

## <2023 가을 학술논문발표회 우수발표상 수상명단>

### (구두발표 부문)

\* 총 82건

#### A2.03\*

**Search for rare interactions of Dark Matter with high-energy neutrinos from distant point sources with the IceCube Neutrino Telescope** / KANG Woosik<sup>\*1</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University)

#### A6.03\*

**Production of S=-2 systems near the threshold in the  $^{12}\text{C}(K^-,K^+)X$  reaction at 1.8 GeV/c** / JUNG WooSeung<sup>1</sup>, AHN Jung Keun<sup>\*1</sup>, FOR THE E42 Collaboration<sup>1,2,3</sup> (<sup>1</sup>Department of Physics, Korea University, <sup>2</sup>ASRC, JAEA, Japan, <sup>3</sup>Department of Physics, Tohoku University, Japan)

#### A12.02\*

**Exploring Laser-Patterned Hybrid Perovskite Modules through Optical Spectroscopy** / KIM Yejin<sup>1</sup>, JEONG Yujin<sup>2,3</sup>, KO Seoyeon<sup>1</sup>, KIM Gee Young<sup>2</sup>, YOON Seokhyun<sup>\*1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University, <sup>2</sup>Advanced Photovoltaic Research Center, KIST, <sup>3</sup>Department of Material Science and Engineering, Korea University)

#### A14.03\*

**전기방사를 이용한 니켈 세륨 셀레나이드 나노섬유 전극기반 준고체 슈퍼커패시터 제작** / EDUGULLA Girija Shankar<sup>2</sup>, PARANJAPE Mandar Vasant<sup>2</sup>, YU Jae Su<sup>\*1,2</sup> (<sup>1</sup>Department of Electronic Engineering, Kyung Hee University, <sup>2</sup>Department of of Electronics and Information Convergence Engineering, Kyung Hee University)

#### A15.03\*

**Ferroelectric domain wall dynamics in trilayer transition metal dichalcogenides** / PARK Daesung<sup>1</sup>, JEONG Siwon<sup>1</sup>, YOO Hyobin<sup>\*1</sup> (<sup>1</sup>Department of Physics, Sogang University)

#### B3.03\*

**Inclusive search for new physics with razor variables and boosted objects in hadronic and leptonic final states using CMS Run 2 data** / HUHH Changgi<sup>\*1</sup>, SEKMEN Sezen<sup>1</sup>, LEE Sehwook<sup>1</sup>, LEE Junghyun<sup>1</sup>, BORAN Fatma<sup>2</sup>, TOK Ufuk Guney<sup>2</sup>, MARTON Krisztina<sup>3</sup> (<sup>1</sup>Department of Physics, Kyungpook National University, <sup>2</sup>Department of Physics, Cukurova University, Turkey, <sup>3</sup>Department of Physics, Wigner Institute of Physics, Hungary)

### **B3.08\***

**Search for Right-Handed W Bosons Decaying Into Heavy Neutral Leptons** / YANG Un-ki<sup>\*1</sup>, KIM Youngwan<sup>1</sup> (<sup>1</sup>Department of Physics and Astronomy, Seoul National University)

### **B6.01\***

**Evaluation of Astrophysically Important Nuclear Structure in <sup>19</sup>Ne** / KIM Sohyun<sup>1</sup>, CHAE Kyung Yuk<sup>\*1</sup>, SMITH Michael S<sup>2</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University, <sup>2</sup>Physics Division, Oak Ridge National Laboratory, USA)

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

**Study of the <sup>14</sup>O( $\alpha$ ,p)<sup>17</sup>F Cross Section for Type I X-ray burst light curve** / AHN Sunghoon(Tony)<sup>\*2</sup>, PARK Chaeyeon<sup>1,2</sup>, AVILA Melina L<sup>17</sup>, BAE Sunghan<sup>2</sup>, BARBUI Marina<sup>4</sup>, BARDAYAN Daniel W<sup>7</sup>, BISHOP Jack<sup>4</sup>, CHA Soomi<sup>2</sup>, CHAE Kyungyuk<sup>10</sup>, CHEN Alan<sup>8</sup>, CHILLERY Thomas William<sup>3</sup>, COGNATA Marco La<sup>13</sup>, DO Seungkyung<sup>9</sup>, GU Gyuongmo<sup>10</sup>, HAHN Kevin Insik<sup>2</sup>, HAYAKAWA Seiya<sup>3</sup>, HONG Byungsik<sup>9</sup>, IMAI Nobuaki<sup>3</sup>, IWASA Naohito<sup>11</sup>, KIM Dahee<sup>2</sup>, KIM Yunghee<sup>2</sup>, KIM Minju<sup>10</sup>, KIM Sohyun<sup>10</sup>, KIM Chanhee<sup>10</sup>, KIM Aram<sup>9</sup>, KITAMURA Noritaka<sup>3</sup>, KOSHCHIIY Yevgen<sup>4</sup>, KUBONO Shigeru<sup>15</sup>, LEE Hyeji<sup>12</sup>, MOON Byul<sup>2</sup>, NAKAMURA Takashi<sup>12</sup>, NGUYEN Duy Ngoc<sup>14</sup>, OKAWA Kodai<sup>3</sup>, PARKER Cody Cody<sup>4</sup>, PSALTIS Athanasios<sup>16</sup>, ROGACHEV Grigory V<sup>4,5</sup>, ROOSA Michael<sup>4,5</sup>, SASANO Masaki<sup>15</sup>, SFERRAZZA Michele<sup>6</sup>, YAMAGUCHI Hidetoshi<sup>3</sup>, ZHANG Qian<sup>3</sup>, LEE Jungwoo<sup>2</sup>, PEREIRA LÓPEZ Xesus<sup>2</sup> (<sup>1</sup>Department of Physics, Ewha Womans University, <sup>2</sup>Center for Exotic Nuclear Studies, IBS, <sup>3</sup>Center for Nuclear Study, University of Tokyo, Japan, <sup>4</sup>Cyclotron Institute, Texas A&M University, USA, <sup>5</sup>Department of Physics & Astronomy, Texas A&M University, USA, <sup>6</sup>Département de Physique, Université Libre de Bruxelles, Belgium, <sup>7</sup>Department of Physics & Astronomy, University of Notre Dame, USA, <sup>8</sup>Department of Physics and Astronomy, McMaster University, Canada, <sup>9</sup>Department of Physics, Korea University, <sup>10</sup>Department of Physics, Sungkyunkwan University, <sup>11</sup>Department of Physics, Tohoku University, Japan, <sup>12</sup>Department of Physics, Tokyo Institute of Technology, Japan, <sup>13</sup>Istituto Nazionale di Fisica Nucleare, Italy, <sup>14</sup>Institute of Postgraduate Program, Van Lang University, Vietnam, <sup>15</sup>Nishina Center, RIKEN, Japan, <sup>16</sup>Triangle Universities Nuclear Laboratory, Duke University, USA, <sup>17</sup>Argonne National Laboratory, USA)

