yonsei University)

**A7.08\***

**Investigating the domain walls of the unidirectional charge density wave in GdTe<sub>3</sub>** / LEE Sanghun<sup>1</sup>, KIM Eunseo<sup>1</sup>, BANG Junho<sup>1</sup>, PARK Jongho<sup>2</sup>, WULFERDING Dirk<sup>2</sup>, KIM Changyoung<sup>2</sup>, CHO Doohee<sup>\*1</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of Physics and Astronomy, Seoul National University)

**A9.01\***

**Spontaneous breaking of mirror symmetry beyond critical doping in Pb-Bi<sub>2</sub>Te<sub>3</sub>** / JUNG Saegyeol<sup>1</sup>, SEOK Byeongjun<sup>1</sup>, SONG Dongjoon<sup>2</sup>, KIM Changyoung<sup>\*1</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University, <sup>2</sup>Department of Physics and Astronomy, University of British Columbia)

**A17.03\***

**Differential chemistry in the early universe** / LEE Minkyu<sup>1</sup>, PARK Jubin<sup>1</sup>, CHEOUN Myung Ki<sup>\*1</sup> (<sup>1</sup>Department of Physics, Soongsil University)

**A18.07\***

**SiPM Coupled to CsI(Tl) for Low Energy  $\gamma$ /X-ray Spectroscopy** / ANJUM Faizan<sup>1</sup>, LEE Jik<sup>2</sup>, KIM Hong Joo<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, Kyungpook National University, <sup>2</sup>The Center for High Energy Physics, Kyungpook National University)

**A19.01\***

**Status of COSINE-100 experiment** / YU Gyunho<sup>\*1</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University)

**A19.03\***

**Non-proportionality of the COSINE-100 Experiment** / LEE Seung Mok<sup>\*1</sup>, KO Young Ju<sup>2</sup>, LEE Hyun Su<sup>2</sup>, JEON Eun Ju<sup>2</sup>, KIM Kyoung Won<sup>2</sup>, KIM Sun Kee<sup>1</sup>, CHOI Jaejin<sup>1</sup>, JOO Han Wool<sup>1</sup> (<sup>1</sup>Department of Physics & Astronomy, Seoul National University, <sup>2</sup>Center For Underground Physics, IBS)

**A19.09\***

**Korean topographic tomography using a muon detector (HAWL)** / SEO Jiwon<sup>\*1</sup>, HA Chang Hyon<sup>1</sup>, KOH Byoung-cheol<sup>1</sup>, KIM Jinyoung<sup>1</sup>, LEE Yujin<sup>1</sup>, WON Seong Joon<sup>1</sup> (<sup>1</sup>Department of Physics, Chung-Ang University)

**B2.05\***

**Finite Size Scaling Approach for Revealing Inherent Scale-Freeness in Heterogeneous Networks** / JEONG Yeonsu<sup>1</sup>, LEE Deok-Sun<sup>2</sup>, SON Seungwoo<sup>1</sup>, LEE Mi Jin<sup>\*1</sup> (<sup>1</sup>Department of Applied Physics, Hanyang University, <sup>2</sup>School of Computational Sciences and Center for AI and Natural Sciences, KIAS)

**B3.02\***

**Nanocavity-integrated van der Waals heterobilayers for nano-excitonic transistor** / KOO Yeonjeong<sup>1</sup>, LEE Hyeongwoo<sup>1</sup>, IVANOVA Tatiana<sup>2</sup>, SAVELEV Roman<sup>2</sup>, PETROV Mihail<sup>2</sup>, KRAVTSOV Vasily<sup>2</sup>, PARK Kyoung-Duck<sup>\*1</sup> (<sup>1</sup>Department of Physics, POSTECH, <sup>2</sup>School of Physics and Engineering, ITMO University, Russia)

**B3.06\***

**Time-resolved photoemission spectroscopy simulation of black phosphorus with pseudospin** / CHOI Youngchan<sup>1</sup>, JEON Jiwon<sup>1</sup>, LEE JaeDong<sup>\*1</sup> (<sup>1</sup>Department of Physics and Chemistry, DGIST)

**B5.05\***

**Anisotropic rippling of black phosphorus induced by van der Waals epitaxy of noble metals** / KIM Kwanpyo<sup>\*1</sup>, LEE Kihyun<sup>1</sup>, LEE Yangjin<sup>1</sup> (<sup>1</sup>Department of Physics, Yonsei University)

**B5.06\***

**Phase Transition of Graphite-Encapsulated  $\gamma$ -GeSe** / KIM Kwanpyo<sup>\*1,2</sup>, KIM Joonho<sup>1</sup>, LEE Kihyun<sup>1,2</sup>, JUNG Joong-Eon<sup>1</sup>, LEE Sol<sup>1,2</sup>, LEE Han Joo<sup>1</sup>, IM Seongil<sup>1</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Institute for Basic Science)

