

ISS2025 Conference Program

December 02, 2025

Plenary Sessions

08:30–09:15 | PL1 | Scanning SQUID-on-tip magnetic and thermal imaging: nanoscale probe of superconductivity and strongly correlated electronic systems

Speaker: *Eli Zeldov¹

Affiliation: 1. Weizmann Institute of Science(Israel)

Location: Convention Hall 1 (Room A)

Oral Sessions

PC Category

09:45–10:15 | PC1-01-INV | Bogoliubov quasiparticles and normal state gap in electron-doped cuprates

Speaker: *Makoto Hashimoto Hashimoto¹

Affiliation: 1. SLAC National Accelerator Lab(United States of America)

Location: Convention Hall 1 (Room A)

10:15–10:45 | PC1-02-INV | Spontaneous breaking of mirror symmetry in a cuprate beyond critical doping

Speaker: Saegyeol Jung^{1,2}, Byeongjun Seok^{1,2}, Chang jae Roh^{1,2}, Younsik Kim^{1,2}, Donghan Kim^{1,2}, Yeonjae Lee^{1,2}, San Kang^{1,2}, Shigeyuki Ishida³, Shik Shin⁴, Hiroshi Eisaki³, Tae Won Noh^{1,2}, Dongjoon Song^{1,5}, *Changyoung Kim^{1,2}

Affiliation: 1. Center for Correlated Electron Systems, Institute for Basic Science, Seoul, Korea.(Korea), 2. Department of Physics and Astronomy, Seoul National University, Seoul, Korea.(Korea), 3. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan(Japan), 4. Institute for Solid State Physics (ISSP), The University of Tokyo, Kashiwa, Japan.(Japan), 5. Stewart Blusson Quantum Matter Institute, The University of British Columbia, Vancouver, British Columbia, Canada.(Canada)

Location: Convention Hall 1 (Room A)

10:45–11:00 | PC1-03 | Pressure-induced resistivity upturn in stripe-ordered cuprate superconductor $\text{La}_{1.6-x}\text{Nd}_{0.4}\text{Sr}_x\text{CuO}_4$

Speaker: *Masamichi Nakajima¹, Ryo Motobayashi², Chieko Terakura¹, Yoshinori Tokura^{1,2,3}

Affiliation: 1. RIKEN Center for Emergent Matter Science(Japan), 2. Department of Applied Physics, The University of Tokyo(Japan), 3. Tokyo College, The University of Tokyo(Japan)

Location: Convention Hall 1 (Room A)

11:00–11:15 | PC1-04 | Momentum-dependent self-energy revealed by ARPES spectral analysis in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$: mechanism of the universal Fermi velocity

Speaker: *Teppei Yoshida¹, Daiya Shimonaka¹, Daiki Ootsuki², Atsushi Fujimori³, Hiroshi Kumigashira⁴, Kanta Ono⁵, Seiki Komiya⁶, Yoichi Ando⁷

Affiliation: 1. Kyoto University(Japan), 2. Okayama University(Japan), 3. National Tsing Hua University(Taiwan), 4. Tohoku University(Japan), 5. Osaka University(Japan), 6. Central Research Institute of Electric Power Industry(Japan), 7. University of Cologne(Germany)

Location: Convention Hall 1 (Room A)

11:15–11:45 | PC1-05-INV | Investigation of Superconductivity in Carrier-Doped Cuprates via Ab Initio Low-Energy Effective Hamiltonians

Speaker: *Ryui Kaneko¹

Affiliation: 1. Sophia University(Japan)

Location: Convention Hall 1 (Room A)

PC Category

15:00–15:30 | PC2-01-INV | Unified description of photoemission and quasiparticle-interference spectra for cuprate superconductors through a fractionalized-electron model

Speaker: *Shiro Sakai¹

Affiliation: 1. Faculty of Science and Technology, Sophia University(Japan)

Location: Convention Hall 1 (Room A)

15:30–15:45 | PC2-02 | Low- and High-Energy Charge Excitations of High-T_c Cuprates Probed by Resonant Inelastic X-Ray Scattering

Speaker: *Takami Tohyama¹

Affiliation: 1. Tokyo Univ. of Science(Japan)

Location: Convention Hall 1 (Room A)

15:45–16:15 | PC2-03-INV | Orbital FF/LO Phases in NbSe₂ Multilayers

Speaker: *Jianting Ye¹

Affiliation: 1. University of Groningen(Netherlands)

Location: Convention Hall 1 (Room A)

16:15–16:45 | PC2-04-INV | Unconventional Superconducting Quantum Criticality in Monolayer WTe₂

Speaker: *Sanfeng Wu¹

Affiliation: 1. Princeton University(United States of America)

Location: Convention Hall 1 (Room A)

16:45–17:15 | PC2-05-INV | Two-dimensional superconductivity and anomalous vortex dissipation in transition metal dichalcogenide-based superlattices

Speaker: *Xianhui Chen¹

Affiliation: 1. University of Science and Technology of China(China)

Location: Convention Hall 1 (Room A)

17:30–17:45 | PC3-01 | Dimensional crossover of in-plane vortex state in a 2H-NbSe₂ single crystalline flake

Speaker: *Tsutomu Nojima¹, Hirotaka Shirai¹

Affiliation: 1. Institute for Materials Research, Tohoku University(Japan)

Location: Convention Hall 1 (Room A)

17:45–18:15 | PC3-02-INV | Orbital Orders and Superconductivity in Anionic Honeycomb Superconductors La₂IRu₂ and La₂IOs₂

Speaker: *Hajime Ishikawa¹, Junichi Yamaura², Ryosuke Kurihara¹, Hajime Sagayama³, Mitsuaki Kawamura⁴

Affiliation: 1. Tokyo University of Science(Japan), 2. University of Tokyo(Japan), 3. High Energy Accelerator Research Organization(Japan), 4. Yokohama National University(Japan)

Location: Convention Hall 1 (Room A)

18:15–18:45 | PC3-03-INV | The Quest for High Temperature Superconducting Nickelates

Speaker: *Ariando Ariando¹

Affiliation: 1. National University of Singapore(Singapore)

Location: Convention Hall 1 (Room A)

ED Category

09:45–10:15 | ED1-01-INV | Development of scalable superconducting quantum processor in SKKU QFab

Speaker: *Yonuk Chong¹

Affiliation: 1. SungKyunKwan University (SKKU)(Korea)

Location: 107 (Room D)

10:15–10:45 | ED1-02-INV | Efficient Implementation of Arbitrary Two-Qubit Gates using Unified Control

Speaker: *Fei Yan¹

Affiliation: 1. Beijing Academy of Quantum Information Sciences(China)

Location: 107 (Room D)

10:45–11:15 | ED1-03-INV | Wideband and Compact Josephson Parametric Amplifier for Quantum Computing Applications

Speaker: *Yoshiro Urade¹

Affiliation: 1. AIST(Japan)

Location: 107 (Room D)

11:15–11:45 | ED1-04-INV | Cryogenic testbed system for superconducting quantum computers at AIST

Speaker: *HIROYUKI KAYANO¹

Affiliation: 1. National Institute of Advanced Industrial Science and Technology(Japan)

Location: 107 (Room D)

15:00–15:30 | ED2-01-INV | Enhanced photon number resolving techniques with transition edge sensors for quantum computing and quantum metrology at G-QuAT

Speaker: *DAIJI FUKUDA¹, Tetsuya Tsuruta¹

Affiliation: 1. National Institute of Advanced Industrial Science and Technology(Japan)
Location: 107 (Room D)

15:30–15:45 | ED2-02 | A TES based large area anticoincidence detector with silicon absorber, the newAthena CryoAC microcalorimeter

Speaker: *Lorenzo Ferrari Barusso^{1,2}, Federico Bianco^{1,2}, Edvige Celasco^{1,2}, Matteo De Gerona², Flavio Gatti^{1,2}, Daniele Grosso^{1,2}, Kifayat Niazi¹, Manuela Rigano^{1,2}, Matteo D'Andrea³, Giacomo Gorla³, Claudio Macculi³, Luigi Piro³, Andrea Argan⁴, Gabriele Minervini⁴, Guido Torrioli⁵

Affiliation: 1. University of Genova(Italy), 2. INFN Genova(Italy), 3. INAF IAPS Roma(Italy), 4. INAF HQ(Italy), 5. CNR IFN Roma(Italy)

Location: 107 (Room D)

15:45–16:00 | ED2-03 | A novel TES Readout Circuit Combining SQUID and RF-LNAs for Photon-Number-Resolution with sub-ns timing jitter

Speaker: *Ryutaro Matsumoto¹, Yuki Mitsuya², Hiroyuki Takahashi²

Affiliation: 1. Nuclear Engineering and Management, School of Engineering, UTokyo(Japan),
2. Institute of Engineering Innovation, School of Engineering, UTokyo(Japan)

Location: 107 (Room D)

16:00–16:15 | ED2-04 | Phonon-mediated superconducting LEKIDs with surface activated bonding technology for high-energy particle detection

Speaker: *Chiko Otani^{1,2}, Ryota Ito^{1,2}, Yuto Kamei¹, Toru Taino³, Satoru Mima⁴, Takunori Taira^{5,6}

Affiliation: 1. RIKEN RAP(Japan), 2. Tohoku University(Japan), 3. Saitama University(Japan),
4. NICT(Japan), 5. IMS(Japan), 6. RIKEN SPring-8(Japan)

Location: 107 (Room D)

16:15–16:30 | ED2-05 | Toward 400-million-pixel imaging using current-biased kinetic inductance detector

Speaker: *Takekazu Ishida¹, Hiroaki Shishido¹, The Dang Vu¹, Kenji M Kojima², Tomio Koyama¹

Affiliation: 1. Osaka Metropolitan University(Japan), 2. TRIUMF(Canada)

Location: 107 (Room D)

16:30–16:45 | ED2-06 | Measurement of magnetic field below 10 nT using a fluxgate IC sensor for cryogenic magnetic shield

Speaker: *Shigetomo Shiki¹, Go Fujii¹

Affiliation: 1. National Institute of Advanced Industrial Science and Technology(Japan)

Location: 107 (Room D)

17:00–17:30 | ED3-01-INV | Emerging Technologies for Superconducting Strip Photon Detectors

Speaker: *Shigehito Miki¹, Masahiro Yabuno¹, Shigeyuki Miyajima¹, Hirotaka Terai¹

Affiliation: 1. NICT(Japan)

Location: 107 (Room D)

17:30–17:45 | ED3-02 | High time resolution superconducting nanowire X-ray detector

Speaker: *Shuya Guo¹, Labao Zhang^{2,1}, Jian Chen^{2,1}, Peiheng Wu^{2,1}

Affiliation: 1. Purple Mountain Laboratories(China), 2. Nanjing University(China)

Location: 107 (Room D)

17:45–18:00 | ED3-03 | Reveal inhomogeneities in a superconducting nanowire by probing and mapping self-heating hotspots

Speaker: *Qingyuan Zhao¹

Affiliation: 1. Nanjing University(China)

Location: 107 (Room D)

WB Category

09:45–10:15 | WB1-01-INV | High-Jc Nb3Sn ultrafine superconducting wire fabricated by the Jelly-Roll process

Speaker: *Akihiro Kikuchi¹

Affiliation: 1. National Institute for Materials Science(Japan)

Location: 102 (Room B)

10:15–10:45 | WB1-02-INV | The development and heat treatment of Rutherford cables using ultrafine strands

Speaker: *Ian Pong¹, Akihiro Kikuchi², Najib Cheggour³, Andy Lin¹, Jean-Francois Croteau¹, Nandana Menon¹

Affiliation: 1. Lawrence Berkeley National Laboratory(United States of America), 2. National Institute for Materials Science(Japan), 3. National High Magnetic Field Laboratory, Florida State University(United States of America)

Location: 102 (Room B)

10:45–11:15 | WB1-03-INV | Examination and improvement of strain tolerance of MgB2 wires

Speaker: *Hideki Tanaka¹, Motomune Kodama¹, Takaaki Suzuki¹, Hiroshi Kotaki¹, Akiyoshi Matsumoto², Gen Nishijima²

Affiliation: 1. Hitachi, Ltd.(Japan), 2. National Institute for Material Science(Japan)

Location: 102 (Room B)

11:15–11:45 | WB1-04-INV | Low-loss, High Current Density HTS Conductor and Coils for AC and Fast Ramp Systems

Speaker: *Alexander Otto¹, A Bouthillette¹, B Bouchard¹, A Croteau¹, J Voccio², M Sumption³

Affiliation: 1. Solid Material Solutions LLC(United States of America), 2. Wentworth Institute of Technology(United States of America), 3. The Ohio State University(United States of

America)

Location: 102 (Room B)

15:00–15:30 | WB2-01-INV | Mass Production and Performance of SST REBCO Tape

Speaker: *Jiamin Zhu¹, Sikan Chen¹, Zhonghe Gao¹, Chao Zhang¹, Shuiliang Zhen¹, Xiaohui Lin¹, Pei Bai¹, Bai Song¹, Xuefeng Wang¹

Affiliation: 1. Shanghai Superconductor Technology Co., Ltd.(China)

Location: 102 (Room B)

15:30–16:00 | WB2-02-INV | Development of REBCO coated conductors and applications at Fujikura Ltd.