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

**Large anomalous Hall effect and intrinsic Berry curvature in magnetic Weyl semimetal NdAlGe** / CHO Keunki<sup>1,2</sup>, CHO Beong Ki<sup>\*1</sup>, SHON Wonhyuk<sup>3</sup>, YOON Seungha<sup>2</sup>, HAN Song hee<sup>5</sup>, RHYEE Jongsoo<sup>\*4</sup> (<sup>1</sup>School of Materials Science and Engineering, GIST, <sup>2</sup>Green Energy and Nano Technology R&D Group, KITECH, <sup>3</sup>Advanced Quantum Materials Research Center, KAERI, <sup>4</sup>Institute of Natural Sciences, Kyung Hee University, <sup>5</sup>3Division of Navigation Science, Mokpo National Maritime University)

**B11.03\***

**Dynamics of exceptional points in non-Hermitian toric code** / YEOM Cheolhun<sup>1</sup>, PARK Moon Jip<sup>2</sup>  
(<sup>1</sup>Department of Physics, Hanyang University, <sup>2</sup>Department of Physics, Konkuk University)

**B11.04\***

**Control of trigonal crystal field and critical temperature in cobalt-based Kitaev quantum spin liquid candidates  $A_3Co_2SbO_6$  ( $A=Cu, Na$ )** / SOHN Changhee<sup>\*1</sup>, PARK Miju<sup>1</sup>, KIM Gyeheon<sup>1</sup>  
(<sup>1</sup>Department of Physics, UNIST)

**B15.04\***

**Laser Induced Phase Transition of 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 Seong Il<sup>1</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Center for Nanomedicine, IBS)

**B15.05\***

**Imaging disorders in moiré superlattice at a mesoscopic scale** / HEO Yoon Seong<sup>1,2</sup>, LEE Jae-Ung<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, Ajou University, <sup>2</sup>Department of Energy Systems Research, Ajou University)

**B15.07\***

**Investigation of vibrational and thermal properties of  $\gamma$ -GeSe** / PARK Jinsub<sup>1</sup>, JE Yugyeong<sup>2</sup>, KIM Joonho<sup>1</sup>, JUNG Joong-Eon<sup>1</sup>, PARK Je Myoung<sup>3</sup>, CHEONG Hyeonsik<sup>3</sup>, LEE SangWook<sup>2</sup>, KIM Kwanpyo<sup>\*1</sup>  
(<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of Physics, Ewha Womans University, <sup>3</sup>Department of Physics, Sogang University)

**C2.01\***

**Dark matter search using NaI(Tl) at the COSINE-100 experiment** / YU Gyunho<sup>\*1</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University)

**C3.02\***

**Performance of the local reconstruction algorithms for the CMS hadron calorimeter with Run 2 data** / YOO Jae Hyeok<sup>\*1</sup>, PADMANABAN Jayashri<sup>1</sup> (<sup>1</sup>Department of Physics, Korea University)

**C5.03\***

**Investigating velocity distribution effects on temporal correlation of photon-pair generated in atomic vapor cell** / KIM Heewoo<sup>1</sup>, JEONG Hansol<sup>1</sup>, MOON Han Seb<sup>\*1</sup> (<sup>1</sup>Pusan National University)

**C7.07\***

**Development of Low-pressure Gas TPC for Stellar Nucleosynthesis Reactions** / LEE Haein<sup>1</sup>, AHN

Jung Keun\*<sup>1</sup> (<sup>1</sup>Department of Physics, Korea University)

**C9.05\***

**Bend-induced Phase Coexistence and Hysteresis of Heterogeneous Ring Polymers** / LIM Chan<sup>1</sup>, JEON Jae-Hyung\*<sup>1,2</sup> (<sup>1</sup>Department of Physics, POSTECH, <sup>2</sup>APCTP)