#### **B6.04\***

**Searching for Majorana bound states by Shapiro steps measurement in  $\text{FeTe}_{0.55}\text{Se}_{0.45}$  Josephson junction** / LEE Gil-Ho<sup>\*1</sup>, SHIN Seung-Hyun<sup>1</sup>, GU Genda<sup>2</sup> (<sup>1</sup>Department of Physics, POSTECH, <sup>2</sup>Condensed Matter Physics and Material Science, Brookhaven National Lab, USA)

#### **B9.04\***

**Optical transitions of a single nodal ring in  $\text{SrAs}_3$ : Theoretical analysis** / JEON Jiwon<sup>1,2</sup>, JANG Jihoo<sup>3</sup>, KIM Hoil<sup>4,5</sup>, PARK Taesu<sup>6</sup>, KIM Dong Wook<sup>7</sup>, 박재현<sup>2</sup>, MOON Soonjae<sup>7</sup>, KIM Jun Sung<sup>4,5</sup>, SHIM Ji Hoon<sup>6</sup>, MIN Hongki<sup>\*3</sup>, CHOI E. J.<sup>\*2</sup> (<sup>1</sup>Natural Science Research Institute, University of Seoul, <sup>2</sup>Department of Physics, University of Seoul, <sup>3</sup>Department of Physics and Astronomy, Seoul National University, <sup>4</sup>Center for Artificial Low Dimensional Electronic Systems, Institute for Basic Science (IBS), <sup>5</sup>Department of Physics, POSTECH, <sup>6</sup>Department of Chemistry, POSTECH, <sup>7</sup>Department of Physics, Hanyang University)

#### **B9.06\***

**Classification of Fermionic Topological Orders using Congruence Representations** / CHO Gil Young<sup>1</sup>, KIM Hee-Cheol<sup>1</sup>, SEO Donghae<sup>\*1</sup>, YOU Minyoung<sup>1</sup> (<sup>1</sup>Department of Physics, POSTECH)

#### **B10.02\***

**ZnO/NiO-Based Transparent Photovoltaic Cells: Plasmonic Effects of ZnO/Ag-Nanowire Top Electrodes** / SONG Jungeun<sup>1</sup>, PATEL Malkeshkumar<sup>2</sup>, JOHANNESSON Sara Evelyn<sup>1,3</sup>, KIM Joondong<sup>2</sup>, KIM Dong-Wook<sup>\*1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University, <sup>2</sup>Department of Electrical Engineering, Incheon National University, <sup>3</sup>Department of Chemistry, University of Edinburgh, UK)

#### **B10.06\***

**Coupling Interlayer Resistance and Carrier Scattering Mechanisms in Multilayer Rhenium Disulfide for High Temperature Carrier Transport Analysis** / CHAE Minji<sup>1</sup>, JOO Min-Kyu<sup>\*1</sup> (<sup>1</sup>Department of Applied Physics, Sookmyung Women's University)

#### **B13.07\***

**Polymorphic and dual topological insulating phases of InTe** / LEE Sangmin<sup>1,2</sup>, KIM Miyoung<sup>1</sup>, KWON Young-Kyun<sup>\*2</sup> (<sup>1</sup>Department of Materials Science and Engineering, Seoul National University, <sup>2</sup>Department of Physics, Kyung Hee University)

#### **B13.09\***

**Athermal charge effect on electro-plasticity of metal** / YOO Seungwoo<sup>1</sup>, KWON Young-Kyun<sup>\*1</sup> (<sup>1</sup>Department of Physics, Kyung Hee University)

**B14.05\***

**Translation-dependent subcellular localization of cytoplasmic mRNA in *E. coli*** / PARK Soojin<sup>1</sup>,  
LEE Nam Ki<sup>\*1</sup> (<sup>1</sup>Seoul National University)

**B17.05\***

**Study of jet fragmentation in ALICE** / LIM SangHoon<sup>\*1</sup>, RYU Jaehyeok<sup>1</sup>, KIM Beom Kyu<sup>2</sup>  
(<sup>1</sup>Department of Physics, Pusan National University, <sup>2</sup>Department of Physics, Sungkyunkwan University)

**B18.03\***

**Coulomb Dissociation of  $^{17}\text{B}$**  / LEE Hyeji<sup>\*1</sup> (<sup>1</sup>Department of Physics, Tokyo Institute of Technology, Japan)