Speaker: *Shinji Fujita¹, Shogo Muto¹, Naonori Nakamura¹, Yutaka Adachi¹, Tetsuo Takemoto¹, Ryo Kikutake¹, Yasuhiro Iijima¹, Masanori Daibo¹

Affiliation: 1. Fujikura Ltd.(Japan)

Location: 102 (Room B)

16:00–16:15 | WB2-03 | A new product of Faraday Factory Japan: Mirai 2G HTS tapes with engineering current density up to 1500 A/mm² at 20K, 20T.

Speaker: *Roman Valikov¹, Anton Markelov¹, Ian Rossouw¹, Simon Dieter Hartlaub¹, Alexander Borisov¹, Kamil Etxagibel Begic¹, Marat Gaifullin¹, Valery Petrykin¹, Alexander Molodyk¹, Sergey Samoilentkov¹, Sergey Lee¹

Affiliation: 1. Faraday Factory Japan(Japan)

Location: 102 (Room B)

16:15–16:45 | WB2-04-INV | Manufacturing and development of REBCO HTS wires at SuperPower

Speaker: *Hisaki Sakamoto¹, Yifei Zhang¹, Gene Carota¹, Takao Hirai¹, Hirotsugu Nagata¹

Affiliation: 1. SuperPower Inc.(United States of America)

Location: 102 (Room B)

17:00–17:30 | WB3-01-INV | Large-Scale Manufacturing of Fusion-Grade REBCO Coated Conductors via Optimized PLD : Performance Enhancement and Cost-Reduction Strategies at SuNAM

Speaker: *SeungHyun Moon¹

Affiliation: 1. SuNAM Co. Ltd.(Korea)

Location: 102 (Room B)

17:30–17:45 | WB3-02 | Thermal Analysis of Solder-Free Sonic Welding Process Using Finite Element Method

Speaker: *Shinya Sera¹

Affiliation: 1. Dept. of Electrical Engineering, Kyushu Univ. (Japan)

Location: 102 (Room B)

17:45–18:00 | WB3-03 | Advancements in Buffer Tape Production for 2G-HTS Applications at Faraday Factory Japan

Speaker: *Deniz Sanal¹

Affiliation: 1. Faraday Factory Japan (Japan)

Location: 102 (Room B)

AP Category

09:45–10:15 | AP1-01-INV | Superconducting Accelerators for Proton Therapy: Overview and the Compact AVF Cyclotron SC230

Speaker: *Yuta Ebara¹

Affiliation: 1. Sumitomo Heavy Industries, Ltd.(Japan)

Location: 103 (Room C)

10:15–10:45 | AP1-02-INV | Development of a Compact Heavy-Ion Radiotherapy System

Speaker: *Shigeki Takayama¹

Affiliation: 1. Toshiba Energy Systems & Solutions Corporation(Japan)

Location: 103 (Room C)

10:45–11:00 | AP1-03 | Considerations on 1/f Flux Noise in High Temperature Superconductor based Magnets used for (Ultra) Low Field Magnetic Resonance Imaging

Speaker: *Pavel Povolni¹, Sergej Maltsev¹, Farnaz Tahouni Bonab², Friedemann Bullinger¹, Julius Steiglechner^{1,3}, Dieter Koelle², Reinhold Kleiner², Klaus Scheffler^{1,3}, Kai Buckenmaier¹

Affiliation: 1. High Field Magnetic Resonance Center - Max Planck Institute for Biological Cybernetics - 72076 Tübingen(Germany), 2. Physikalisches Institut - Center for Quantum Science (CQ) and LISA+ - University of Tübingen - 72076 Tübingen(Germany), 3.

Department for Biomedical Magnetic Resonance - University of Tübingen - 72076 Tübingen(Germany)

Location: 103 (Room C)

11:00–11:15 | AP1-04 | Review on the technology and application of all-superconducting high-field magnet

Speaker: *PENG GAO¹, Chao Zhou¹, Jinggang Qin¹, Fang Liu¹, Huajun Liu¹, Huan Jin¹, Xintao Zhang¹

Affiliation: 1. Hefei Institutes of Physical Science, Chinese Academy of Sciences(China)

Location: 103 (Room C)

11:15–11:30 | AP1-05 | 42 T miniature all-HTS magnets for high-field NMR applications

Speaker: *Chukun Gao^{1,2}, Pin-Hui Chen^{1,2}, Nicholas Alaniva², James Ellison², Snædís Björgvinsdóttir², Edward Saliba², Yanhui Hu², Ioannis Pagonakis², Alexander Däpp², Ronny Gunzenhauser², Michael Urban², Alexander Barnes²

Affiliation: 1. Resonance Exploration Technologies(Switzerland), 2. Department of Chemistry and Applied Biosciences, Eidgenössische Technische Hochschule

Zürich(Switzerland)

Location: 103 (Room C)

11:30–11:45 | AP1-06 | Design and construction of a small-scale layer-wound layer-insulation insert magnet with REBCO-coated conductors operating in a background magnetic field exceeding 15 T

Speaker: *J H Wan^{1,2}, Peng Gao¹, J G Qin¹

Affiliation: 1. Hefei Institutes of Physical Science. Chinese Academy of Science(China), 2. University of Science and Technology of China(China)

Location: 103 (Room C)

15:00–15:30 | AP2-01-INV | DC Superconducting Cables for present and future power needs

Speaker: *Antonio Morandi¹, Massimo Fabbri¹, Mattia Simonazzi¹, Emiliano Guerra¹

Affiliation: 1. University of Bologna(Italy)

Location: 103 (Room C)

15:30–16:00 | AP2-02-INV | SuperLink: 110 kV HTS Cable for Munich's Power Supply

Speaker: *Robert Georg Prinz¹, Wesley Tiago Batista de Sousa², Mathias Noe², Robert Bach³, Werner Prusseit⁴, Alexander Alekseev⁵, Dag Willén⁶

Affiliation: 1. SWM Services GmbH(Germany), 2. Karlsruhe Institute of Technology(Germany), 3. South Westphalia University(Germany), 4. Theva Dünnschichttechnik GmbH(Germany), 5. Linde AG(Germany), 6. NKT Cables(Germany)

Location: 103 (Room C)

16:00–16:30 | AP2-03-INV | Environmental Perspective of HTS Cable System Refer to Singapore Power Grid

Speaker: *Naoko Nakamura¹

Affiliation: 1. National Institute for Fusion Science(Japan)

Location: 103 (Room C)

16:30–16:45 | AP2-04 | Design and Experimental Validation of a High-Capacity DC Circuit Breaker for Protecting Superconducting Cables

Speaker: *Shuxing Ma¹, Xiang Bin¹, Qi Zhang¹, Zhiyuan Llu¹, Yingsan Geng¹, Jianghua Wang¹

Affiliation: 1. Xi'an Jiaotong University(China)

Location: 103 (Room C)

17:00–17:30 | AP3-01-INV | Nb₃Sn Conductor Development in Japan for Future High Field Accelerator Magnets

Speaker: *Michinaka Sugano¹

Affiliation: 1. High Energy Accelerator Research Organization (KEK)(Japan)

Location: 103 (Room C)

17:30–17:45 | AP3-02 | Development of Faro Shuffle Method for Multi-Tape Joints in Large-Current HTS Conductors Using Atmospheric-Pressure Plasma Surface

Treatment

Speaker: *Yuta Onodera¹, Yoshiro Narushima^{1,2}, Tomosumi Baba¹, Shinji Hamaguchi^{1,2}, Nagato Yanagi^{1,2}, Hirotaka Chikaraishi^{1,2}, Junichi Miyazawa³, Hiroki Chikuma³, Hitoshi Tamura³, Takuya Goto³

Affiliation: 1. National Institute for Fusion Science(Japan), 2. SOKENDAI(Japan), 3. Helical Fusion Co., Ltd.(Japan)

Location: 103 (Room C)

17:45–18:00 | AP3-03 | Experiment of a Double-Pancake Coil Wound by UROCOIC Conductor for Application in Helical Fusion Reactors

Speaker: *Yoshiro NARUSHIMA^{1,2}, Yuta Onodera¹, Shinji Hamaguchi^{1,2}, Tomosumi Baba¹, Nagato Yanagi^{1,2}, Chikaraishi Hirotaka^{1,2}, Junichi Miyazawa³, Chikuma Hiroki³, Hitoshi Tamura³, Takuya Goto³

Affiliation: 1. NIFS(Japan), 2. SOKENDAI(Japan), 3. Helical Fusion Co., Ltd.(Japan)

Location: 103 (Room C)

December 03, 2025

Plenary Sessions

08:30–09:15 | PL2 | High-Sensitivity Superconducting Mixers and Detectors for Terahertz Astronomy

Speaker: *Sheng-Cai SHI¹, Jing Li¹, Wen Zhang¹, Wei Miao¹

Affiliation: 1. Purple Mountain Observatory, Chinese Academy of Sciences(China)

Location: Convention Hall 1 (Room A)

17:15–18:00 | PL3 | High-current HTS cables for fusion: development status and prospects

Speaker: *Luigi Muzzi¹

Affiliation: 1. Superconductivity Laboratory, ENEA(Italy)

Location: Convention Hall 1 (Room A)

Oral Sessions

PC Category

09:45–10:15 | PC4-01-INV | Chiral Superconductivity in the Layered Pnictide BaPtAs_{1-x}Sb_x with a Honeycomb Network

Speaker: *Tadashi Adachi¹

Affiliation: 1. Department of Engineering and Applied Sciences, Sophia University(Japan)

Location: 107 (Room D)

10:15–10:45 | PC4-02-INV | Pressure-tuned superconducting state of CsV₃Sb₅ investigated via self-field critical current

Speaker: Wenyan Wang¹, Wei Zhang¹, Lingfei Wang¹, Xinyou Liu¹, Jianyu Xie¹, Siu Tung Lam¹, Chun Wai Tsang¹, Zheyu Wang¹, Tsz Fung Poon¹, Shanmin Wang², Kwing To Lai¹,

Jeffery L. Tallon³, *Swee K. Goh¹

Affiliation: 1. The Chinese University of Hong Kong(Hong Kong), 2. Southern University of Science and Technology(China), 3. Victoria University of Wellington(New Zealand)

Location: 107 (Room D)

10:45–11:00 | PC4-03 | Pressure-Driven Electronic Reconstruction and Anisotropy modulation in Kagome metals RV_6Sn_6 (R = Rare earth elements)

Speaker: *Rui Zhang¹, Jianfeng Li¹, Pingxiang Zhang¹, Xianghong Liu¹, Xiaofan Yang¹

Affiliation: 1. Northwest institute for non-ferrous metal research(China)

Location: 107 (Room D)

11:00–11:15 | PC4-04 | Cancelled

11:00–11:15 | PC4-05 | A Possible Superconductive Mechanism for Hydrides under Extreme Pressure with Room Temperature Superconductivity from Size Effect

Speaker: *Xiaozhi Hu¹

Affiliation: 1. University of Western Australia(Australia)

Location: 107 (Room D)

11:15–11:30 | PC4-06 | Effect of elemental substitution on La site in $\text{La}(\text{O}, \text{F})(\text{Bi}, \text{Sn})\text{S}_2$

Speaker: *Ryoya Tanabe¹, Yuto Miyake¹, Shogo Kuwahara¹, Tadataka Watanabe¹, Satoshi Demura¹

Affiliation: 1. CST, Nihon Univ.(Japan)

Location: 107 (Room D)

14:45–15:15 | PC5-01-INV | Tailoring the quantization of vortex bound states in iron based superconductors

Speaker: *Hai-Hu Wen¹

Affiliation: 1. Nanjing University(China)

Location: 107 (Room D)

15:15–15:30 | PC5-02 | Vortex-core states, conductance modulations and Lifshitz transition revealed by Scanning Tunneling Spectroscopy in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$

Speaker: *Ivan Maggio-Aprile¹, Tejas Singar¹, Christoph Renner¹

Affiliation: 1. University of Geneva - DQMP(Switzerland)

Location: 107 (Room D)

15:30–16:00 | PC5-03-INV | Vortex dynamics, magnetic irreversibility, and the critical state in ferromagnetic superconductor $\text{EuFe}_2(\text{As}_{1-x}\text{Px})_2$

Speaker: *Joseph Alec Wilcox¹, William Robert Fern¹, Lukas Schneider², Estefani

Marchiori², Vadim Plastovets³, Alexandre Buzdin³, Pardis Sahafi⁶, Andrew Jordan⁶, Raffi

Budakian⁶, Tong Ren⁴, Ivan Veshchunov⁴, Tsuyoshi Tamegai⁴, Sven Friedemann⁵, Martino

Poggio², Simon John Bending¹

Affiliation: 1. University of Bath(UK), 2. University of Basel(Switzerland), 3. University of Bordeaux(France), 4. The University of Tokyo(Japan), 5. University of Bristol(UK), 6.