**C10.04\***

**Higher-Order Topological Superconductivity for 1T'-MoTe<sub>2</sub>** / KANG Myungjun<sup>1,6</sup>, LEE Sangyun<sup>2,3</sup>, KIM Duk Y.<sup>4</sup>, KIM Jihyun<sup>2</sup>, CHO Suyeon<sup>5</sup>, CHEON Sang Mo\*<sup>1,6</sup>, PARK Tuson<sup>2</sup> (<sup>1</sup>Department of Physics, Hanyang University, <sup>2</sup>Center for Quantum Materials and Superconductivity, Sungkyunkwan University, <sup>3</sup>Los Alamos National Laboratory, USA, <sup>4</sup>Agency for Defense Development, <sup>5</sup>Division of Chemical Engineering and Material Science, Ewha Womans University, <sup>6</sup>Research Institute for Natural Science and High Pressure, Hanyang University)

**C11.03\***

**Observation of hidden domain and polar structures in Bi<sub>2</sub>WO<sub>6</sub> thin films and their electric properties** / KWON Yong-Jun<sup>1,3</sup>, YEO Youngki<sup>1,3</sup>, KIM Min-Su<sup>2</sup>, KIM Yong-Jin<sup>1,3</sup>, PARK Heung-Sik<sup>1,3</sup>, KIM Jaegyu<sup>1,3</sup>, CHOI Si-Young<sup>2,4,5</sup>, YANG Chan-Ho\*<sup>1,3</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Center for Lattice Defectronics, KAIST, <sup>3</sup>Materials Science and Engineering, POSTECH, <sup>4</sup>Semiconductor Engineering, POSTECH, <sup>5</sup>Center of Van der Waals Quantum Solids, IBS)

**C11.05\***

**Understanding oxygen defect transport in Ca-doped bismuth ferrite thin films** / SUH Jeonghun<sup>1,2</sup>, PARK Heung-Sik<sup>1,2</sup>, KIM Boram<sup>1</sup>, LIM Ji Soo<sup>1,2</sup>, CHO Sungjae<sup>1</sup>, YANG Chan-Ho\*<sup>1,2,3</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Center for Lattice Defectronics, KAIST, <sup>3</sup>KAIST Institute for the NanoCentury, KAIST)

**D2.01\***

**Status of differential Drell-Yan cross section measurement with the CMS detector** / YOO Hwidong\*<sup>1</sup>, HWANG Kyuyeong<sup>1</sup>, LEE Kyeongpil<sup>2</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of Physics, Université Libre de Bruxelles, Belgium)

**D3.05\***

**Capture of Inelastic Dark Matter in white dwarves** / SCOPEL Stefano\*<sup>1</sup>, VELASCO-SEVILLA Liliana<sup>1</sup>, KAR Arpan<sup>1</sup>, BISWAS Anirban<sup>2</sup>, KIM Hyomin<sup>1</sup> (<sup>1</sup>Department of Physics, Sogang University, <sup>2</sup>Department of Physics, Yonsei University)

**D3.07\***

**Non-thermal WIMPy Baryogenesis with Primordial Black Hole** / LKHAGVADORJ Erdenebulgan\*<sup>1</sup>,

CHOI Ki-Young<sup>\*1</sup>, KIM Jongkuk<sup>2</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University, <sup>2</sup>School of Physics, KIAS)

#### D5.02\*

**Manifestation of Laser Resonance Chromatography on Lu<sup>+</sup> ions** / KIM Eunkang<sup>\*1,2,4</sup>, BLOCK Michael<sup>1,2,3</sup>, JANA Biswajit<sup>1,2</sup>, RAEDER Sebastian<sup>2,3</sup>, RAMANANTOANINA Harry<sup>1</sup>, RICKERT Elisabeth<sup>1,2,3</sup>, ROMERO Elisa Romero<sup>1,2,3</sup>, LAATIAOUI Mustapha<sup>1,2</sup> (<sup>1</sup>Department of Chemistry, Johannes Gutenberg University of Mainz, Germany, <sup>2</sup>SHE, Helmholtz-Institut Mainz, Germany, <sup>3</sup>Schwerionenforschung, GSI Helmholtzzentrum, Germany, <sup>4</sup>Department of Chemistry, UNIST)

#### D7.04\*

**Diquarks and the production of charmed baryons** / LEE Su Houn<sup>g</sup><sup>\*1</sup>, YUN Hyeongock<sup>1</sup>, NOH Sungsik<sup>1</sup>, LIM Sanghoon<sup>2</sup>, SONG Taesoo<sup>3</sup>, HONG Juhee<sup>1</sup>, PARK Aaron<sup>1</sup>, DÖNIGUS Benjamin<sup>4</sup> (<sup>1</sup>Yonsei University, <sup>2</sup>Department of Physics, Pusan National University, <sup>3</sup>Theory Division, GSI Helmholtzzentrum, Germany, <sup>4</sup>Institut für Kernphysik, Johan Wolfgang Goethe-Universität, Germany)

#### D9.07\*

**A hidden route of protein aging** / KIM Seoyoon<sup>1</sup>, KIM Eojin<sup>1</sup>, PARK Mingyu<sup>1</sup>, KIM Seong ho<sup>1</sup>, SADONGO Victor Wedia<sup>1</sup>, WIJESINGHE Wijesinghelage Chandima Bhashini<sup>1</sup>, LEE Chaiheon<sup>1</sup>, CHOI Jeong-Mo<sup>2</sup>, KIM Byung gyu<sup>3</sup>, KWON Tae Hyuk<sup>1,4</sup>, MIN Seung kyu<sup>1</sup>, MIN Duyoung<sup>\*1,4</sup> (<sup>1</sup>School of Natural Science, UNIST, <sup>2</sup>Department of Chemistry and Chemistry Institute for Fundamental Materials, Pusan National University, <sup>3</sup>Center for Genomic Integrity, IBS, <sup>4</sup>Center for Wave Energy Material, UNIST)