**B19.06\***

**Measurement of  $V_{cb}$  Element of Cabibbo-Kobayashi Maskawa (CKM) Matrix Using Top Pair Production Semileptonic Channel** / YANG Un-ki<sup>\*1</sup>, SHIN Jihoon<sup>1</sup>, OH Byunghun<sup>1</sup>, KIM Yeonjoon<sup>1</sup>, YOON Inseok<sup>1</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University)

**B19.09\***

**Updates on search for heavy Majorana neutrinos in dilepton + jets final states with CMS Run II data** / YANG Un-ki<sup>\*1</sup>, KIM Jihun<sup>1</sup>, LEE Haneol<sup>1</sup>, ALMOND John<sup>1</sup>, JEON Si Hyun<sup>1</sup>, KIM Youngwan<sup>1</sup>  
(<sup>1</sup>Department of Physics and Astronomy, Seoul National University)

**C5.01\***

**Short-wavelength infrared photodetection in  $\text{MoS}_2$**  / HONG Chengyun<sup>1,2</sup>, OH Saejin<sup>1,2</sup>, DAT Vu Khac<sup>1,2</sup>, KIM Ji-Hee<sup>\*1,2</sup> (<sup>1</sup>Department of Energy Science, Sungkyunkwan University, <sup>2</sup>Center for Integrated Nanostructure Physics, Institute for Basic Science)

**C5.02\***

**Moiré phonons in interlayer interaction of monolayer- $\text{WSe}_2$ /bilayer- $\text{MoS}_2$  heterostructures** / OH Siwon<sup>1</sup>, KIM Han-gyu<sup>2</sup>, KIM Jungcheol<sup>1</sup>, JEONG Huiseok<sup>2</sup>, CHOI Hyoung Joon<sup>2</sup>, CHEONG Hyeonsik<sup>\*1</sup>  
(<sup>1</sup>Department of Physics, Sogang University, <sup>2</sup>Department of Physics, Yonsei University)

**C5.07\***

**Observation of resonance mode shapes in graphene nano-electro-mechanical drums** / JE Yugyeong<sup>1</sup>, JEONG Hyunjeong<sup>1</sup>, LEE Sang-Wook<sup>\*1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University)

**C10.05\***

**Kondo Cloud and Entanglement in Exotic Kondo Effects** / KIM Donghoon<sup>\*1</sup>, SHIM Jeongmin<sup>1,2</sup>, SIM Heung-Sun<sup>1</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Arnold Sommerfeld Center for Theoretical Physics, Center for NanoScience, and Munich Center for Quantum Science and Technology, Ludwig Maximilian University of Munich, Germany)

**C13.07\***

**Spectroscopic evidence for spin splitting in altermagnetic MnTe** / LEE Suyoung<sup>1,2</sup>, LEE Sangjae<sup>4</sup>, KANG Chang-Jong<sup>3</sup>, KIM Changyoung<sup>\*1,2</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University, <sup>2</sup>Center for Correlated Electron Systems, Institute for Basic Science, <sup>3</sup>The Research Institute of Basic Sciences, Seoul National University, <sup>4</sup>Department of Physics, Chungnam National University)

**C14.03\***

**Single-molecule imaging reveals the molecular mechanisms underlying collision between a replicating DNA polymerase and a single R-loop** / KIM Subin<sup>1</sup>, LEE Ja Yil<sup>\*1</sup> (<sup>1</sup>Department of Biological Sciences, UNIST)

**C18.07\***

**The cosmological constant term, stability condition and mass decomposition of the nucleon** / WON Hoyeon<sup>1</sup>, KIM Hyun-Chul<sup>\*1</sup>, KIM June-Young<sup>2</sup> (<sup>1</sup>Inha University, <sup>2</sup>Theory Center, Thomas Jefferson Lab, USA)

**D2.02\***

**Learning Langevin equation from trajectories via Bayesian neural networks** / BAE Youngkyoung<sup>1</sup>, HA Seungwoong<sup>1</sup>, JEONG Hawoong<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Center for Complex Systems, KAIST)

**D4.01\***

**First-principles study of lattice oxygen instability in oxide-based cathode** / HWANG Jaejin<sup>1</sup>, LEE Jaekwang<sup>\*1</sup>, CHUNG Sung-Yoon<sup>2</sup> (<sup>1</sup>Department of Physics, Pusan National University, <sup>2</sup>Department of Materials Science and Engineering, KAIST)

**D7.05\***

**Quantum geometry and Landau levels of quadratic band crossings** / JUNG Junseo<sup>1,2,3</sup>, LIM Hyeongmuk<sup>1,2,3</sup>, YANG Bohm Jung<sup>\*1,2,3</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University, <sup>2</sup>Center for Correlated Electron Systems, Institute for Basic Science, <sup>3</sup>Center for Theoretical Physics, Seoul National University)