University of Waterloo(Canada)
Location: 107 (Room D)

16:00–16:15 | PC5-04 | Skyrmion-superconducting vortex pairs in a chiral magnet-superconductor heterostructure

Speaker: *Xianggang Qiu¹

Affiliation: 1. Institute of Physics, Chinese Academy of Sciences(China)

Location: 107 (Room D)

16:15–16:30 | PC5-05 | Non-reciprocal transport caused by in-plane vortices in 2-dimensional superconductors with asymmetric barriers

Speaker: *Yuichiro Shiroki¹, Yusuke Kato^{1,2}

Affiliation: 1. Dept. of Phys., Univ. of Tokyo(Japan), 2. Dept. of Basic Sci., Univ. of Tokyo(Japan)

Location: 107 (Room D)

16:30–17:00 | PC5-06-INV | Anomalous Peak Effects in Superconductors with Splayed or Tilted Columnar Defects

Speaker: *Tsuyoshi Tamegai¹, Wenjie Li¹, Kanta Kato¹, Ayumu Takahashi¹, Yuto Kobayashi¹, Sunseng Pyon¹, Ryosuke Sakagami¹, Tadashi Kambara², Atsushi Yoshida², Satoru Okayasu³, Ataru Ichinose⁴

Affiliation: 1. Department of Applied Physics, The University of Tokyo(Japan), 2. Nishina Center, RIKEN(Japan), 3. Advanced Science Research Center, Japan Atomic Energy Agency(Japan), 4. Central Research Institute of Electric Power Industry, Electric Power Engineering Research Laboratory(Japan)

Location: 107 (Room D)

ED Category

09:45–10:15 | ED4-01-INV | Stochastic computing using superconductive random number generators

Speaker: *Yuki Yamanashi¹

Affiliation: 1. Yokohama National University(Japan)

Location: Convention Hall 1 (Room A)

10:15–10:45 | ED4-02-INV | Recent Progress in Design Automation of Superconductor Circuits

Speaker: *Lieve Schindler^{1,2}, Coenrad Fourie^{1,2}

Affiliation: 1. Stellenbosch University(South Africa), 2. SUN Magnetix(South Africa)

Location: Convention Hall 1 (Room A)

10:45–11:00 | ED4-03 | A method to analyze and improve AQFP sensitivity to trapped flux

Speaker: *Coenrad Johann Fourie¹

Affiliation: 1. Stellenbosch University(South Africa)

Location: Convention Hall 1 (Room A)

11:00–11:15 | ED4-04 | Demonstration of A Small-Area Unary Arithmetic Logic Unit using Single Flux Quantum Circuits

Speaker: *Zeyu Han¹, Nobuyuki Yoshikawa^{1,2,3}, Yuki Yamanashi^{1,2,3}

Affiliation: 1. Department of Electrical and Computer Engineering, Yokohama National University, 79-5 Tokiwadai, Hodogaya, Yokohama 240-8501, Japan(Japan), 2. Institute of Advanced Sciences, Yokohama National University, 79-5 Tokiwadai, Hodogaya, Yokohama 240-8501, Japan(Japan), 3. Institute for Multidisciplinary Sciences, Yokohama National University, 79-5 Tokiwadai, Hodogaya, Yokohama 240-8501, Japan(Japan)

Location: Convention Hall 1 (Room A)

11:15–11:30 | ED4-05 | Experimental Validation of Key Elemental Circuits for RSFQ All-Digital Phase Locked Loop

Speaker: *Yoshinao Mizugaki¹, Daiki Fukuyo¹

Affiliation: 1. The University of Electro-Communications(Japan)

Location: Convention Hall 1 (Room A)

11:30–11:45 | ED4-06 | Design and Evaluation of Single Flux Quantum Circuits with Josephson Inductors Fabricated by 1 kA/cm² Critical Current Density Process

Speaker: *Chikai Nakamura¹, Nobuyuki Yoshikawa^{1,2,3}, Yuki Yamanashi^{1,2,3}

Affiliation: 1. Yokohama National Univ.(Japan), 2. Institute of Advanced Sciences Yokohama National Univ.(Japan), 3. Institute for Multidisciplinary Sciences, Yokohama National Univ.(Japan)

Location: Convention Hall 1 (Room A)

15:00–15:30 | ED5-01-INV | Toward Large-Format Planar-Integrated Multi-Pixel SIS Heterodyne Receivers for Radio Astronomy

Speaker: *Wenlei Shan¹, Shohei Ezaki¹

Affiliation: 1. National Astronomical Observatory, Japan(Japan)

Location: 102 (Room B)

15:30–16:00 | ED5-02-INV | Physics of superconductors for haloscopes: the cases of NbTi, Nb₃Sn and Fe(Se,Te)

Speaker: Andrea Alimenti^{1,2}, Alessandro Magalotti^{1,2}, Nicola Pompeo^{1,2}, *Enrico Silva^{1,2}, Kostiantyn Torokhtii¹, Pablo Vidal García^{1,2}

Affiliation: 1. University Roma Tre(Italy), 2. INFN Sezione Roma Tre(Italy)

Location: 102 (Room B)

16:00–16:30 | ED5-03-INV | Expanding superposition bandwidth with frequency-modulated terahertz radiation from superconducting Josephson plasma emitter

Speaker: *Itsuhiro Takeya¹, Ryota Kobayashi¹, Rintaro Mori¹, Keitaro Sugimoto¹, Manabu Tsujimoto²

Affiliation: 1. Kyoto University(Japan), 2. AIST(Japan)

Location: 102 (Room B)

16:30–17:00 | ED5-04-INV | Development of RF Coil Using High-Temperature Superconductor for NMR

Speaker: *Takanori Fujita^{1,2}, Keita Sakuma¹, Ryoji Tanaka², Katsuyuki Toshima², Naoto Sekiya¹

Affiliation: 1. Yamanashi Univ.(Japan), 2. JEOL Ltd.(Japan)

Location: 102 (Room B)

WB Category

09:30–09:45 | WB8-02 | Influence of disorder on fundamental superconducting properties

Speaker: *Michael Eisterer¹, Alexander Bodenseher¹, Morteza Asiyaban¹, Raphael Unterrainer¹

Affiliation: 1. Atominstitut, TU Wien(Austria)

Location: 102 (Room B)

09:45–10:15 | WB4-01-INV | Progress of low-cost approach by Advanced MOCVD for high current REBCO conductors

Speaker: *Venkat Selvamanickam^{1,2}

Affiliation: 1. University of Houston(United States of America), 2. AMPeers LLC(United States of America)

Location: 102 (Room B)

10:15–10:45 | WB4-02-INV | The Transient Liquid Assisted Growth (TLAG) method for ultrafast growth of REBCO coated conductors

Speaker: *Teresa Puig¹, Xavier Obradors¹, Joffre Gutierrez¹, Roxana Vlad¹, Elzbieta Pach¹, Cornelia Pop¹, Kapil Gupta², Silvia Raisi¹, Carla Torres¹, Aiswarya Kethamkuzhi¹, Ona Mola¹, Emma Ghiara¹, Vittorio Bertini¹, Mahel Voulhoux¹, Lavinia Saltarelli¹, Diana Garcia¹, Susagna Ricart¹, Ramon Yanez³, Daniel Sanchez⁴, Jordi Farjas⁴, Eduardo Solano⁵, Laura Simonelli⁵

Affiliation: 1. ICMAB-CSIC(Spain), 2. ICN2(Spain), 3. UAB(Spain), 4. UG(Spain), 5.

ALBA(Spain)

Location: 102 (Room B)

10:45–11:15 | WB4-03-INV | A New Multifilament Method for Advanced Superconducting Tapes and Wires

Speaker: *Ryo Teranishi¹, Akiyoshi Matsumoto², Masayoshi Inoue³, Takumi Ikenoue⁴, Yusuke Sogabe⁴

Affiliation: 1. Kyushu Univ.(Japan), 2. National Institute for Materials Science(Japan), 3. Fukuoka Institute of Technology(Japan), 4. Kyoto Univ.(Japan)

Location: 102 (Room B)

11:15–11:30 | WB4-04 | Co-doping with BaSnO₃ and BaHfO₃ by Ultra-high Rate PLD Enabling Formation of High-density Nanocolumns in EuBa₂Cu₃O_{7-δ} Films

Speaker: *Yue Wu¹, Mengrui Zhao¹, Chunsheng Chen², Yuji Tsuchiya³, Tatsunori Okada⁴, Junyi Luo³, Satoshi Awaji³, Yue Zhao^{1,2}

Affiliation: 1. Shanghai Jiao Tong University(China), 2. SuperMag Tehcnology (Shanghai) Co., Ltd.(China), 3. Institute for Materials Research, Tohoku University(Japan), 4. Department of Materials Science and Engineering, Kyushu Institute of Technology(Japan)

Location: 102 (Room B)

11:30–11:45 | WB4-05 | Analysis of critical current in network-patterned YBa₂Cu₃O_{7-y} films using maximum flow problem

Speaker: *Ryoga Nagae¹, Tomoya Horide¹, Takuya Ohwa², Yutaka Yoshida¹

Affiliation: 1. Nagoya University(Japan), 2. Kyushu Institute of Technology(Japan)

Location: 102 (Room B)

14:45–15:15 | WB5-01-INV | Recent Progress on Insulated Magnets for Compact Fusion Devices at Commonwealth Fusion Systems

Speaker: *Charlie Sanabria¹

Affiliation: 1. Commonwealth Fusion Systems(United States of America)

Location: Convention Hall 1 (Room A)

15:15–15:45 | WB5-02-INV | Experiments on using high-temperature superconducting STAR® wires for accelerator magnets

Speaker: Diego Arbelaez¹, Paolo Ferracin¹, Hugh C. Higley¹, Simone Johnson¹, Vadim Kashikhin⁴, Oliver Kiemschies⁴, Linqing Luo¹, Nghia Mai², Darryl Orris⁴, Soren O Prestemon¹, José Luis Rudeiros Fernández¹, Umesh Sambangi², Jithin sai Sandra², Venkat Selvamanickam³, Stoyan Stoynev⁴, Vikas Teotia⁵, Reed Teyber¹, *Xiaorong Wang¹, Shengchen Xue²

Affiliation: 1. Lawrence Berkeley National Laboratory(United States of America), 2. AMPeers LLC(United States of America), 3. University of Houston(United States of America), 4. Fermi National Accelerator Laboratory(United States of America), 5. Brookhaven National Laboratory(United States of America)

Location: Convention Hall 1 (Room A)

15:45–16:15 | WB5-03-INV | Development of UROCOIC Conductors by Helical Fusion Co., Ltd.

Speaker: *Junichi Miyazawa¹, Yoshiro Narushima², Yuta Onodera², Tomosumi Baba², Shinji Hamaguchi², Nagato Yanagi², Hirotaka Chikaraishi², Hiroki Chikuma¹, Hitoshi Tamura¹, Takuya Goto¹

Affiliation: 1. Helical Fusion Co., Ltd.(Japan), 2. National Institute for Fusion Science(Japan)

Location: Convention Hall 1 (Room A)

16:15–16:45 | WB5-04-INV | Construction of Cable and Coil Testing System Using Liquid Helium for Electrical and Thermal Characterization of SCSC cables

Speaker: *Yusuke Sogabe¹, Kazuki Yasutake¹, Naoyuki Amemiya¹

Affiliation: 1. Kyoto University(Japan)

Location: Convention Hall 1 (Room A)

16:45–17:00 | WB5-05 | Development of a 2D Scanning Approach for Modelling AC Loss in Twisted Stacked-Tape Cables for HTS Fusion Applications

Speaker: *Alexander Wiseman¹, Yueming Sun¹, Nick Strickland¹, Zhenan Jiang¹

Affiliation: 1. Robinson Research Institute(New Zealand)

Location: Convention Hall 1 (Room A)

AP Category

09:45–10:15 | AP4-01-INV | Rotation Test of 2 MW Superconducting Motor

Speaker: *Itaru Abe¹, Ryo Fuchimoto¹, Tomoyuki Takahashi¹, Takeshi Kanasaki¹, Keita Nakama¹, Kei Koyanagi¹, Maia Okayasu¹, Tsutomu Shimonosono¹, Toru Kuriyama¹, Masahiko Takahashi¹, Norikazu Takagi¹, Masafumi Fujita¹, Takaaki Hirose¹, Yasuo Kabata¹, Hiroshi Hatano¹, Tadahiro Nakayama², Keiko Okamoto², Teppei Yano¹, Mikio Kakiuchi¹, Shinji Uemoto¹, Hiroshi Mochikawa¹, Hideyuki Nakamura¹, Hitoshi Katayama¹, Taizo Tosaka¹, Fumitoshi Mizutani¹, Kyohei Shibata¹

Affiliation: 1. Toshiba Energy Systems & Solutions Corporation(Japan), 2. Toshiba Corporation(Japan)

Location: 103 (Room C)

10:15–10:45 | AP4-02-INV | Superconducting technologies for future hydrogen-powered aircraft

Speaker: *Rémi Dorget¹, Alexandre Colle¹, Emelie Nilsson¹, Ludovic Ybanez¹

Affiliation: 1. Airbus UpNext(France)

Location: 103 (Room C)

10:45–11:15 | AP4-03-INV | Development of a 2 MW REBCO Fully Superconducting Synchronous Generator

Speaker: *Hiroshi Miyazaki¹, Masataka Iwakuma¹, Teruo Izumi²

Affiliation: 1. Kyushu University(Japan), 2. The National Institute of Advanced Industrial Science and Technology(Japan)