#### D11.04\*

**Clean realization of Hund physics near the Mott transition: NiS<sub>2</sub> under pressure** / PARK Ina<sup>1</sup>, JANG Bo Gyu<sup>2</sup>, KIM Dongwook<sup>1</sup>, SHIM Ji Hoon<sup>\*1</sup>, KOTLIAR Gabriel<sup>3,4</sup> (<sup>1</sup>Department of Chemistry, POSTECH, <sup>2</sup>Theoretical Division, Los Alamos National Laboratory, USA, <sup>3</sup>Condensed Matter Physics and Materials Science Department, Brookhaven National Laboratory, USA, <sup>4</sup>Physics and Astronomy Department, Rutgers University, USA)

#### D13.04\*

**Gate dependent magnetoresistance and Hall resistance of polar semimetal WTe<sub>2</sub>** / HWANG Eunji<sup>1</sup>, YANG Heejun<sup>\*1</sup> (<sup>1</sup>Department of Physics, KAIST)

#### D16.03\*

**Carbon Substitutional Defects in Monolayer hBN and their Effects on Graphene/hBN Heterostructure** / PARK Sunho<sup>1</sup>, KWON Young-Kyun<sup>\*1</sup> (<sup>1</sup>Department of Physics, Kyung Hee University)

#### E2.04\*

**Exploring lepton flavor violation phenomena of the Z and Higgs bosons at electron-proton colliders** / LEE Soojin<sup>\*1</sup>, SONG Jeonghyeon<sup>1</sup>, KIM Jinheung<sup>1</sup>, JUEID Adil<sup>2</sup>, WANG Daohan<sup>1</sup>

(<sup>1</sup>Department of Physics, Konkuk University, <sup>2</sup>Center for Theoretical Physics of the Universe, IBS)

#### E4.04\*

**Searches for dark matter signals with high-energy neutrinos in the IceCube Neutrino Telescope**

/ KANG Woosik<sup>\*1</sup>, ROTT Carsten<sup>1,2</sup>, JEONG Minjin<sup>1</sup>, TOENNIS Christoph<sup>1</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University, <sup>2</sup>Department of Physics and Astronomy, University of Utah, USA)

#### E6.01\*

**A theoretical and numerical approach into high-efficiency plasma oscillator for next-generation THz-driven electron linear acceleration** / LEE Jaeho<sup>1</sup>, 박도현<sup>1</sup>, KUMAR Manoj<sup>1</sup>, HUR Min Sup<sup>\*1</sup>

(<sup>1</sup>Department of Physics, UNIST)

#### E8.02\*

**Quantum Computation of Maximum Independent Set Problem on King's Graph of over Hundred Rydberg Atoms** / KIM Kangheun<sup>1</sup>, KIM Minhyuk<sup>2</sup>, PARK JuYoung<sup>1</sup>, AHN Jaewook<sup>\*1</sup>

(<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Department of Physics, Korea University)

#### E11.02\*

**First-principles study on electronic structure changes in MA<sub>3</sub>Sb<sub>2</sub>I<sub>9</sub> during annealing, cooling, and reannealing** / KWON Young-Kyun<sup>\*1</sup>, YOO Seungwoo<sup>1</sup> (<sup>1</sup>Department of Physics, Kyung Hee University)

#### E12.04\*

**Unraveling in-depth recombination mechanisms in flexible kesterite thin film solar cells** / PARK Ha Kyung<sup>1</sup>, SON Dae-Ho<sup>2</sup>, SUNG Shi-Joon<sup>2</sup>, HWANG Dae-Kyu<sup>2</sup>, LEE Jaebaek<sup>2</sup>, JEON Dong-Hwan<sup>2</sup>, CHO Yunae<sup>1</sup>, KIM Dae-Hwan<sup>2</sup>, KANG Jin-Kyu<sup>2</sup>, YANG Kee-Jeong<sup>2</sup>, JO William<sup>\*1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University, <sup>2</sup>Division of Energy Technology, DGIST)

#### E13.02\*

**Realizing High-Concentration Coalesced Vanadium Doping in Monolayer MoS<sub>2</sub>: Toward High-Performance Hydrogen Evolution Catalysis** / SON Eunbin<sup>2</sup>, SEO Jihyung<sup>2</sup>, PARK Hyesung<sup>\*1</sup> (<sup>1</sup>KU-KIST Graduate School of Converging Science and Technology, Korea University, <sup>2</sup>Materials Science and Engineering, UNIST)

#### E13.04\*

**Visualization of local mechanical properties in Moiré graphene** / YANG Heejun<sup>\*1</sup>, SANGSU Yer<sup>1</sup>, KIM Dohyun<sup>1</sup> (<sup>1</sup>Department of Physics, KAIST)

**E14.02\***

**The optical properties study of varied thickness for InGaAs/AlInAs superlattice structures** / HA Jae Du<sup>1</sup>, KANG Taein<sup>1</sup>, JO Hyun-Jun<sup>1</sup>, PARK Gyoung Du<sup>1</sup>, KIM Jong Su<sup>\*1</sup>, LEE Seunghyun<sup>2</sup>, KRISHNA Sanjay<sup>2</sup> (<sup>1</sup>Yeungnam University, <sup>2</sup>Department of Electrical and Computer Engineering, Ohio State University, USA)