**D7.07\***

**Thermoelectric Measurements as a Tool for Studying Electronic Structures in Quantum Materials** / KWON Du Hyuk<sup>1,2</sup>, DOH Yong-Joo<sup>3</sup>, SONG Jonghyun<sup>\*2</sup>, BAE Myung-Ho<sup>\*1</sup> (<sup>1</sup>KRISS,

<sup>2</sup>Department of Physics, Chungnam National University, <sup>3</sup>Department of Physics and Photon Science, GIST)

**D11.04\***

**Characterization of strongly coupled plasmas generated by a femtosecond pulse laser within a phase coexisting supercritical fluid** / LEE Juho<sup>1</sup>, KIM Dong Eon<sup>1,2</sup>, YUN Gunsu<sup>\*1,3</sup> (<sup>1</sup>Department of

Physics, POSTECH, <sup>2</sup>Max Planck Center for Attosecond Science, Max Planck POSTECH Korea Research Initiative, <sup>3</sup>Division of Advanced Nuclear Engineering, POSTECH)

**D16.02\***

**Search for new physics using non-isolated leptons in the CMS experiment** / LEE Joon-Bin<sup>1</sup>, YANG Un-ki<sup>\*1</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University)

**D17.05\***

**Current Status of E42 Data Analysis for the H-dibaryon Search** / JUNG WooSeung<sup>1</sup>, AHN Jung Keun<sup>\*1</sup>, For the E42 Collaboration<sup>1,2</sup> (<sup>1</sup>Department of Physics, Korea University, <sup>2</sup>ASRC, JAEA, Japan)

**D17.09\***

**Exploring hadronic rescattering effects on resonance productions in pp and pA collisions** / LIM SangHoon<sup>\*1</sup>, JI SuJeong<sup>1</sup>, PARK Gyeongbin<sup>1</sup> (<sup>1</sup>Department of Physics, Pusan National University)

**D18.01\***

**Consistent analyses of nuclear structures and reactions using the Gamow Shell Model** / KIM Jaewon<sup>1</sup>, LEE Jeong-Yeon<sup>\*1</sup>, CHEOUN Myung-Ki<sup>1</sup> (<sup>1</sup>Department of Physics and Origin of Matter and Evolution of Galaxies (OMEG) Institute, Soongsil University)

**E5.03\***

**Unraveling the magnetic properties governing domain-wall dynamics in ferromagnets: a peculiar reversal phenomenon** / KIM Minhwan<sup>1,2</sup>, CHOE Sug Bong<sup>\*2</sup>, KIM Duck-Ho<sup>\*1</sup> (<sup>1</sup>Center for Spintronics, KIST, <sup>2</sup>Department of Physics and Astronomy, Seoul National University)

**E6.01\***

**Delocalization transition in non-Hermitian quasicrystals** / LEE SungBin<sup>\*1</sup>, JEON Junmo<sup>1</sup> (<sup>1</sup>Department of Physics, KAIST)

### E8.03\*

**Direct correlation between spin states and magnetic torques in a room-temperature van der Waals antiferromagnet** / SHIN Hyun Jun<sup>1</sup>, KIM Jin Seok<sup>1</sup>, KIM Jong Hyuk<sup>1</sup>, SEO Jae Yeon<sup>1</sup>, HONG Jae Min<sup>1</sup>, JEONG Ki Won<sup>1</sup>, MOON Kyungsun<sup>1</sup>, KIM Mi Kyung<sup>1</sup>, LEE Nara<sup>1</sup>, CHOI Young Jai<sup>1</sup>  
(<sup>1</sup>Department of Physics, Yonsei University)

### E16.04\*

**UFSD3 LGAD Sensors post-processed and tested in Korea** / YOO Jae Hyeok<sup>\*1</sup>, HONG Byeong Jin<sup>1</sup>  
(<sup>1</sup>Department of Physics, Korea University)

### F2.03\*

**An empirical test for percolation-based network efficiency indicators to identify bottleneck links in traffic flow networks** / YU Geonjong<sup>1</sup>, EOM Young-Ho<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, University of Seoul, <sup>2</sup>Natural Science Research Institute, University of Seoul)

### F2.09\*

**To Cooperate or Not to Cooperate: The Behavior of Discriminators in the Lack of Information on the opponent** / CHAE Sunhee<sup>1</sup>, JEONG Hyeong-Chai<sup>\*1</sup> (<sup>1</sup>Department of Physics and Astronomy, Sejong University)