Location: 103 (Room C)

11:15–11:45 | AP4-04-INV | Development progress of a 3MW fully superconducting motor for aviation applications

Speaker: *Grant Lumsden¹, James Storey¹, Bart Ludbrook¹, Alan Caughley², Sangkwon Jeong³, Rod Badcock¹, Sarat Singamneni⁴, Zhenan Jiang¹

Affiliation: 1. Victoria University Wellington(New Zealand), 2. University of Canterbury(New Zealand), 3. KAIST(Korea), 4. Auckland University of Technology(New Zealand)

Location: 103 (Room C)

15:00–15:30 | AP5-01-INV | Status and Progress of Superconducting Magnet for Fusion in China

Speaker: *Jinxing Zheng¹

Affiliation: 1. Institute of Plasma Physics, Chinese Academy of Sciences(China)

Location: 103 (Room C)

15:30–16:00 | AP5-02-INV | Progress on the HTS Magnet Design for the FAST Project at the Conceptual Design Stage

Speaker: *Sadanori Iwai¹, Yoshikazu Takahashi¹, Kiyoshi Yoshida¹, Kenzo Ibane², Kenji Tobita³, Takaaki Fujita⁴, Miki Nishimura¹, Satoshi Konishi¹

Affiliation: 1. Kyoto Fusioneerin.Ltg(Japan), 2. The University of Osaka(Japan), 3. The University of Tokyo(Japan), 4. Nagoya University(Japan)

Location: 103 (Room C)

16:00–16:30 | AP5-03-INV | Advances in Practical REBCO HTS Magnet Design: Modeling, Validation, and Reliability

Speaker: Matt Bristow¹, Greg Brittles¹, Rod Bateman¹, *Manuel Perez Pacheco Perez Pacheco¹

Affiliation: 1. Tokamak Energy(UK)

Location: 103 (Room C)

16:30–17:00 | AP5-04-INV | Conceptual Design Study for Japanese Fusion DEMO Reactor

Speaker: *Hiroyasu Utoh¹

Affiliation: 1. National Institutes for Quantum Science and Technology(Japan)

Location: 103 (Room C)

December 04, 2025

Plenary Sessions

08:30–09:15 | PL4 | REBCO Requirements for Next-Generation HEP High-Field Magnets — Insights from Recent Muon Collider Design Studies

Speaker: *Bernardo Bordini¹, Luca Bottura¹

Affiliation: 1. CERN(Switzerland)

Location: Convention Hall 1 (Room A)

Oral Sessions

PC Category

09:45–10:00 | PC6-01 | Peak effect of vortex dynamics in a superconductor with columnar defect: A molecular dynamics simulation study

Speaker: *Naoto Yamashita¹, Masaru Kato¹

Affiliation: 1. Dept. of Phys. and Electronics, Osaka Metropolitan Univ.(Japan)

Location: 103 (Room C)

10:00–10:15 | PC6-02 | Imaging of Current-Driven Vortex Formation in YBa₂Cu₃O_{7-δ} Superconductor

Speaker: *Shunsuke Nishimura¹, Takeyuki Tsuji^{2,3}, Takayuki Iwasaki², Mutsuko Hatano², Kento Sasaki¹, Kensuke Kobayashi¹

Affiliation: 1. The University of Tokyo(Japan), 2. Institute of Science Tokyo(Japan), 3.

National Institute for Materials Science(Japan)

Location: 103 (Room C)

10:15–10:30 | PC6-03 | Generation of Vortices by Current Injection into Mesoscopic Superconductors: Numerical Study

Speaker: Shota Oshiro¹, Ayumu Takahashi¹, Takumi Mataba¹, Masahiko Hayashi²,

*Akinobu Kanda¹

Affiliation: 1. Univ. Tsukuba(Japan), 2. Akita Univ.(Japan)

Location: 103 (Room C)

10:30–10:45 | PC6-04 | Nonequilibrium Dynamics of Topological Defects in Type-II Superconductors

Speaker: *Takuma Kanakubo¹, Taira Kawamura², Yusuke Kato^{1,3}

Affiliation: 1. Department of Physics, The University of Tokyo(Japan), 2. College of Science and Technology, Nihon University(Japan), 3. Department of Basic Science, The University of Tokyo(Japan)

Location: 103 (Room C)

10:45–11:00 | PC6-05 | Fine Tuning of the Inverse Filter for Three-Dimensional Scanning SQUID Microscope

Speaker: *Masahiko Hayashi¹, Takekazu Ishida², Hiroaki Shishido², The Dang Vu², Shuichi Kawamata²

Affiliation: 1. Akita Univ.(Japan), 2. Osaka Metropolitan Univ.(Japan)

Location: 103 (Room C)

11:00–11:30 | PC6-06-INV | Development of thermal management technology based on superconductors

Speaker: *Yoshikazu Mizuguchi¹

Affiliation: 1. Tokyo Metropolitan University(Japan)

Location: 103 (Room C)

11:30–12:00 | PC6-07-INV | Strain-tuning for superconductivity in bilayer nickelate thin films

Speaker: *Motoki Osada¹

Affiliation: 1. University of Tokyo(Japan)

Location: 103 (Room C)

13:15–13:45 | PC7-01-INV | Superconducting Properties of La₃Ni₂O₇ and La₄Ni₃O₁₀ under high pressure

Speaker: *Yoshihiko Takano^{1,2}

Affiliation: 1. National Institute for Materials Science (NIMS)(Japan), 2. Univ. of Tsukuba(Japan)

Location: 103 (Room C)

13:45–14:15 | PC7-02-INV | Spin density wave order with single spin-spinless-stripe in La₃Ni₂O₇ probed by ¹³⁹La-NQR

Speaker: *Hidekazu Mukuda¹

Affiliation: 1. Osaka University(Japan)

Location: 103 (Room C)

14:15–14:30 | PC7-03 | Identification of Superconductivity in Bilayer Nickelate La₃Ni₂O₇ under High Pressure up to 100 GPa

Speaker: *Jingyuan Li¹, Di Peng², Peiyue Ma¹, Hualei Sun³, Qiaoshi Zeng^{2,4}, Ho-kwang Mao^{2,4}, Meng Wang¹

Affiliation: 1. School of Physics, Sun Yat-Sen University(China), 2. Institute for Shanghai Advanced Research in Physical Sciences (China), 3. School of Science, Sun Yat-Sen University(China), 4. Center for High Pressure Science & Technology Advanced Research(China)

Location: 103 (Room C)

14:45–15:15 | PC8-01-INV | Impact of electron-phonon coupling and Fermiology on Superconductivity in bilayer nickelates

Speaker: *Xianxin Wu¹

Affiliation: 1. Institute of Theoretical Physics, Chinese Academy of Sciences (China)

Location: 103 (Room C)

15:15–15:30 | PC8-02 | Theoretical study on ambient pressure superconductivity in La₃Ni₂O₇ thin films: robustness of wave pairing

Speaker: Kensei Ushio¹, Shu Kamiyama², Yuto Hoshi¹, Ryota Mizuno³, Masayuki Ochi^{2,3}, Kazuhiko Kuroki², *Hirofumi Sakakibara⁴

Affiliation: 1. Fac. of Eng.,Tottori Univ.(Japan), 2. Dept. of Phys., Univ. of Osaka(Japan), 3. FRC, Univ. of Osaka(Japan), 4. AMES, Tottori Univ.(Japan)

Location: 103 (Room C)

15:30–16:00 | PC8-03-INV | Access to Depairing Regime in Supercurrent Transport of Single-Crystal Nanobridges Made of Iron Based Superconductors

Speaker: *Haruhisa Kitano¹

Affiliation: 1. Aoyama Gakuin University(Japan)

Location: 103 (Room C)

16:00–16:15 | PC8-04 | Elastoresistance study on electronic nematic behavior in iron-based superconductor Ba_{1-x}NaxFe₂As₂

Speaker: *Zifan Xu¹, Yoichi Kageyama², Asato Onishi¹, Kouseke Ishida³, Shigeyuki Ishida⁴, Hiroshi Eisaki⁴, Kota Ishihara¹, Kenichiro Hashimoto¹, Takasada Shibauchi¹

Affiliation: 1. Tokyo Univ.(Japan), 2. Kyoto Univ.(Japan), 3. Tohoku Univ.(Japan), 4. AIST(Japan)

Location: 103 (Room C)

16:15–16:30 | PC8-05 | Magnetic Order in S-substituted FeSe_{1-x}S_x Thin Films Grown on LaAlO₃ Substrates

Speaker: *Kazuki Miwa¹, Yuma Kawai¹, Fuyuki Nabeshima², Andreas Suter³, Zaher

Salman³, Thomas Prokscha³, Atsutaka Maeda², Tadashi Adachi¹

Affiliation: 1. Sophia Univ.(Japan), 2. University of Tokyo(Japan), 3. PSI Center for Neutron and Muon Sciences(Switzerland)

Location: 103 (Room C)

16:30–16:45 | PC8-06 | Higher-order epitaxy: A pathway to suppressing structural instability and emergent superconductivity

Speaker: *Yuki Sato¹, Soma Nagahama², Shunsuke Kitou³, Hajime Sagayama⁴, Ilya Belopolski¹, Ryutaro Yoshimi^{1,3}, Minoru Kawamura¹, Atsushi Tsukazaki^{2,5}, Naoya Kanazawa⁶, Takuya Nomoto⁷, Ryutaro Arita^{1,8}, Taka-hisa Arima^{1,3}, Masashi Kawasaki^{1,2}, Yoshinori Tokura^{1,2,9}

Affiliation: 1. RIKEN Center for Emergent Matter Science (CEMS)(Japan), 2. Department of Applied Physics and Quantum-phase Electronics Center, University of Tokyo(Japan), 3. Department of Advanced Materials Science, University of Tokyo(Japan), 4. Institute of Materials Structure Science, High Energy Accelerator Research Organization(Japan), 5. Institute for Materials Research, Tohoku University(Japan), 6. Institute of Industrial Science, University of Tokyo(Japan), 7. Department of Physics, Tokyo Metropolitan University(Japan), 8. Department of Physics, University of Tokyo(Japan), 9. Tokyo College, University of Tokyo(Japan)

Location: 103 (Room C)

16:45–17:00 | PC8-07 | Growth and Superconducting Properties Optimization of Sm-based Oxypnictide by High Gas Pressure, Cubic Anvil, and Spark Plasma Sintering Techniques

Speaker: *Shiv J. Singh¹, Paolo Mele², Hiraku Ogino³

Affiliation: 1. Institute of High Pressure Physics (IHPP), Polish Academy of Sciences, Sokołowska 29/37, 01-142 Warsaw(Poland), 2. College of Engineering, Shibaura Institute of Technology, 307 Fukasaku, Minuma-ku, Saitama 337-8570,(Japan), 3. Core Electronics Technology Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki 305-8568(Japan)

Location: 103 (Room C)

ED Category

09:45–10:15 | ED6-01-INV | Superconducting hybrids with ferromagnetic and ferroelectric materials for low power electronics

Speaker: *Sachio Komori¹

Affiliation: 1. Nagoya University(Japan)

Location: 107 (Room D)

10:15–10:45 | ED6-02-INV | From Weak Links to Quantum Coherence: A Focused Ion Beam Perspective on Superconducting Tunneling Phenomena

Speaker: *Jay Clayton LeFebvre¹, Shane A. Cybart¹

Affiliation: 1. University of California, Riverside(United States of America)

Location: 107 (Room D)

10:45–11:00 | ED6-03 | Temperature and Dose Dependence of Helium Ion Microscopy-Fabricated YBCO Josephson Junctions

Speaker: *Tetsuro Misawa¹, Shinichi Ogawa¹, Yukinori Morita¹, Shigeyuki Ishida¹, Hiroshi Eisaki¹, Chiharu Urano

Affiliation: 1. National Institute of Advanced Industrial Science and Technology (AIST)(Japan)

Location: 107 (Room D)

11:00–11:15 | ED6-04 | FIB-Induced TC Modulation on Small Superconducting Iridium Thin Films

Speaker: *M. Amin Choghadi¹, Yuki Mitsuya¹, Hiroyuki Takahashi¹

Affiliation: 1. The University of Tokyo(Japan)

Location: 107 (Room D)

11:15–11:30 | ED6-05 | Scalable High-Temperature Superconducting Diodes in Intrinsic Josephson Junctions

Speaker: *Zihan Wei^{1,2}, Youkai Qiao³, Yang-Yang Lyu¹, Da Wang³, Tianyu Li¹, Leonardo Rodrigues Cadorim⁴, Ping Zhang^{1,2}, Wen-Cheng Yue¹, Dingding Li^{1,2}, Ziyu Song¹, Zixi Wang¹, Yunfan Wang¹, Milorad V. Milošević⁴, Yong-Lei Wang^{1,2,5}, Huabing Wang^{1,2}, Peiheng Wu^{1,2}

Affiliation: 1. School of Electronic Science and Engineering, Nanjing University(China), 2. Purple Mountain Laboratories(China), 3. National Laboratory of Solid State Microstructures & School of Physics, Nanjing University;(China), 4. COMMIT, Department of Physics, University of Antwerp(Belgium), 5. State Key Laboratory of Spintronics Devices and Technologies, Nanjing University(China)