**F3.01\***

**Supersymmetric Cardy Formula and the Weak Gravity Conjecture in AdS/CFT** / CHO Minseok<sup>\*1</sup>, CHOI Sunjin<sup>\*2</sup>, LEE Ki-Hong<sup>\*1</sup>, SONG Jaewon<sup>\*1</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>School of Physics, KIAS)

**F5.04\***

**Electrically tunable single plexcitonic emitter at room temperature** / LEE Hyeongwoo<sup>1</sup>, WHETTEN Benjamin G.<sup>2</sup>, KIM Byong Jae<sup>3</sup>, WOO Ju Young<sup>4</sup>, KOO Yeonjeong<sup>1</sup>, BAE Jinhyuk<sup>1</sup>, KANG Mingu<sup>1</sup>, MOON Taeyoung<sup>1</sup>, JOO Huitae<sup>1</sup>, JEONG Sohee<sup>3</sup>, LIM Jaehoon<sup>3</sup>, EFROS Alexander L.<sup>5</sup>, RASCHKE Markus B.<sup>2</sup>, PELTON Matthew<sup>6</sup>, PARK Kyoung-Duck<sup>\*1</sup> (<sup>1</sup>Department of Physics, POSTECH, <sup>2</sup>Department of Physics and JILA, University of Colorado at Boulder, USA, <sup>3</sup>Department of Energy Science, Sungkyunkwan University, <sup>4</sup>Digital Transformation R&D Department, KITECH, <sup>5</sup>Naval Research Laboratory, USA, <sup>6</sup>Department of Physics, University of Maryland, Baltimore County (UMBC), USA)

**F10.05\***

**Revealing inverted chirality of hidden domain wall states in multiband systems without topological transition** / CHEON Sang Mo<sup>\*1,3</sup>, KIM Tae-Hwan<sup>2</sup>, HAN Sang-Hoon<sup>1,3</sup>, JEONG Seung-Gyo<sup>2</sup> (<sup>1</sup>Department of Physics, Hanyang University, <sup>2</sup>Department of Physics, POSTECH, <sup>3</sup>Research Institute for Natural Science and High Pressure, Hanyang University)

**G5.05\***

**고출력 방사형/방위형 레이저 빔 생성** / OH Ye Jin<sup>1,2</sup>, PARK Eun Kyoung<sup>1,2</sup>, PARK In Chul<sup>1,2</sup>, KIM Ji Won<sup>\*1,2</sup>, MUZIK Jiri<sup>3</sup>, KOSHIBA Yuya<sup>3</sup>, SIKOCINSKI Pawel<sup>3</sup>, MOCEK Tomas<sup>3</sup> (<sup>1</sup>Hanyang University ERICA, <sup>2</sup>BK21 Four ERICA-ACE center, Hanyang University, <sup>3</sup>Thin Disk Lasers, HiLASE Centre, Institute of Physics of the Czech Academy of Sciences, Czech)

**G8.04\***

**Rydberg atom collisions by optical tweezer accelerator** / AHN Jaewook<sup>\*1</sup>, HWANG Han Sub<sup>1</sup>, HWANG Sunhwa<sup>1</sup> (<sup>1</sup>Department of Physics, KAIST)

#### G9.05\*

**Percolation transitions in spatial multiplex networks with long-range links** / SON Gangmin<sup>1</sup>, HA Meesoon<sup>\*2</sup>, JEONG Hawoong<sup>\*1,3</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Department of Physics Education, Chosun University, <sup>3</sup>Center of Complex Systems, KAIST)

#### G9.06\*

**Detecting breakdown nodes in power grids via Graph Neural Networks** / PARK Sangjoon<sup>1</sup>, KIM Cook Hyun<sup>1</sup>, KAHNG Byungnam<sup>\*1</sup> (<sup>1</sup>Department of Energy Engineering, KENTECH)

#### G16.04\*

**Direct Observation of Acoustic Shape Deformation of Gold Nanorods via Localized Surface Plasmon Control** / SONG Changyong<sup>\*1,2,3</sup>, PARK Eunyoung<sup>1,2,3</sup>, HWANG Junha<sup>1,2,3</sup>, YOUNG Shin Jae<sup>4</sup>, LEE Sung Yun<sup>1,2,3</sup>, LEE Heemin<sup>1,2,3</sup>, HEO Seungpil<sup>1,2,3</sup>, NAM Daewoong<sup>4</sup>, KIM Sangsoo<sup>4</sup>, KIM Min Seok<sup>4</sup>, EOM In Tae<sup>4</sup>, NOH Do Young<sup>4</sup> (<sup>1</sup>POSTECH, <sup>2</sup>Center for Ultrafast Science on Quantum Matter, Max Planck POSTECH Korea Research Initiative, <sup>3</sup>Photon Science Center, POSTECH, <sup>4</sup>Pohang Accelerator Laboratory, POSTECH)

#### H1.04\*

**물리학 기초학력 보장을 위한 진단도구 개발 및 타당화** / YOON HyunJu<sup>\*1</sup>, KANG Nam-Hwa<sup>1</sup> (<sup>1</sup>Department of Physics Education, Korea National University of Education)