### F4.05\*

**Acousto-optic detection schemes for deep tissue imaging with improved resolution and modulation efficiency** / OH Jaeyeon<sup>\*1</sup> (<sup>1</sup>Bio and Brain Engineering, KAIST)

### F13.04\*

**Battery Diagnostics with Atomic Magnetometer** / YU Ye Jin<sup>1</sup>, MOON Han Seb<sup>\*1</sup> (<sup>1</sup>Pusan National University)

### F19.02\*

**The multi channel system of MCP-PMT with Dual-Readout Calorimeter for future  $e^+e^-$  colliders and its DAQ operation** / YOO Hwidong<sup>\*1</sup>, JANG Haeun<sup>1</sup>, CHO Guk<sup>1</sup>, EO Yun<sup>1</sup>, HA Seungkyu<sup>1</sup>, HWANG Kyuyeong<sup>1</sup>, JANG Seoyun<sup>1</sup>, KIM Dongwoon<sup>1</sup>, KIM Sungwon<sup>1</sup>, KIM Tongil<sup>1</sup>, HUH Changgi<sup>2</sup>, KIM Bobae<sup>2</sup>, LEE Junghyun<sup>2</sup>, LEE Sehwook<sup>2</sup>, RYU Min Sang<sup>3</sup>, KO Sanghyun<sup>4</sup>, KWON Hyejin<sup>4</sup>, KIM Doyeong<sup>5</sup>, LEE Hyupwoo<sup>5</sup>, LEE Jason<sup>5</sup>, LEE Yunjae<sup>5</sup>, SON Youngwan<sup>5</sup>, KIM Dongwook<sup>6</sup>, KWON Nahye<sup>6</sup>, PARK Hyesung<sup>6</sup>, KIM Yongjun<sup>7</sup>, LIM Sanghoon<sup>7</sup>, RYU Jaehyeok<sup>7</sup>, BAE Joonsuk<sup>8</sup>, KIM Beomkyu<sup>8</sup>, LEE Hyungjun<sup>8</sup>, PARK Hyebin<sup>8</sup>, CHAE Sooho<sup>9</sup>, HWANG Jieun<sup>9</sup>, KIM Minsuk<sup>9</sup>, OH Minseok<sup>10</sup>, ENARI Yuji<sup>11</sup>, CHOI Suyong<sup>12</sup>, CHEON Byunggu<sup>13</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of



Physics, Kyungpook National University, <sup>3</sup>CHEP (Center for High Energy Physics), Kyungpook National University, <sup>4</sup>Department of Physics, Seoul National University, <sup>5</sup>Department of Physics, University of Seoul, <sup>6</sup>Severance, Yonsei University, <sup>7</sup>Department of Physics, Pusan National University, <sup>8</sup>Department of Physics, Sungkyunkwan University, <sup>9</sup>Department of Physics, Gangneung Wonju National University, <sup>10</sup>Department of Physics, KIT, Germany, <sup>11</sup>Department of Physics, University of Tokyo, Japan, <sup>12</sup>Department of Physics, Korea University, <sup>13</sup>Department of Physics, Hanyang University)

#### **F19.03\***

##### **Study on Dual-readout calorimeter SiPM channels using 2022 test beam data at CERN / YOO**

Hwidong<sup>\*1</sup>, KIM Sungwon<sup>1</sup>, CHO Guk<sup>1</sup>, EO Yun<sup>1</sup>, HA Seungkyu<sup>1</sup>, HWANG Kyuyeong<sup>1</sup>, JANG Haeun<sup>1</sup>, JANG Seoyun<sup>1</sup>, KIM Dongwoon<sup>1</sup>, KIM Tongil<sup>1</sup>, HUH Changgi<sup>2</sup>, KIM Bobae<sup>2</sup>, LEE Junghyun<sup>2</sup>, LEE Sehwook<sup>2</sup>, RYU Minsang<sup>3</sup>, KO Sanghyun<sup>4</sup>, KWON Hyejin<sup>4</sup>, KIM Doyeong<sup>5</sup>, LEE Hyupwoo<sup>5</sup>, LEE Jason<sup>5</sup>, LEE Yunjae<sup>5</sup>, SON Younwan<sup>5</sup>, KIM Dongwook<sup>6</sup>, KWON Nahye<sup>6</sup>, PARK Hyesung<sup>6</sup>, KIM Yongjun<sup>7</sup>, LIM Sanghoon<sup>7</sup>, RYU Jaehyeok<sup>7</sup>, BAE Joonsuk<sup>8</sup>, KIM Beomkyu<sup>8</sup>, LEE Hyungjun<sup>8</sup>, PARK Hyebin<sup>8</sup>, CHAE Sooho<sup>9</sup>, HWANG Jieun<sup>9</sup>, KIM Minsuk<sup>9</sup>, OH Minseok<sup>10</sup>, ENARI Yuji<sup>11</sup>, CHOI Suyong<sup>12</sup>, CHEON Byunggu<sup>13</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of Physics, Kyungpook National University, <sup>3</sup>Center for High Energy Physics, Kyungpook National University, <sup>4</sup>Department of Physics, Seoul National University, <sup>5</sup>Department of Physics, University of Seoul, <sup>6</sup>Severance Hospital, Yonsei University, <sup>7</sup>Department of Physics, Pusan National University, <sup>8</sup>Department of Physics, Sungkyunkwan University, <sup>9</sup>Department of Physics, Gangneung Wonju National University, <sup>10</sup>Department of Physics, KIT, Germany, <sup>11</sup>Department of Physics, University of Tokyo, Japan, <sup>12</sup>Department of Physics, Korea University, <sup>13</sup>Department of Physics, Hanyang University)