Location: 107 (Room D)

11:30–11:45 | ED6-06 | Theoretical Analysis of Voltage Waveforms Reconstructed from Frequency-Modulated Pulse Trains for AC Josephson Voltage Standard

Speaker: *Kaho Koyanagi¹, Michitaka Maruyama¹, Hirotake Yamamori¹, Daiki Matsumaru¹, Nobu-Hisa Kaneko¹

Affiliation: 1. AIST(Japan)

Location: 107 (Room D)

13:15–13:45 | ED7-01-INV | High-Fidelity Qubit Control with Single-Flux-Quantum Circuits

Speaker: *Zhirong Lin¹

Affiliation: 1. Shanghai Institute of Microsystem and Information Technology, CAS(China)

Location: 107 (Room D)

13:45–14:15 | ED7-02-INV | Ultra-Low-Power Electronics Using Adiabatic Superconductor Logic

Speaker: *Naoki Takeuchi¹

Affiliation: 1. Kobe University(Japan)

Location: 107 (Room D)

14:15–14:30 | ED7-03 | Design of a Traveling-Wave Parametric Amplifier with a π -Josephson Junction

Speaker: *Shuyuan Cui¹, Daiki Fukuyo¹, Hiroshi Shimada¹, Yoshinao Mizugaki¹

Affiliation: 1. The University of Electro-Communications(Japan)

Location: 107 (Room D)

14:30–14:45 | ED7-04 | Observation of Individual Vortex Penetration in a Superconducting Resonator

Speaker: *Kirill Shulga¹

Affiliation: 1. The University of Tokyo(Japan)

Location: 107 (Room D)

15:00–15:30 | ED8-01-INV | High-Tc SQUID based low-field NMR for liver cancer and breast cancer diagnosis

Speaker: *Shu-Hsien Liao¹, Yan-Cheng Chen¹, Pei-Che Wu¹, Yu-Ting Liao¹, Jhih-Hao Chen¹, Kai-Wen Huang², Herng-Er Horng¹

Affiliation: 1. Institute of Electro-Optical Engineering, National Taiwan Normal University(Taiwan), 2. Department of Surgery and Hepatitis Research Center, National Taiwan University Hospital(Taiwan)

Location: 107 (Room D)

15:30–16:00 | ED8-02-INV | High Tc DC SQUID and Its Applications in Magnetic Imaging

Speaker: *Xiangyan Kong¹, Kebo Lu¹, Jiajun Chen¹, Yifan Wu¹, Hai Wang¹, Zhidan Zhang¹

Affiliation: 1. Ningbo University(China)

Location: 107 (Room D)

16:00–16:30 | ED8-03-INV | Fabrication of Nitride SQUID on Tip Probes by Reactive Magnetron Sputtering

Speaker: *Nobuhito Kokubo¹, Batbandi Gerelkhuu¹, Satoru Okazawa¹, Shota Shimada¹

Affiliation: 1. The University of Electro-Communications(Japan)

Location: 107 (Room D)

16:30–16:45 | ED8-04 | Frequency-dependent damping of Josephson junctions in dc-SQUID sensors and Zappe interferometer switches

Speaker: *Joern Beyer¹

Affiliation: 1. Physikalisch-Technische Bundesanstalt (PTB), Braunschweig und Berlin, Germany(Germany)

Location: 107 (Room D)

WB Category

09:45–10:15 | WB6-01-INV | Advancing HTS Production for Industrial Impact: Innovations, Applications, and Scale-Up Strategies

Speaker: *Jan Plechacek¹, Tomas Hlasek¹, Filip Antoncik¹, Michal Lojka¹

Affiliation: 1. CAN SUPERCONDUCTORS(Czech Republic)

Location: 102 (Room B)

10:15–10:45 | WB6-02-INV | Producing single grain (RE)BCO bulk superconductors via Infiltration and Growth approach: An overview

Speaker: *DEVENDRA KUMAR NAMBURI^{1,2}, Yun-Hua Shi², Jan Plechacek³, John H Durrell², David A Cardwell²

Affiliation: 1. UNIVERSITY OF GLASGOW(UK), 2. University of Cambridge(UK), 3. CAN SUPERCONDUCTORS, s.r.o.(Czech Republic)

Location: 102 (Room B)

10:45–11:00 | WB6-03 | Recent Developments in Ternary LREBa₂Cu₃O_y Superconductors Prepared by Top Seeded Infiltration Growth

Speaker: *Muralidhar Miryala¹, Akash Garg Agarwal¹

Affiliation: 1. Shibaura Institute of Technology(Japan)

Location: 102 (Room B)

11:00–11:30 | WB6-04-INV | Screening of an inhomogeneous magnetic field using bulks and coated conductors: how do the characteristics of the applied field influence the screening properties?

Speaker: Nicolas Rotheudt¹, Jean-François Fagnard¹, Tomas Hlasek², Jan Plechacek², *Philippe Vanderbemden¹

Affiliation: 1. University of Liege(Belgium), 2. CAN superconductors(Czech Republic)

Location: 102 (Room B)

11:30–12:00 | WB6-05-INV | Evidence of multiscale supercurrents in K-doped BaFe₂As₂: intrinsic or extrinsic limitation?

Speaker: *Chiara Tarantini¹, Shah Alam Limon¹, Keyou Mao¹, Md Rafsun Jani^{1,2}, Dongyi Qin³, Akiyasu Yamamoto Yamamoto³, Eric E. Hellstrom^{1,2,4}, Fumitake Kametani^{1,4}

Affiliation: 1. National High Magnetic Field Laboratory, Florida State University(United States of America), 2. Department of Materials Science and Engineering, FAMU-FSU College of Engineering, Florida State University(United States of America), 3. Department of Applied Physics, Tokyo University of Agriculture and Technology(Japan), 4. Department of Mechanical Engineering, FAMU-FSU College of Engineering, Florida State University(United States of America)

Location: 102 (Room B)

13:15–13:45 | WB7-01-INV | Evaluation of HTS tape for fusion magnets

Speaker: *Ashleigh Francis¹

Affiliation: 1. Commonwealth Fusion Systems(United States of America)

Location: 102 (Room B)

13:45–14:00 | WB7-02 | Big Data Analysis of XRD/SEM for Enhancing the Critical Current of 2G-HTS Tapes

Speaker: *Vladimir Vyatkin¹, Hoa Dao¹, Deniz Sanal¹, Konstantin Vereshchagin¹, Ivan

Veshchunov¹, Kamil Etxagibel¹, Roman Valikov¹, Alexander Borisov¹, Marat Gaifullin¹,
Sergey Samoilentkov¹, Valery Petrykin¹, Sergey Lee¹
Affiliation: 1. Faraday Factory Japan(Japan)
Location: 102 (Room B)

14:00–14:15 | WB7-03 | Observation of delamination in the REBCO tapes used in the Resistive-Insulated-Nested-Coils (RINC)

Speaker: *JUN LU¹, Iain R Dixon¹, Kwangmin Kim¹, Yan Xin¹, Hongyu Bai¹
Affiliation: 1. National High Magnetic Field Laboratory(United States of America)
Location: 102 (Room B)

14:15–14:45 | WB7-04-INV | Fabrication of high performance iron-based superconducting wires over 1000 meter length

Speaker: *Xianping Zhang¹, Yanwei Ma¹
Affiliation: 1. Institute of Electrical Engineering, Chinese Academy of Sciences(China)
Location: 102 (Room B)

15:00–15:30 | WB8-01-INV | Cryogenic irradiation of REBCO coated conductors for fusion magnets

Speaker: *David X Fischer¹, Alexis R Devitre¹, Kevin B Woller¹, Ben C Clark¹, Zoe L Fisher¹, Zachery S Hartwig¹
Affiliation: 1. Massachusetts Institute of Technology(United States of America)
Location: 102 (Room B)

Note: WB8-02 has been rescheduled to Room B on December 3rd, from 9:30 to 9:45

15:30–16:00 | WB8-03-INV | TDGL Analysis of Flux Pinning in Coated Conductors: Effects of Pin Density and Strain Field Distribution

Speaker: *Kaname Matsumoto^{1,2}, Tomoya Horide², Yutaka Yoshida²
Affiliation: 1. Kyushu Inst. Tech.(Japan), 2. Nagoya Univ.(Japan)
Location: 102 (Room B)

16:00–16:30 | WB8-04-INV | In-plane domain control of REBCO coted conductors by applying bending strain and its effects on superconducting properties

Speaker: *Tatsunori Okada^{1,2}, Daiki Hisatomi¹, Ryoma Kawamura¹, Itta Eshima¹, Kosei Ogawa¹, Yuhi Shimamura², Satoshi Awaji²
Affiliation: 1. Kyushu Inst. of Tech.(Japan), 2. Tohoku Univ.(Japan)
Location: 102 (Room B)

16:30–16:45 | WB8-05 | Approach for EMP testing of thin REBCO tapes without burnout in cryogenic and high-magnetic field environments considering current flow direction and bridge geometry

Speaker: *Michael Bihasa De Leon¹, Richard Pascua², Hyung-Seop Shin¹, Satoshi Awaji³
Affiliation: 1. Green Fusion Mechanical Systems Research Center, Gyeongkuk National University(Korea), 2. Department of Robotics Engineering, Gyeongkuk National

University(Korea), 3. Institute for Materials Research, Tohoku University(Japan)
Location: 102 (Room B)

AP Category

09:45–10:15 | AP6-01-INV | High-Speed HTS Generators for Airborne Application

Speaker: *James Storey¹, Swarn Kalsi², Kent Hamilton¹, Mohammad Siamaki¹, Dylan Guja¹, Eilish Baine¹, Bill Heffernan³, Matthew Pearce⁴, Nic Rogers Rehn¹, Grant Lumsden¹, Adam Francis¹, Rodney Badcock¹

Affiliation: 1. Victoria University of Wellington(New Zealand), 2. Kalsi Green Power Systems(United States of America), 3. University of Canterbury(New Zealand), 4. University of Auckland(New Zealand)

Location: Convention Hall 1 (Room A)

10:15–10:30 | AP6-02 | Superconducting Electric Motors and Generators with On-Board Cryocoolers for Compact and Efficient System Integration

Speaker: *Sangkwon Jeong¹

Affiliation: 1. KAIST(Korea)

Location: Convention Hall 1 (Room A)

10:30–10:45 | AP6-03 | Assembly and preliminary tests of a 250 kW partially superconducting machine

Speaker: Remi DORGET⁴, Walid Dirahoui¹, *Jean LEVEQUE¹, Thierry LUBIN¹, Kevin BERGER¹, Mathis DURAND¹, Adrien CIPRIANI³, Paul GNING², Christophe VIGUIER²

Affiliation: 1. Université de Lorraine, GREEN(France), 2. Safran Tech, Electrical & Electronic Systems Research group, Rue des Jeunes Bois, Châteaufort, 78114 Magny-Les-Hameaux(France), 3. Absolut System, 3 rue Raymond Chanas, 38320 Eybens(France), 4. Airbus UpNext SAS, Toulouse(France)

Location: Convention Hall 1 (Room A)

10:45–11:00 | AP6-04 | Modeling of MgB₂ windings under rotating magnetic fields

Speaker: *Satsuki Okumura¹, Hiroyuki Ohsaki¹

Affiliation: 1. University of Tokyo(Japan)

Location: Convention Hall 1 (Room A)

11:00–11:15 | AP6-05 | Comparative Study on Field-Pole Magnetic Circuits and Output Characteristics of Rim-Drive Rotating Machines

Speaker: *KEITA TSUZUKI¹, MITSURU IZUMI², DAI OIKAWA¹

Affiliation: 1. National Institute of Technology, Toyota College(Japan), 2. Tokyo University of Marine Science and Technology(Japan)

Location: Convention Hall 1 (Room A)

11:15–11:30 | AP6-06 | Proposal of the Cat's Cradle Winding Method for a High-temperature Superconductor Squirrel-cage Rotor and Evaluation of Its Basic Rotation Characteristics

Speaker: *Taketsune Nakamura¹, Mengyi Ren¹

Affiliation: 1. Kyoto University(Japan)
Location: Convention Hall 1 (Room A)

13:15–13:45 | AP7-01-INV | First Demonstration of a Conduction-Cooled MI REBCO Magnet with Pulsating Heat Pipes for Mobile and High-Field Uses

Speaker: *Philippe Fazilleau¹
Affiliation: 1. CEA Saclay(France)
Location: Convention Hall 1 (Room A)

13:45–14:00 | AP7-02 | 3D Finite Element Models for Drum-Type HTS Dynamos

Speaker: *Mujtaba Hussain¹, James G. Storey¹, Dominic A. Moseley¹, Rodney A. Badcock¹
Affiliation: 1. Paihau Robinson Research Institute, Victoria University of Wellington(New Zealand)
Location: Convention Hall 1 (Room A)

14:00–14:15 | AP7-03 | A Compact Epoxy-Wet-Wound HTS Electromagnet for Jc(B) Flux Pump Switching