#### H2.03\*

**Module assembly and the plan for full-size module of the dual-readout calorimeter for the future  $e^+e^-$  colliders** / YOO Hwidong<sup>\*1</sup>, DO Hyunsuk<sup>2</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>2</sup>, KO Sanghyun<sup>3</sup>, KWON Hyejin<sup>3</sup>, KIM Doyeong<sup>4</sup>, LEE Hyupwoo<sup>4</sup>, LEE Jason<sup>4</sup>, LEE Yunjae<sup>4</sup>, SON Youngwan<sup>4</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 Sungwon<sup>1</sup>, KIM Tongil<sup>1</sup>, PARK Hyesung<sup>1</sup>, KIM Dongwook<sup>5</sup>, KWON Nahye<sup>5</sup>, LEE Woochan<sup>5</sup>, KIM Yongjun<sup>6</sup>, LIM Sanghoon<sup>6</sup>, RYU Jaehyeok<sup>6</sup>, BAE Joonsuk<sup>7</sup>, KIM Beomkyu<sup>7</sup>, LEE Hyungjun<sup>7</sup>, JANG Yoonjun<sup>8</sup>, JEONG Jinryong<sup>8</sup>, KIM Minsuk<sup>8</sup>, CHOI Suyong<sup>9</sup>, CHEON Byunggu<sup>10</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Department of Physics, Kyungpook National University, <sup>3</sup>Department of Physics, Seoul National University, <sup>4</sup>Department of Physics, University of Seoul, <sup>5</sup>Medical Physics and Biomedical Engineering Lab, Yonsei University Severance, <sup>6</sup>Department of Physics, Pusan National University, <sup>7</sup>Department of Physics, Sungkyunkwan University, <sup>8</sup>Department of Physics, Gangneung Wonju National University, <sup>9</sup>Department of Physics, Korea University, <sup>10</sup>Department of Physics, Hanyang University)

#### H2.07\*

**The DAQ system of the dual-readout calorimeter for future  $e^+e^-$  colliders in 2023 test beam at**



**CERN** / 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>, PARK Hyesung<sup>1</sup>, DO Hyunsuk<sup>2</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 Youngwan<sup>5</sup>, KIM Dongwook<sup>6</sup>, KWON Nahye<sup>6</sup>, LEE Woochan<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>, JANG Yoonjun<sup>9</sup>, JEONG Jinryong<sup>9</sup>, KIM Minsuk<sup>9</sup>, CHOI Suyong<sup>10</sup>, CHEON Byunggu<sup>11</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>Cancer Center, Yonsei Severance Hospital, <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, Korea University, <sup>11</sup>Department of Physics, Hanyang University)

### H3.02\*

**High-Temperature Superconducting Cavities for CAPP's Main Axion eXperiment (MAX)** / LEE Jiwon<sup>1,2</sup>, AHN Danho<sup>2</sup>, KWON Ohjoon<sup>\*2</sup>, BYUN HeeSu<sup>2</sup>, PARK Seongtae<sup>2</sup>, KIM Jinsu<sup>2</sup>, CHUNG Woohyun<sup>2</sup>, SEMERTZIDIS Yannis K.<sup>1,2</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>CAPP, IBS)

### H3.06\*

**High-frequency cavity designs for the CAPP-12TB experiment** / YOUN SungWoo<sup>\*1</sup>, JEONG Junu<sup>1</sup>, KIM Younggeun<sup>1</sup>, BAE SungJae<sup>1,2</sup> (<sup>1</sup>Center for Axion and Precision Physics Research, IBS, <sup>2</sup>Department of Physics, KAIST)

### H6.01\*

**Microwave-driven miniature plasma plume for space propulsion** / KIM Kyungtae<sup>1</sup>, CHAI Kil-Byoung<sup>3</sup>, YUN Gunsu<sup>\*1,2</sup> (<sup>1</sup>Division of Advanced Nuclear Engineering, POSTECH, <sup>2</sup>Department of Physics, POSTECH, <sup>3</sup>Nuclear Physics Application Research Division, KAERI)

### H7.04\*

**Searching for medium-induced jet quenching effects in small collision systems with ALICE** / LIM SangHoon<sup>\*1</sup>, RYU Jaehyeok<sup>1</sup> (<sup>1</sup>Department of Physics, Pusan National University)

### H7.06\*

**Handling of the underlying event in jet mass and di-jet mass measurements in heavy-ion collisions** / KANG Jeongmyung<sup>1</sup>, OH Saehanseul<sup>\*1,2</sup> (<sup>1</sup>Department of Physics and Astronomy, Sejong University, <sup>2</sup>Nuclear Science Division, Lawrence Berkeley National Laboratory, USA)

### H9.04\*

**Anomalous relaxation of a Brownian particle in active bath** / BAHNG Sehoon<sup>1</sup>, GHIM Cheol-Min<sup>\*1</sup>

(<sup>1</sup>Department of Physics, UNIST)

#### H13.04\*

**Chiral transport of valley-polarized exciton-polaritons in h-BN/WS<sub>2</sub>/h-BN waveguide cavities /** JUNG Jin-Woo<sup>1</sup>, KIM Jiyeon<sup>1</sup>, LEE Young-Jun<sup>1</sup>, KANG Jan-Won<sup>2</sup>, CHO Chang-Hee\*<sup>1</sup> (<sup>1</sup>Department of Physics and Chemistry, DGIST, <sup>2</sup>Department of Physics, Mokpo National University)

#### H13.05\*

**Approach for reproducible and high-quality perovskites in workable temperature region /** KIM Sung Hun<sup>1</sup>, HEO Dong Gwon<sup>1</sup>, LEE Hong Seok\*<sup>1</sup> (<sup>1</sup>Department of Physics, Jeonbuk National University)