#### **G4.05\***

##### **Interface properties between SnO<sub>2</sub> and lead halide perovskite: impact on charge transport /**

YOUN Sarah Su-O<sup>1</sup>, JO William<sup>1</sup>, KIM Gee Yeong<sup>\*2</sup> (<sup>1</sup>Department of Physics, Ewha Womans University, <sup>2</sup>Advanced Photovoltaics Research Center, KIST)

#### **G11.05\***

##### **Fusion yield scaling law in laser-cluster fusion experiments / WON Junho<sup>1</sup>, SONG Jaehyun<sup>1</sup>, LEE**

Seongmin<sup>1</sup>, SONG Chiwan<sup>1</sup>, BANG Woosuk<sup>\*1</sup> (<sup>1</sup>Department of Physics and Photon Science, GIST)

#### **G13.06\***

##### **Real-time monitoring of the atomic motion trapped inside a high-finesse optical resonator /**

LEE Dowon<sup>\*1</sup>, KIM Donggeon<sup>1</sup>, HA Taegyul<sup>1</sup>, LEE Moonjoo<sup>1</sup> (<sup>1</sup>Department of Electrical Engineering, POSTECH)

## H2.05\*

### **Finite-size scaling analysis of the two-dimensional random transverse-field Ising ferromagnet**

/ CHOI Jiwon<sup>2</sup>, BAEK Seung Ki<sup>\*1</sup> (<sup>1</sup>Department of Scientific Computing, Pukyong National University,

<sup>2</sup>Department of Physics, Pukyong National University)

## H3.05\*

### **The Stability Investigation of Polymer-Dopant Composite coated Post-Transition Metal**

**Chalcogenide** / JO Ji Eun<sup>1</sup>, KWON Chan<sup>1</sup>, PARK Hyeon Jung<sup>1</sup>, PARK Dae Young<sup>1</sup>, JEONG Mun Seok<sup>\*1</sup>

(<sup>1</sup>Department of Physics, Hanyang University)

## H3.06\*

### **Kondo Effect of Double Quantum Dots Coupled to Quantum Hall Edge States** / PARK Dongsung

T.<sup>1</sup>, YANG Chanuk<sup>2</sup>, HONG Changki<sup>3</sup>, KIM Uhjin<sup>2</sup>, JUNG Hwanchul<sup>4</sup>, UMANSKY V.<sup>3</sup>, SIM H.-S.<sup>1</sup>, CHUNG Yunchul<sup>4</sup>, CHOI Hyung Kook<sup>2</sup>, CHOI Hyoungsoon<sup>\*1</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Department of Physics, Jeonbuk National University, <sup>3</sup>Department of Condensed Matter Physics, Weizmann Institute of Science, Israel, <sup>4</sup>Department of Physics, Pusan National University)

## H5.04\*

### **Magnetic field-agnostic identification of spin-spin interactions with latent embedding learning**

/ KIM Dohun<sup>\*1</sup>, JUNG Kyunghoon<sup>1</sup>, YUN Jiwon<sup>1</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University)

## H5.07\*

### **Building a quadrupole linear Paul trap and optimizing the trap performance to confine multiple Ytterbium ions for quantum computing** / KIM Hyunsoo<sup>1</sup>, KIM Hyerin<sup>1</sup>, YOO Jieun<sup>1</sup>, YUM Dahyun<sup>1</sup>,

CHOI Taeyoung<sup>\*1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University)

## H9.07\*

### **Variational Monte Carlo Study of $J_1$ - $J_d$ - $J_x$ Model on the Kagome Lattice** / KIM Hee Seung<sup>1</sup>, YANG

Hyeok-Jun<sup>1</sup>, PENC Karlo<sup>2</sup>, LEE SungBin<sup>\*1</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Department of Physics, Institute for Solid State Physics and Optics, Hungary)