Speaker: *James Hamilton Palmer Rice¹, Les Meadows¹, Kris Chappell¹, Bradley Leuw¹
Affiliation: 1. OpenStar Technologies Ltd(New Zealand)
Location: Convention Hall 1 (Room A)

14:15–14:30 | AP7-04 | A >100A commercial HTS transformer rectifier flux pump with <1.3 W full system heat load including feedthroughs

Speaker: *Adam C Francis¹, Ryan Galloway¹, Rodney A Badcock^{1,2,3}, Nic Rogers Rehn¹, Dominic A Moseley¹
Affiliation: 1. Robinson Research Institute(New Zealand), 2. OpenStar Technologies(New Zealand), 3. Dodd Walls Centre(New Zealand)
Location: Convention Hall 1 (Room A)

15:00–15:15 | AP8-01 | Interest of bulk MgB₂ superconductor for magnetic levitation applications

Speaker: *Jacques NOUDEM¹, Yiteng XING¹, Pierre BERNSTEIN¹
Affiliation: 1. Université de Caen Normandie, ENSICAEN, CNRS UMR 6508 CRISMAT, Normandie Univ., 14000 Caen (France)
Location: Convention Hall 1 (Room A)

15:15–15:30 | AP8-02 | Electromagnetic and dynamic characteristics of HTS maglev systems under rotating magnetic fields

Speaker: *Can Peng¹, Bin He², Yicheng Feng², Peiyu Yin², Zigang Deng²
Affiliation: 1. School of Information Science and Technology, Southwest Jiaotong University(China), 2. State Key Laboratory of Rail Transit Vehicle System, Southwest Jiaotong University(China)
Location: Convention Hall 1 (Room A)

15:30–15:45 | AP8-03 | Vibration attenuation characteristics of high-temperature superconducting bulks under free levitation and compensation method

Speaker: *Peiyu Yin¹, Tianyu Xing¹, Zihan Wang¹, Can Peng², Zigang Deng¹

Affiliation: 1. State Key Laboratory of Rail Transit Vehicle System, Southwest Jiaotong University(China), 2. School of Information Science and Technology, Southwest Jiaotong University(China)

Location: Convention Hall 1 (Room A)

15:45–16:00 | AP8-04 | Development of Non-Contact Stirrer Using HTS Bulk Magnets Cooled by Compact Cryocooler and Levitating Single-Pole Permanent Magnets

Speaker: *Tetsuo Oka¹, Kazuya Yokoyama², Naomichi Sakai¹, Yoshikazu Kato³, Tomokazu Hemmi⁴

Affiliation: 1. Shibaura Institute of Technology(Japan), 2. Ashikaga University(Japan), 3. SATAKE MultiMix Corporation(Japan), 4. Thermal Block Company Ltd.(Japan)

Location: Convention Hall 1 (Room A)

16:00–16:15 | AP8-05 | Conceptual Design of a Rotating Superconducting Magnet for Higher-Capacity Magnetic Refrigeration

Speaker: *Tsuyoshi WAKUDA¹, Manabu AOKI¹, Koji KAMIYA², Takenori NUMAZAWA², Kyohei NATSUME²

Affiliation: 1. Hitachi, Ltd.(Japan), 2. NIMS(Japan)

Location: Convention Hall 1 (Room A)

16:15–16:30 | AP8-06 | Progressive Study on Repetitive Excitation and Demagnetization for Magnetic Refrigeration Using Static Superconducting Coils

Speaker: *Koichiro Waki¹, Taiki Onji¹, Yamato Kamiyama¹, Keigo Ukita¹, Yoshiki Miyazaki¹, Yasuaki Sakamoto¹, Masaru Tomita¹, Naoki Hirano², Yuta Onodera²

Affiliation: 1. Railway Technical Research Institute(Japan), 2. National Institute for Fusion Science(Japan)

Location: Convention Hall 1 (Room A)

16:30–16:45 | AP8-07 | Study on a Stationary Metamagnetic AMR System Using AC Superconducting Magnet

Speaker: *Haruumi Yamamoto¹, Daiki Kobayashi¹, Kyohei Natsume¹, Koji Kamiya¹

Affiliation: 1. National Institute for Materials Science(Japan)

Location: Convention Hall 1 (Room A)

16:45–17:00 | AP8-08 | E-J Characteristic of Damaged REBCO Tapes at 20 K and 77 K

Speaker: *Shinsaku Imagawa¹, Masayoshi Ohya², Shinji Hamaguchi¹, Akifumi Iwamoto³, Hiroaki Kobayashi⁴

Affiliation: 1. National Institute for Fusion Science(Japan), 2. kwansei Gakuin University(Japan), 3. The University of Osaka(Japan), 4. Institute of Space and Astronautical Science(Japan)

Location: Convention Hall 1 (Room A)

Poster Presentations

2025-12-02 | PC| Physics and Chemistry 1

PCP1-01 | Theoretical Analysis of the Crystal and Electronic Structure of Thin-Film $\text{La}_3\text{Ni}_2\text{O}_7$

Speaker: *Kensei Ushio¹, Shu Kamiyama², Yuto Hoshi¹, Ryota Mizuno³, Masayuki Ochi^{2,3}, Kazuhiko Kuroki², Hirofumi Sakakibara⁴

Affiliation: 1. Faculty of Eng., Tottori Univ.(Japan), 2. Department of Physics, University of Osaka,(Japan), 3. Forefront Research Center, University of Osaka,(Japan), 4. Advanced Mechanical and Electronic System Research Center(AMES),(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-02 | Local structure analysis of $\text{NdFeAs}(\text{O,H})$ and $\text{NdFeAs}(\text{O,F})$ thin films

Speaker: *Takafumi Hatano¹, Koki Miyamoto¹, Shunya Tomioka¹, Atsuro Yoshikawa¹, Hiroshi Ikuta^{1,2}

Affiliation: 1. Dept. Materials Physics, Nagoya Univ.(Japan), 2. RCCME, Nagoya Univ.(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-03 | Classification of phase formation in layered perovskite compounds with Kolmogorov-Arnold networks

Speaker: *Sonosuke Kono^{1,2}, Yoichi Higashi², Yuki Iwasa², Izumi Hase², Ryo Maezono³, Taichiro Nishio¹, Hiraku Ogino², Kenta Hongo⁴

Affiliation: 1. Tokyo University of Science(Japan), 2. National Institute of Advanced Industrial Science and Technology (AIST)(Japan), 3. Institute of Science Tokyo(Japan), 4. JAIST(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-04 | Electronic Structure of New Superconductor $\text{Rh}_{1-x}\text{Pt}_x\text{Sb}$ with NiAs Structure

Speaker: *Izumi Hase¹, Akira Iyo¹, Yoichi Higashi¹, Kenji Kawashima^{1,2}

Affiliation: 1. National Institute of Advanced Industrial Science and Technology (AIST)(Japan), 2. IMRA-JAPAN Co. Ltd.(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-05 | Electronic Structure of $\text{La}(\text{Be,N})_2$ with CaB_2C_2 -type structure

Speaker: *Kenji Kawashima¹, Masaaki Yoshikawa¹, Yoshihisa Kamiya¹, Hiroshi Eisaki²

Affiliation: 1. IMRA JAPAN Co., Ltd(Japan), 2. National Institute of Advanced industrial Science and Technology(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-06 | Excitonic phase diagram in the electron-hole two-band Hubbard model based on the dynamical mean-field theory

Speaker: *Yusuke Inokuma¹, Shota Masuzawa², Kento Sasaki², Yoshiaki Ono²

Affiliation: 1. Japan Atomic Energy Agency(Japan), 2. Niigata Univ.(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-07 | Surface-localized topological superconductivity in nodal-loop materials: BdG analysis

Speaker: *Takeru Matsushima¹, Hiroki Tsuchiura¹

Affiliation: 1. Department of Applied Physics, Tohoku University(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-08 | Enhancement of T_c in Na-substituted BaBi₃ with AuCu₃-type

Speaker: *Terunari Koshinuma¹, Yoshihisa Kamiya¹, Hiroshi Fujihisa², Yoshito Gotoh², Izumi Hase², Shigeyuki Ishida², Hiraku Ogino², Hiroshi Eisaki², Kenji Kawashima¹, Akira Iyo²

Affiliation: 1. IMRA JAPAN Co., Ltd.(Japan), 2. National Institute of Advanced Industrial Science and Technology (Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-09 | Effect of In addition on misfit layered compounds {(SnSe)_{1.16}}m(NbSe₂)_n II

Speaker: *Shogo Kuwahara¹, Chiaya Yamamoto², Junji Yamanaka³, Masanori Nagao³, Tadataka Watanabe¹, Satoshi Demura¹

Affiliation: 1. College of Science and Technology Nihon University(Japan), 2. University of Yamanashi Center of Instrumental Analysis(Japan), 3. Center of Crystal Science and Technology, Yamanashi University(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-10 | Effect of Element Substitution on the Physical Properties in the misfit layered compound (BiSe)_m(TaSe₂)_n

Speaker: *Ryonosuke Nakata¹, Shogo Kuwahara¹, Tadataka Watanabe¹, Satoshi Demura¹

Affiliation: 1. CST Nihon Univ.(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-11 | Elemental Substitution Effects on the Bi site in RE(O,F)BiS₂ High-Entropy-alloy type RE site

Speaker: *Yuto Miyake¹, Shogo Kuwahara¹, Tadataka Watanabe¹, Satoshi Demura¹

Affiliation: 1. Nihon University(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-12 | Crystal Growth and Superconducting Properties of Novel NbS₂-based Intercalated Compounds

Speaker: *Taison Kato¹, Takao Sasagawa¹

Affiliation: 1. Materials and Structures Laboratory, Institute of Science Tokyo(Japan)

Location: 101ABC (Physics and Chemistry)

PCP1-13 | Observation of T_c dependence of gapped quasiparticle density of states in layered nitride chloride superconductor a-AxTiNCl by STM/STS

Speaker: *Akira Sugimoto¹, Masashi Tanaka², Toshikazu Ekino¹, Alexander M Gabovich³

Affiliation: 1. Graduate School of Advanced Science and Engineering, Hiroshima

University(Japan), 2. Kyusyu Inst. of Tech.(Japan), 3. Institute of Physics of the National Academy of Sciences, Ukraine(Ukraine)
Location: 101ABC (Physics and Chemistry)

2025-12-02 | ED | SQUID, Detector, Metrology, Novel Device

EDP1-01 | Prototype System for Metallic Inspection using HTS SQUIDs

Speaker: *Saburo Tanaka¹, P.W M.H Polkotuwa², Takeyoshi Ohtani^{1,2}
Affiliation: 1. National University Corporation Toyohashi Univ. of Technology(Japan), 2. Nikka Densok Limited(Japan)
Location: 101ABC (Electronic Devices)

EDP1-02 | Fabrication and Properties of integrated crystal-coupled SQUID for proximity detection of Time-Reversal Symmetry-Broken Superconductors

Speaker: *Hirotake Yamamori^{1,2}, Mitsuhiro Teshigawara³, Makoto Ono³, Rikizo Yano³, Yasunori Mawatari¹, Satoshi Kashiwaya³
Affiliation: 1. AIST(Japan), 2. NAOJ(Japan), 3. Nagoya University(Japan)
Location: 101ABC (Electronic Devices)

EDP1-03 | Detection Technique for small metal contaminants in oil using HTS-SQUID

Speaker: *Taiki Hino¹, Takahito Omoto¹, Ayumu Kihara², Yoshimi Hatsukade^{1,2}, Masahiko Kawabata³
Affiliation: 1. Graduate School of System Engineering, Kindai University(Japan), 2. Faculty of Engineering, Kindai University(Japan), 3. TRIBOTEX Co., Ltd.(Japan)
Location: 101ABC (Electronic Devices)

EDP1-04 | Developments of SQUID System for Detecting Spontaneous Magnetic Field in Microscopic Superconductors

Speaker: *Mitsuhiro Teshigawara¹, Makoto Ono¹, Hirotake Yamamori^{2,3}, Yasunori Mawatari², Rikizo Yano¹, Satoshi Kashiwaya¹
Affiliation: 1. Nagoya Univ.(Japan), 2. AIST(Japan), 3. NAOJ(Japan)
Location: 101ABC (Electronic Devices)

EDP1-05 | Superconducting quantum capacitance detectors with increased saturation power for 1.6 THz

Speaker: *Tianyuan Chi¹, Jingbo Wu^{1,2}, Lili Shi^{1,3}, Siming Zang¹, Rui Tan¹, Yuwei Zhu¹, Runfeng Su¹, Junhua Chen¹, Xuecou Tu^{1,2}, Biaobing Jin^{1,2}, Jian Chen^{1,2}, Peiheng Wu^{1,2}
Affiliation: 1. Nanjing Univ.(China), 2. Purple Mountain Lab.(China), 3. NEST(Italy)
Location: 101ABC (Electronic Devices)

EDP1-06 | Development of High-sensitivity Superconducting Kinetic Inductance Detectors for Far-infrared and Mid-infrared Astronomy

Speaker: *Runfeng Su¹, Rui Tan¹, Junhua Chen¹, Yuwei Zhu¹, Tianyuan Chi¹, Siming Zang¹, Jingbo Wu^{1,2}, Xuecou Tu^{1,2}, Jian Chen^{1,2}, Peiheng Wu^{1,2}
Affiliation: 1. Research Institute of Superconductor Electronics (RISE), School of Electronic