#### H14.01\*

**Gate-tunable synaptic devices based on conductive bridges in two-dimensional CrPS<sub>4</sub> /** HONG Heemyoung<sup>1</sup>, YANG Heejun\*<sup>1</sup> (<sup>1</sup>Department of Physics, KAIST)

#### H14.02\*

**Ultrathin Skin-attachable TiO<sub>2</sub> Synaptic Array Integrated with an Organic Proximity Sensor for Real-time Finger Gesture Recognition /** CHO Haein<sup>1</sup>, LEE Inho<sup>2</sup>, JANG Jingon<sup>1</sup>, KIM Jae-hyun<sup>2</sup>, LEE Hanbee<sup>3</sup>, PARK Sungjun<sup>2,3</sup>, WANG Gunuk\*<sup>1,4,5</sup> (<sup>1</sup>KU-KIST Graduate School of Converging Science and Technology, Korea University, <sup>2</sup>Department of Intelligence Semiconductor Engineering, Ajou University, <sup>3</sup>Department of Electrical and Computer Engineering, Ajou University, <sup>4</sup>Department of Integrative Energy Engineering, Korea University, <sup>5</sup>Center for Neuromorphic Engineering, KIST)

#### H15.05\*

**Towards highly emissive, thermally stable and low threshold amplified spontaneous emission from halide perovskite thin films /** LEE Gayoung<sup>1</sup>, ROH Kwangdong\*<sup>1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University)

#### I2.02\*

**SND@SHiP as tau neutrino short-baseline experiment /** CHOI Ki-Young\*<sup>1</sup>, KIM Sung Hyun<sup>2</sup>, KIM Yeong Gyun<sup>4</sup>, LEE Kang Young<sup>2</sup>, LEE Kyong Sei<sup>3</sup>, PARK Byung Do<sup>2</sup>, SOHN Jong Yoon<sup>2</sup>, YOO Seong Moon\*<sup>1</sup>, YOON Chun Sil<sup>2</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University, <sup>2</sup>Department of Physics Education and RINS, Gyeongsang National University, <sup>3</sup>CENuM, Korea University, <sup>4</sup>Department of Science Education, Gwangju National University of Education)

#### I3.05\*

**Experimental Design for Korea Experiment on Magnetic Monopole (KAEM) in Low-mass, Low-magnetic Charge Region: GEANT4 Simlulation Results of a Magnetic Bottle to Offset Reduced**

**Generation Efficiency from a Thin Target** / LEE Junghyun<sup>\*1</sup>, BYEON HeeJeong<sup>1</sup>, DO HyeonSeok<sup>1</sup>, HUH Changgi<sup>1</sup>, KIM Bobae<sup>1</sup>, LEE Sehwook<sup>1</sup>, HAUPTMAN John M<sup>2</sup>, RYU MinSang<sup>3</sup> (<sup>1</sup>Department of Physics, Kyungpook National University, <sup>2</sup>The Center for High Energy Physics, Kyungpook National University, <sup>3</sup>Department of Physics and Astronomy, Iowa State University, USA)

**I5.07\***

**Terahertz Wave Applications via Electrically Tunable Graphene Metasurface** / JEONG Sodam<sup>1</sup>, PARK Hyunwoo<sup>1</sup>, PARK Hyeonggi<sup>1</sup>, BAEK Soojeong<sup>2</sup>, KIM Teun-Teun<sup>\*1</sup> (<sup>1</sup>Department of Physics, University of Ulsan, <sup>2</sup>Mechanical Engineering, KAIST)

**I7.02\***

**Status of isospin dependency of collective flow in  $^{129,124}\text{Xe} + ^{124,112}\text{Sn}$  collisions at 100AMeV** / NAM Seon Ho<sup>1</sup>, HONG Byungsik<sup>\*1</sup> (<sup>1</sup>Department of Physics, Korea University)

**I7.04\***

**Performance test of CsI(Tl) crystals for the Subthreshold Pion Production Experiment at RAON (SUPER)** / KIM YoungJun<sup>1</sup>, AHN Jung Keun<sup>\*1</sup> (<sup>1</sup>Department of Physics, Korea University)

**I12.03\***

**Magnon-mediated thermal phonon control in magnetic insulators** / KIM Kab-Jin<sup>\*1</sup>, LEE Geun-Hee<sup>1</sup>, VAN Phuoc Cao<sup>2</sup>, JEONG Jong Ryul<sup>2</sup> (<sup>1</sup>Department of Physics, KAIST, <sup>2</sup>Department of Material Science and Engineering, Chungnam National University)

**I15.02\***

**Photoinduced surface degradation mechanism of two-dimensional Ruddlesden-Popper perovskite and its passivation by charge extraction** / KIM Kitae<sup>1,2,3</sup>, PARK Chanhui<sup>3</sup>, CHA Eunseo<sup>3</sup>, KANG Donghee<sup>1,2</sup>, PARK Jeehong<sup>1,2</sup>, BLUMSTENGEL Sylke<sup>4</sup>, MORALES Nicolas Zorn<sup>4</sup>, LIST-KRATOCHVIL Emil J.W.<sup>4</sup>, CHO Sang Wan<sup>1</sup>, LEE Hyunbok<sup>\*5</sup>, PARK Soohyung<sup>\*3</sup>, YI Yeonjin<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, Yonsei University, <sup>2</sup>Van der Waals Materials Research Center, Yonsei University, <sup>3</sup>Advanced Analysis and Data Center, KIST, <sup>4</sup>Humboldt-Universität zu Berlin, Institute für Physik, Institute für Chemie & IRIS Adlershof, Germany, <sup>5</sup>Department of Physics, Kangwon National University)