## H10.04\*

### **Probing two-qubit capacitive interactions beyond bilinear regime using dual Hamiltonian parameter estimations** / KIM Dohun<sup>\*1</sup>, YUN Jonginn<sup>1</sup>, PARK Jaemin<sup>1</sup>, JANG Hyeongyu<sup>1</sup>, KIM Jehyun<sup>1</sup>,

JANG Wonjin<sup>1</sup>, SONG Youngwook<sup>1</sup>, CHO Min-Kyun<sup>1</sup>, SOHN Hanseo<sup>1</sup>, JUNG Hwanchul<sup>3</sup>, UMANSKY Vladimir<sup>2</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University, <sup>2</sup>Braun Center for

Submicron Research, Department of Condensed Matter Physics, Weizmann Institute of Science, Israel,  
<sup>3</sup>Department of Physics, Pusan National University)

#### **H10.05\***

**Single-electron spin qubit in isotopically enriched silicon** / KIM Dohun<sup>\*1</sup>, SOHN Hanseo<sup>1</sup>, JANG Wonjin<sup>1</sup>, PARK Jaemin<sup>1</sup>, SONG Younguk<sup>1</sup>, KIM Jehyun<sup>1</sup>, JANG Hyungyu<sup>1</sup>, MIYAMOTO Satoru<sup>2</sup>, ITOH Kohei<sup>3</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University, <sup>2</sup>Graduate School of Engineering, Nagoya University, Japan, <sup>3</sup>Department of Applied Physics and Physico-Informatics, Keio University, Japan)

#### **H12.01\***

**Student and Preservice Teacher's Understanding of Voltage by Section in Electrical Circuit; Prediction, Measurement of Practical Experiments and Tinkercad Simulation Experiments** / YUN Ji Young<sup>1</sup>, JI Young Rae<sup>\*2</sup> (<sup>1</sup>Department of Science Education, Sunchon National University, <sup>2</sup>Department of Physics Education, Sunchon National University)

#### **H12.07\***

**물리학 교육과정 및 교과서의 양자물리학 내용요소 분석 Analyzing Quantum Physics contents in Physics Textbook and Physics Curriculum** / LEE Taegyong<sup>1</sup>, JU Yoon Hyun<sup>1</sup>, KANG Nam-Hwa<sup>\*1</sup> (<sup>1</sup>Department of Physics Education, Korea National University of Education)

#### **H13.03\***

**Study of Kibble-Zurek scaling in a homogenous Unitary Fermi gas** / KIM Taehoon<sup>1</sup>, LEE Kyuhwan<sup>1,2</sup>, KIM Sol <sup>1,2</sup>, SHIN Yong-il<sup>\*1,2</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University, <sup>2</sup>Center for Correlated Electron Systems, Institute for Basic Science)

#### **H16.08\***

**Status of SUB-Millicharge Experiment (SUBMET)** / YOO Jae Hyeok<sup>\*1</sup>, JEONG Ho Yong<sup>1</sup> (<sup>1</sup>Department of Physics, Korea University)

#### **H17.05\***

**Performance test of prototype Beam Drift Chamber(pBDC) of the LAMPS experiment at HIMAC** / MOON Dong Ho<sup>\*1</sup>, BAE Yunseul<sup>1</sup>, SEO Junhu<sup>1</sup>, HEO Cheong<sup>1</sup>, KIM Hyunchul<sup>1</sup>, HWANG Jaein<sup>2</sup>, HONG Byungsik<sup>2</sup>, KIM Young Jin<sup>3</sup>, LEE Hyo Sang<sup>3</sup>, LEE Chengsoo<sup>3</sup> (<sup>1</sup>Department of Physics, Chonnam National University, <sup>2</sup>Department of Physics, Korea University, <sup>3</sup>Institute for Basic Science, Rare Isotope Science Project)

#### H18.07\*

**Bullet dwarfs galaxies: A potentially new probe for the cross section of dark matter particles /** SHIN Eun-jin<sup>\*1</sup>, LEE Joohyun<sup>2</sup>, KIM Ji-hoon<sup>1</sup> (<sup>1</sup>Seoul National University, <sup>2</sup>Department of Astronomy and Texas Cosmology Center, University of Texas at Austin, USA)

#### H18.08\*

**Head-on Collision of Fuzzy/Cold Dark Matter /** KOO Hyeonmo<sup>1</sup>, BAK Dongsu<sup>1</sup>, PARK Inkyu<sup>\*1</sup> (<sup>1</sup>University of Seoul)