Science and Engineering, Nanjing University(China), 2. Purple Mountain Laboratory(China)
Location: 101ABC (Electronic Devices)

EDP1-07 | Development of TES Calibration System for Bioimaging Applications in Visible to Near-Infrared Wavelengths

Speaker: *Tetsuya Tsuruta¹, Koki Shiota¹, Takeshi Jodoi¹, Daiji Fukuda¹

Affiliation: 1. AIST(Japan)

Location: 101ABC (Electronic Devices)

EDP1-08 | Photoresponse of superconducting nanostrips based on NdFeAs(O,H)

Speaker: *Atsuro Yoshikawa¹, Daichi Aoki¹, Shunya Tomioka¹, Ibuki Washitani¹, Takafumi Hatano¹, Hiroki Kutsuma², Taro Yamashita², Hiroshi Ikuta¹

Affiliation: 1. Nagoya Univ.(Japan), 2. Tohoku Univ.(Japan)

Location: 101ABC (Electronic Devices)

EDP1-09 | Modelling of Multi-Photon Events of a Superconducting Single-Photon Nanostripe Detector for Photon Number Resolution Experiments

Speaker: *Quang Nguyen^{1,2}, Ivan Komissarov¹, Roman Sobolewski^{1,2}

Affiliation: 1. Department of Electrical and Computer Engineering, University of Rochester(United States of America), 2. Laboratory for Laser Energetics, University of Rochester, Rochester(United States of America)

Location: 101ABC (Electronic Devices)

EDP1-10 | Simultaneous Operation of Josephson Voltage Standard and Quantized Hall Resistance Array in a Dilution Refrigerator

Speaker: *Daiki Matsumaru^{1,2}, Takehiko Oe¹, Shuji Nakamura¹, Hirotake Yamamori¹, Michitaka Maruyama¹, Nobu-Hisa Kaneko¹

Affiliation: 1. AIST(Japan), 2. Univ. of Tsukuba(Japan)

Location: 101ABC (Electronic Devices)

EDP1-11 | Random-number generator using chaotic behavior in intrinsic Josephson junction stack

Speaker: *Dai Oikawa¹, Hirokazu Komatsu², Keita Tsuzuki¹, Hiroya Andoh¹

Affiliation: 1. National Institute of Technology, Toyota College(Japan), 2. Kindai Univ.(Japan)

Location: 101ABC (Electronic Devices)

EDP1-12 | Preliminary Electrical Characterization of BSCCO/ZnO and BSCCO/CuxO Heterojunctions Prepared via MOD Method

Speaker: *Yasuyuki Yamada¹, Masato Nobushima¹, Shu Ikura¹, Hiromu Kasai¹

Affiliation: 1. National Institute of Technology, Oyama College(Japan)

Location: 101ABC (Electronic Devices)

2025-12-02 | WB | Conductor Processing & Evaluation

WBP1-01 | Research Progress on Fabrication of Practical Superconducting Materials at NIN

Speaker: *Shengnan Zhang¹, Jixing Liu¹, Qingbin Hao¹, Qingyang Wang¹, Lihua Jin¹, Botao Shao¹, Xueqian Liu¹, Guo Yan^{1,2}, Xianghong Liu^{1,2}, Jianfeng Li¹, Pingxiang Zhang¹
Affiliation: 1. Northwest institute for non-ferrous metal research(China), 2. Western Superconducting Technologies Co.,Ltd.(China)
Location: 101ABC (Wires and Bulk)

WBP1-02 | Finite Element Modeling of Bi-based Superconducting Wire Drawing Process

Speaker: *Xueqian Liu¹, Shengnan Zhang¹, Jianfeng Li¹, Jixing Liu¹, Guo Yan^{1,2}, Xianghong Liu^{1,2}, Chengshan Li¹, Pingxiang Zhang¹
Affiliation: 1. Northwest Institute for Non-ferrous Metal Research(China), 2. Western Superconducting Technologies Co.,Ltd.(China)
Location: 101ABC (Wires and Bulk)

WBP1-03 | Research Progress of Bi-2212 Superconducting Material at WST

Speaker: *Guo Yan¹
Affiliation: 1. Western Superconducting Technologies Co., Ltd(China)
Location: 101ABC (Wires and Bulk)

WBP1-04 | Flux Pinning and Superconducting Properties of Metallic Nb Added MgB₂

Speaker: *Gaetan Simon¹
Affiliation: 1. Sibaura Institue of Technology(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-05 | High-performance FeSeTe superconducting films: Controllable fabrication and performance enhancement

Speaker: *Jixing Liu¹, Botao Shao¹, Shengnan Zhang¹, Jianfeng Li¹, Pingxiang Zhang¹
Affiliation: 1. Northwest Institute for Non-ferrous Metal Research(China)
Location: 101ABC (Wires and Bulk)

WBP1-06 | Evaluation of Superconducting Transport Properties in (Ba,Na)Fe₂As₂ Round Wires with Harder Sheath Materials

Speaker: *Ryosuke Sakagami^{1,2}, Tsuyoshi Tamegai^{2,3}, Junyi Luo¹, Akihiro Kikuchi³, Masaru Yamamoto⁴, Satoshi Awaji¹
Affiliation: 1. IMR, Tohoku University(Japan), 2. The University of Tokyo(Japan), 3. National Institute for Materials Science (NIMS)(Japan), 4. Japan Superconductivity Application Development Inc. (JSA)(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-07 | Development and manufacturing of REBCO 2G-HTS wires for low field applications using PLD process

Speaker: *Hoa Thi Dao¹, Ivan Veshchunov¹, Vladimir Vyatkin¹, Kamil Etxagibel¹, Marat Gaifullin¹, Sergey Samoilenov¹, Valery Petrykin¹, Sergey Lee¹
Affiliation: 1. Faraday Factory Japan LLC(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-08 | Comparison of Oxygen Annealing Effects on the Structure and Electronic State of YBCO 2G-HTS Tapes and Single-Phase Powders

Speaker: *Maki Okube¹, Kiyofumi Nitta², Marat Gaifullin¹, Roman Valikov¹, Sergey

Samoilenkov¹, Valery Petrykin¹, Sergey Lee¹

Affiliation: 1. FFJ(Japan), 2. JASRI(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-09 | Effect of BaHfO₃ Concentration on the Microstructure of YBa₂Cu₃O_{7-x} Thin Films

Speaker: *Nao Ikemoto¹, Haruna Nogami¹, Manabu Ishimaru¹, Shin Okumura², Tomoya Horide², Yutaka Yoshida²

Affiliation: 1. Kyushu Institute of Technology(Japan), 2. Nagoya University(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-10 | Linking surface morphology, microstructure, and superconducting properties in YBCO thin films using image analysis and artificial intelligence

Speaker: *Shin Okumura¹, Ibuki Kato¹, Tomoya Horide¹, Yutaka Yoshida¹

Affiliation: 1. Nagoya Univ.(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-11 | Data-Driven Optimization of Liquid-Phase-Assisted Process for Engineering High-J_c Coated Conductor.

Speaker: *Shunta Ito¹, Ibuki Kato¹, Tomoya Horide¹, Yutaka Yoshida¹

Affiliation: 1. Nagoya University(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-12 | Correlation analysis of YBCO film between a-axis oriented grain characteristics based on AFM image analysis and XRD

Speaker: *Ibuki Kato¹, Shin Okumura¹, Tomoya Horide¹, Yutaka Yoshida¹

Affiliation: 1. Nagoya University(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-13 | Study on the Effect of Sr/Ca Composition Ratio in AE-Cu-O Thin Films Prepared by Combinatorial Pulsed Laser Deposition

Speaker: *Haruto Uchida¹, Kazuya Ogasawara¹, Shinkuro Suzuki¹, Noriyuki Taoka¹,

Yosiyuki Seike¹, Tatsuo Mori¹, Toshinori Ozaki², Shuhei Funaki³, Yusuke Ichino¹

Affiliation: 1. Aichi Inst. of Technol.(Japan), 2. Kwansei Gakuin Univ.(Japan), 3. Shimane Univ.(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-14 | Optimization of Eclipse Nd:YAG-Pulsed Laser Deposition method for YBCO Thin Films: Suppressing Droplets via Definitive Screening Design

Speaker: *Eijiro Okumura¹, Gen Ieda¹, Sota Tarumi¹, Tsuyoshi Ogawa¹, Noriyuki Taoka¹,

Yoshiyuki Seike¹, Tatsuo Mori¹, Yusuke Ichino^{1,5}, Keiichi Horio^{2,5}, Ataru Ichinose^{3,5},

Tomoya Horide^{4,5}, Kaname Matsumoto^{4,5}, Yutaka Yoshida^{4,5}

Affiliation: 1. Aichi Inst. of Technol.(Japan), 2. Kyushu Inst. of Technol.(Japan), 3. Cent. Res. Inst. of Elect. Power Ind.(Japan), 4. Nagoya Univ.(Japan), 5. JST-CREST(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-15 | Optimization of Pulsed Laser Deposition Parameters for HoBCO Thin Films Using Definitive Screening Design

Speaker: *Takumi Takamura¹, Kota Shimodaira¹, Iori Nishimura¹, Noriyuki Taoka¹, Yoshiyuki Seike¹, Tatsuo Mori¹, Yusuke Ichino^{1,5}, Keiichi Horio^{2,5}, Ataru Ichinose^{3,5}, Tomoya Horide^{4,5}, Kaname Matsumoto^{4,5}, Yutaka Yoshida^{4,5}
Affiliation: 1. Aichi Inst. of Technol.(Japan), 2. Kyushu Inst. of Technol.(Japan), 3. Cent. Res. Inst. of Elect. Power Ind.(Japan), 4. Nagoya Univ.(Japan), 5. JST-CREST(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-16 | Correlation Between Plume Color Metrics and Superconducting Properties in YBCO Thin Films Prepared by Pulsed Laser Deposition

Speaker: *Ryotaro Matsuda¹, Iori Kadota¹, Yuto Tanaka¹, Noriyuki Taoka¹, Yoshiyuki Seike¹, Tatsuo Mori¹, Yusuke Ichino^{1,5}, Keiichi Horio^{2,5}, Ataru Ichinose^{3,5}, Tomoya Horide^{4,5}, Kaname Matsumoto^{4,5}, Yutaka Yoshida^{4,5}
Affiliation: 1. Aichi Inst. of Technol.(Japan), 2. Kyushu Inst. of Technol.(Japan), 3. Cent. Res. Inst. of Elect. Power Ind.(Japan), 4. Nagoya Univ.(Japan), 5. JST-CREST(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-17 | Magnetron sputtering of YBa₂Cu₃O_{7-x} thin films on biaxially textured substrates

Speaker: *Raimbek Akhat¹, Ivan Veshchunov³, Valery Petrykin³, Zhumabay Bakenov^{1,2}, Sergey Lee³, Aliya Mukanova^{1,2}
Affiliation: 1. National Laboratory Astana PI(Kazakhstan), 2. Institute of Batteries, LLC(Kazakhstan), 3. Faraday Factory Japan LLC(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-18 | The influence of different hole concentrations on the superconducting properties of TFA-MOD (Y_{0.77}Gd_{0.23})Ba₂Cu₃O_y films

Speaker: *Ryuga Matsuhira¹, Takumi Hirose¹, Ryona Fujimoto¹, Yuki Ogimoto¹, Masashi Miura^{1,2}
Affiliation: 1. Seikei Univ.(Japan), 2. JST-FOREST(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-19 | The effect of film thickness on critical current density for TFA-MOD (Y_{0.77}Gd_{0.23})Ba₂Cu₃O_y+BaHfO₃ CCs

Speaker: *Ryosuke Totsuka¹, Ryusei Kaji¹, Daekyu Lee¹, Yuki Ogimoto¹, Masashi Miura^{1,2}
Affiliation: 1. Seikei University(Japan), 2. JST-FOREST(Japan)
Location: 101ABC (Wires and Bulk)

WBP1-20 | The in-field J_c properties of TFA-MOD (Y_{0.77}Gd_{0.23})Ba₂Cu₃O_y CCs with a high volume of BaHfO₃ NPs

Speaker: *Yuki OGIMOTO1, Keisuke Aoto1, Masashi Miura1,2

Affiliation: 1. Seikei Univ.(Japan), 2. JST-FOREST(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-21 | Effect of the Ba/RE ratio on the critical current in BaZrO₃ nanoparticle-doped Y-Gd-Ba-Cu-O-coated conductor formed by trifluoroacetate-based metal-organic deposition

Speaker: *Michio Sato1, Takuma Oyamada1, Kei Shiohara1, Yuji Aoki1, Kazuhisa Adachi1, Rin Takajom2, Riichiro Tashiro2, Masayoshi Inoue2, Koichi Nakaoka3, Teruo Izumi3

Affiliation: 1. SWCC Corporation(Japan), 2. Fukuoka Institute of Technology(Japan), 3.