**J2.02\***

**Simulation study for measuring position and energy of few hundreds MeV carbon beam used in therapy** / YOO Hwidong<sup>\*1</sup>, EO Yun<sup>1</sup>, CHO Guk<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 Sungwon<sup>1</sup>, KIM Tongil<sup>1</sup>, PARK Hyesung<sup>1</sup>, DO Hyunsuk<sup>2</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>, LEE Woochan<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>, JANG Yoonjun<sup>9</sup>, JEONG JinYong<sup>9</sup>, KIM Minsuk<sup>9</sup>, CHOI Suyong<sup>10</sup>, CHEON Byunggu<sup>11</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, 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, Korea University, <sup>11</sup>Department of Physics, Hanyang University)

### J3.02\*

**CP violation and mass hierarchy in the neutrino sector from T2HK and KNO** / PARK Jong-Chul<sup>\*1</sup>, KIM Taeyeong<sup>1</sup> (<sup>1</sup>Department of Physics, Chungnam National University)

### J4.03\*

**Atomic structure characterization of potential coating material of A+LIGO using ePDF and FEM** / KIM Minhyo<sup>1</sup>, LEE Kyung-ha<sup>\*1</sup> (<sup>1</sup>Department of Physics, Sungkyunkwan University)

### J7.05\*

**Early investigation of the MVTX commissioning** / KIM Jaehyun<sup>1</sup>, KWON Youngil<sup>\*1</sup> (<sup>1</sup>Department of Physics, Yonsei University)

### J9.03\*

**Divergence of Differential Capacitance at Electrodes: A Statistical Field Theory Approach with Coulomb and Yukawa Potential** / LEE YeongKyu<sup>1</sup>, JHO Yong Seok<sup>\*1</sup> (<sup>1</sup>Department of Physics, Gyeongsang National University)

### J11.05\*

**Ultrafast dynamics of charge ordered states in Ir(Te,Se)<sub>2</sub>** / GAO Hongchen<sup>1</sup>, SINGH Palwinder<sup>1</sup>, RULI Fardiman<sup>1</sup>, OH Yoon Seok<sup>2</sup>, WON Choongjae<sup>3</sup>, CHEONG Sang-Wook<sup>4</sup>, KIM Kyungwan<sup>\*1</sup> (<sup>1</sup>Chungbuk National University, <sup>2</sup>Department of Physics, UNIST, <sup>3</sup>Department of Physics, POSTECH, <sup>4</sup>Department of Physics, Rutgers University, USA)

### J12.01\*

**First-principles theory of quantum spin decoherence in transition metal dichalcogenides** / PARK Taejoon<sup>1,2</sup>, PARK Huijin<sup>1,2</sup>, LEE Jaewook<sup>1,2</sup>, SEO Hosung<sup>\*1,2</sup> (<sup>1</sup>Department of Physics, Ajou University, <sup>2</sup>Department of Energy Systems Research, Ajou University)

### J12.07\*

**Qubit manipulation of trapped Yb<sup>+</sup> ions** / CHOI Taeyoung<sup>\*1</sup>, KIM Hyerin<sup>1</sup>, YOO Jieun<sup>1</sup>, KIM

Hyunsoo<sup>1</sup>, LEE HYE IN<sup>1</sup> (<sup>1</sup>Department of Physics, Ewha Womans University)

**J15.04\***

**High-temperature Chemiresistive and Gaschromic Hydrogen Gas Sensor Using Vanadium Oxide**

**Film** / SON Yeongjun<sup>1</sup>, LEE Dooyong<sup>2</sup>, LEE Jisung<sup>1,3</sup>, SONG Sehwan<sup>4</sup>, LIM Si-Heon<sup>5</sup>, HAN Seongheoon<sup>1</sup>, KIM Hyun-Ho<sup>5</sup>, PARK Sungkyun<sup>\*1</sup> (<sup>1</sup>Pusan National University, <sup>2</sup>Department of Physics Education, Kyungpook National University, <sup>3</sup>Center for Scientific Instrumentation, Korea Basic Science Institute, <sup>4</sup>Quantum Spin Team, Quantum Technology Institute, KRISS, <sup>5</sup>Department of Energy Engineering Convergence & School of Materials Science and Engineering, Kumoh National Institute of Technology)

**J16.02\***

**Phonon Decoupling in Brownmillerite SrFeO<sub>2.5</sub> and CaFeO<sub>2.5</sub>** / JIN Yeongrok<sup>1</sup>, LEE Jaekwang<sup>\*1</sup>

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

**J16.04\***

**Role of Symmetries on Surface Band Gap in MnBi<sub>2</sub>Te<sub>4</sub> with Antisite Defects: A First-Principles**

**Study** / JEONG Dameul<sup>1</sup>, YOON Mina<sup>2</sup>, KWON Young-Kyun<sup>\*1</sup> (<sup>1</sup>Department of Physics, Kyung Hee University, <sup>2</sup>Materials Science and Technology Division, Oak Ridge National Laboratory, USA)

**J16.08\***

**First-Principles Investigation of Phonon Transport Properties of Monolayer Fluorographene /**

HAN Seungbin<sup>1</sup>, LEE DongKyu<sup>1</sup>, LEE Sungwoo<sup>1,2</sup>, LEE Gun-Do<sup>1,2</sup>, JANG Hyejin<sup>\*1,2</sup> (<sup>1</sup>Materials Science and Engineering, Seoul National University, <sup>2</sup>Research Institute of Advanced Materials, Seoul National University)