#### H19.04\*

**Development of low-energy event selection method for NaI(Tl) crystal detectors using waveform simulation /** CHOI Jaejin<sup>1,2</sup>, LEE Hyun Su<sup>\*2</sup> (<sup>1</sup>Department of Physics & Astronomy, Seoul National University, <sup>2</sup>Center for Underground Physics, IBS)

#### I2.06\*

**Transient confinement and recovery dynamics in viscoelastic systems /** LIM Chan<sup>1</sup>, JEON Jae-Hyung<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, POSTECH, <sup>2</sup>Asia-Pacific Center for Theoretical Physics(APCTP))

#### I3.02\*

**Dark Excitons from WSe<sub>2</sub> Monolayer on the Au Micro-pillar Structures /** CHO Ga Hyun<sup>1</sup>, JEONG Hyun<sup>1</sup>, SUH HyeongChan<sup>1</sup>, JEONG Mun Seok<sup>\*1</sup> (<sup>1</sup>Department of Physics, Hanyang University)

#### I4.04\*

**Indirect bandgap semiconductor laser operating at room-temperature under continuous-wave excitation of WS<sub>2</sub> multilayer cavity /** SUNG Junghyun<sup>1</sup>, GONG Su-Hyun<sup>\*1</sup> (<sup>1</sup>Department of Physics, Korea University)

#### I4.08\*

**Highly efficient biexciton generation and hyper Raman scattering in two-dimensional halide perovskite (C<sub>6</sub>H<sub>5</sub>C<sub>2</sub>H<sub>4</sub>NH<sub>3</sub>)<sub>2</sub>PbI<sub>4</sub> under resonant two-photon excitation /** SHIN Seunghan<sup>1</sup>, JANG Joon Ik<sup>\*1</sup> (<sup>1</sup>Department of Physics, Sogang University)

#### I5.06\*

**Development of a droplet-based microfluidic isothermal titration calorimetry /** LEE Wonhee<sup>\*1</sup>, CHAE Minho<sup>1</sup> (<sup>1</sup>Department of Physics, KAIST)

**I7.06\***

**Topological Andreev bands in three-terminal graphene Josephson junctions** / JUNG Woochan<sup>1</sup>, JIN Seyoung<sup>1</sup>, PARK Sein<sup>1</sup>, SHIN SeungHyun<sup>1</sup>, TANIGUCHI Takashi<sup>2</sup>, WATANABE Kenji<sup>2</sup>, CHO Gil Young<sup>1</sup>, LEE Gil-Ho<sup>\*1</sup> (<sup>1</sup>Department of Physics, POSTECH, <sup>2</sup>Functional Materials, National Institute for Materials Science, Japan)

**I8.06\***

**Ab initio study on the magnetic properties of layered and randomly mixed Co-Pt alloys** / KWON Young-Kyun<sup>\*1,2</sup>, PARK Sohee<sup>2</sup> (<sup>1</sup>Department of Physics, Kyung Hee University, <sup>2</sup>Department of Information Display, Kyung Hee University)

**I13.05\***

**Dynamical generation of a skyrmion spin texture in a ferromagnetic spinor Bose-Einstein condensate** / HUH SeungJung<sup>1</sup>, YUN Gabin<sup>1</sup>, HWANG Samgyu<sup>1</sup>, CHOI Jae Yoon<sup>\*1</sup> (<sup>1</sup>Department of Physics, KAIST)

**I17.04\***

**Development of a LaBr<sub>3</sub> detector array for high-energy gamma-ray measurement** / AHN Jung Keun<sup>\*1</sup>, LEE Sungjune<sup>1</sup> (<sup>1</sup>Department of Physics, Korea University)

**I17.05\***

**Design of Low-pressure Gas TPC for Stellar Nucleosynthesis Reactions** / AHN Jung Keun<sup>\*1</sup>, LEE Haein<sup>1</sup> (<sup>1</sup>Department of Physics, Korea University)

**I18.05\***

**Satellite Galaxy Populations in a Cosmological Simulation and Its Physical Implications**/ JUNG Minyong<sup>1</sup>, KIM Ji-hoon<sup>\*1</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University)

**I19.02\***

**Inflation and tachyonic preheating with twin waterfalls** / LEE Hyun Min<sup>\*1</sup>, MENKARA Adriana Guerrero<sup>1</sup> (<sup>1</sup>Department of Physics, Chung-Ang University)

**I19.06\***

**Cored Dark Matter halos in the Cosmic Neutrino Background** / CHO Wonsub<sup>\*1</sup>, CHOI Ki-Young<sup>1</sup>, KIM Hee Jung<sup>2</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University, <sup>2</sup>Center for Theoretical Physics of the Universe, Institute for Basic Science)