National Institute of Advanced Industrial Science and Technology(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-22 | Cancelled

WBP1-23 | Sr_{0.95}La_{0.05}TiO₃ / Ni Conductive Buffer Layer for Ag-free REBCO Wires

Speaker: *Tsubasa Uchida1, Koki Katayama1, Akiyoshi Matsumoto2, Takumi Ikenoue1, Toshiya Doi1

Affiliation: 1. Kyoto Univ.(Japan), 2. NIMS(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-24 | Analysis of Current Blocking Obstacles in REBCO Coated Conductors Based on Reel-to-Reel Magnetic Microscopy and Object Detection

Speaker: *Zeyu Wu1, Kohei Higashikawa1, Kazutaka Imamura1, Takanobu Kiss1

Affiliation: 1. Kyushu University(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-25 | Cancelled

WBP1-26 | Microstructural Observation for Understanding Delamination Mechanisms in YBa₂Cu₃O_y Coated Conductor

Speaker: *Yusuke Kawagishi1, Ryo Teranishi1, Taiki Wada1, Akiyoshi Matsumoto2

Affiliation: 1. Kyushu Univ. (Japan), 2. National Institute for Materials Science(Japan)

Location: 101ABC (Wires and Bulk)

WBP1-27 | Unveiling Performance Evolution of Deuterium Plasma-Irradiated REBCO Tapes

Speaker: *Fazhu Ding1

Affiliation: 1. Institute of Electrical Engineering, Chinese Academy of Sciences(China)

Location: 101ABC (Wires and Bulk)

2025-12-02 | AP | Novel applications, Levitation, Associate components

APP1-01 | Operational Experiences and Further Plans for Improving Pressure Stability of SCL3 Cryomodule in RAON

Speaker: *Jaehak HAN1, Minki LEE1, Gyuho LEE1, Inmyung PARK1, Hyunchul JO1, Junghyun YOO1, Seojeong KIM1, Jinwook KIM1, Jae Hee SHIN1

Affiliation: 1. Institute for Rare Isotope Science (IRIS), Institute for Basic Science (IBS)
(Korea)

Location: 101ABC (Large Scale Applications)

APP1-02 | Improvements on Cryomodules Operation of the SCL3 Linac for RAON's 3rd Beam Commissioning

Speaker: *Minki Lee¹, Seojeong Kim¹, Inmyung Park¹, Junghyun Yoo¹, Hyun Chul Jo¹,
Gyuhoo Lee¹, Jinwook Kim¹, Jaehak Han¹, Jae Hee Shin¹

Affiliation: 1. institute for Basic Science(Korea)

Location: 101ABC (Large Scale Applications)

APP1-03 | IMPROVEMENT OF FREQUENCY STABILITY BY MECHANICAL MODIFICATIONS OF CRYOGENIC VALVE IN SUPERCONDUCTING LINAC OF RAON

Speaker: *Gyuhoo Lee¹, Minki Kim¹, Jeahak Han¹, Inmyung Park¹, Hyunchul Jo¹, Junghyun
Yoo¹, Seojeong Kim¹, Jinwook Kim¹, Jae Hee Shin¹

Affiliation: 1. Institute for Basic Science, Institute for Rare Isotope Science(Korea)

Location: 101ABC (Large Scale Applications)

APP1-04 | Dynamic Response of YBCO Bulks Maglev System Under High Frequency Excitation

Speaker: *Li Wang¹, Yanxing Cheng¹

Affiliation: 1. Southwest Jiaotong University(China)

Location: 101ABC (Large Scale Applications)

APP1-05 | A redescription of inhomogeneity and anisotropy in bulk superconductors and its application in HTS pinning maglev

Speaker: *Yanxing Cheng¹, Li Wang¹, Jun Zheng¹

Affiliation: 1. Southwest Jiaotong University(China)

Location: 101ABC (Large Scale Applications)

APP1-06 | Roll angle of superconducting levitation Transport systems with improved rail magnetic field

Speaker: *Muneo Futamura¹, Kuren Tsuchida¹

Affiliation: 1. Akita Prefectural University(Japan)

Location: 101ABC (Large Scale Applications)

APP1-07 | A Frictionless Sliding Mechanism for Reciprocating Magnetic Refrigeration Systems using Flux-Pinned Bulk HTSs

Speaker: *Shinnosuke Matsunaga¹, Takanori Motoki²

Affiliation: 1. National Institute of Technology, Gifu College(Japan), 2. Aoyama Gakuin
University(Japan)

Location: 101ABC (Large Scale Applications)

APP1-08 | Propulsion Force Enhancement through Excitation Coil Arrangement in a Hybrid Maglev Transporter System

Speaker: *Alex Hitoshi Takinami¹, Haruka Shirotani¹, Ken-ichi Kondo¹, Shunsuke Ohashi¹

Affiliation: 1. Kansai University(Japan)

Location: 101ABC (Large Scale Applications)

APP1-09 | Effect of Different Nanofillers on the Electrical Breakdown Properties of Polyimide Films at Cryogenic Temperature

Speaker: *Shen Zhao1

Affiliation: 1. Technical Institute of Physics and Chemistry(China)

Location: 101ABC (Large Scale Applications)

APP1-10 | Heat Leak Measurement of Multilayer Insulation under different Wrapping Strength

Speaker: *Hiroaki Kobayashi1, Koshi Kato1, Makoto Otsuka1, Masae Kanda1, Satarou Yamaguchi1, Hirofumi Watanabe1

Affiliation: 1. Chubu Univ.(Japan)

Location: 101ABC (Large Scale Applications)

APP1-11 | Study on the effect of roughness on the cryogenic emissivity of copper

Speaker: *Zichun Huang1,2, Bixi Li1,2, Liancheng Xie1,2, Linjie Zhang1,2, Fuzhi Shen1, Hengcheng Zhang1, Hao Zhang1

Affiliation: 1. Key Laboratory of Cryogenic Science and Technology, TIPC, CAS(China), 2. University of Chinese Academy of Sciences(China)

Location: 101ABC (Large Scale Applications)

APP1-12 | Investigation of AC inductive excitation phenomena through current distribution simulation within REBCO wire using n-value model

Speaker: *Takuma Obuchi1, Ken Shimada1, Masayoshi Ohya1

Affiliation: 1. School of Engineering, Kwansei Gakuin University(Japan)

Location: 101ABC (Large Scale Applications)

APP1-13 | Strain-stress Coupling Cryogenic Test Platform Based on Digital Image Correlation

Speaker: *LINjie Zhang1,2, Liancheng Xie1,2, Bixi Li1,2, ZIchun Huang1,2, Fuzhi Shen1, Hengcheng Zhang1, Hao Zhang1

Affiliation: 1. Key Laboratory of Cryogenic Science and Technology, TIPC, CAS(China), 2. University of Chinese Academy of Sciences(China)

Location: 101ABC (Large Scale Applications)

APP1-14 | Preliminary AC inductive excitation tests of 1-turn high-temperature superconducting assembled conductor coil under liquid nitrogen and liquid hydrogen cooling

Speaker: *Takumi Gotomyo1, Soya Okabe1, Ken Shimada1, Takuma Obuchi1, Masayoshi Ohya1, Shinsaku Imagawa2, Hiroaki Kobayashi3

Affiliation: 1. Kwansei Gakuin University(Japan), 2. National Institute for Fusion Science(Japan), 3. Japan Aerospace Exploration Agency(Japan)

Location: 101ABC (Large Scale Applications)

APP1-15 | Progress of AC inductive energization test of high-temperature superconducting assembled conductors under liquid hydrogen cooling

Speaker: *Ken Shimada¹

Affiliation: 1. Kwansei Gakuin University(Japan)

Location: 101ABC (Large Scale Applications)

APP1-16 | Design, Development, and Experimental Validation of an H-bridge-Style Jc(B) Flux Pump

Speaker: *Samuel Schimanski¹, Jayani Karunarathna¹, Mohammad Siamaki¹

Affiliation: 1. OpenStar Technologies(New Zealand)

Location: 101ABC (Large Scale Applications)

APP1-17 | Inductance behaviour of a hybrid copper-HTS transformer at different temperatures and a novel liquid cryogen level sensor

Speaker: *Adam C Francis¹, Michael Southon¹, Ryan Galloway¹, Andres E Pantoja¹, Rodney A Badcock^{1,2,3}

Affiliation: 1. Robinson Research Institute(New Zealand), 2. OpenStar Technologies(New Zealand), 3. Dodd Walls Centre(New Zealand)

Location: 101ABC (Large Scale Applications)

APP1-18 | A Novel HTS Condenser for Coordinated Inertia-VAR Support in Power Systems

Speaker: *Dong Zhang^{1,2}, Danyang Wang^{1,2}, Runqian Gao^{1,2}, Haotian Zhang^{1,2}, Jingwei Tian^{1,2}, and Guomin Zhang^{1,2}

Affiliation: 1. Institute of Electrical Engineering, Chinese Academy of Sciences (China), 2. University of Chinese Academy of Sciences (China)

Location: 101ABC (Large Scale Applications)

2025-12-03 | PC | Physics and Chemistry²

PCP2-01|Spatiotemporal correlation and nonlinear dynamics in Josephson junction

networks driven by modulated

Speaker: *Takaaki Kawaguchi¹

Affiliation: 1. Department of Physics, Toho University(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-02 | Thermal diode fabricated using bulk superconducting materials

Speaker: *Masayuki Mashiko¹, Poonam Rani¹, Keisuke Hirata², Ken-ichi Uchida^{2,3}, Yoshikazu Mizuguchi¹

Affiliation: 1. Department of Physics, Tokyo Metropolitan University(Japan), 2. Department of Advanced Materials Science, Graduate School of Frontier Sciences, The University of Tokyo(Japan), 3. National Institute for Material Science(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-03 | Superconducting properties and anomalous thermal expansion in a CuAl₂-type transition-metal zirconide Co_{1-x}Fe_xZr₂

Speaker: *Ryunosuke Shimada¹, Asato Seshita¹, Yuto Watanabe¹, Akira Miura², Yoshikazu Mizuguchi¹

Affiliation: 1. Tokyo Metropolitan Univ.(Japan), 2. Hokkaido Univ.(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-04 | Spatial variation of electronic states in LaTe₃

Speaker: *Atsushi Nomura^{1,2}, Hideaki Sakata²

Affiliation: 1. Nihon University(Japan), 2. Tokyo University of Science(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-05 | Numerical Simulation of Effect of Current Injection on Vortex Penetration/expulsion Fields in Mesoscopic Superconductors

Speaker: Ayumu Takahashi¹, Shota Oshiro¹, Takumi Mataba¹, Masahiko Hayashi², *Akinobu Kanda¹

Affiliation: 1. Univ. Tsukuba(Japan), 2. Akita Univ.(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-06 | Scanning SQUID microscopy with vector pick-up coils

Speaker: Shuichi Kawamata¹, Masahiko Hayashi², Hiroaki Shishido¹, The Dang Vu¹, *Takekazu Ishida¹

Affiliation: 1. Osaka Metropolitan University(Japan), 2. Akita University(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-07 | Doping Dependence of Critical Current Density and Vortex Pinning Mechanism in Bi₂Sr₂CaCu₂O_{8+δ} Single Crystals

Speaker: *Shigeyuki Ishida¹, Junichiro Kato^{1,2}, Shungo Nakagawa³, Takanari Kashiwagi³, Yoichi Higashi¹, Yasunori Mawatari¹, Nao Takeshita¹, Yoshiyuki Yoshida¹, Akira Iyo¹, Hiraku Ogino¹, Hiroshi Eisaki¹, Taichiro Nishio²

Affiliation: 1. AIST(Japan), 2. Tokyo University of Science(Japan), 3. University of Tsukuba(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-08 | Numerical Study on Geometry Dependence of Vortex States in Two-Dimensional Type-II Mesoscopic Superconductors

Speaker: *Hao Yu¹, Haoyun Liang¹, Masahiko Hayashi², Akinobu Kanda¹

Affiliation: 1. Department of Physics, University of Tsukuba(Japan), 2. Faculty of Education and Human Studies, Akita University(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-09 | A Microscopic Simulation of Vortex Pinning in a Dirty Superconductor
Speaker: *Masaru Kato^{1,2}, Yoichi Higashi²

Affiliation: 1. Department of Physics and Electronics, Osaka Metropolitan University (Japan),

2. National Institute of Advanced Industrial Science and Technology (AIST)(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-10 | Observation of Nonreciprocal Transport in High-Temperature Superconducting Cuprate $\text{La}_{1.6-x}\text{Nd}_{0.4}\text{Sr}_x\text{CuO}_4$

Speaker: *Ryo Motobayashi¹, Masamichi Nakajima², Naoki Ogawa², Yoshinori Tokura^{1,2,3}

Affiliation: 1. Department of Applied Physics, Graduate School of Engineering, The University of Tokyo(Japan), 2. RIKEN Center for Emergent Matter Science (CEMS)(Japan), 3. Tokyo College, The University of Tokyo(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-11 | Temperature-dependent dielectric response and heat transfer suppression in high-temperature superconductors

Speaker: *Bixi Li^{1,2}, Zichun Huang^{1,2}, Liancheng Xie^{1,2}, Linjie Zhang^{1,2}, Fuzhi Shen¹, Hengcheng Zhang¹, Hao Zhang¹

Affiliation: 1. Key Laboratory of Cryogenic Science and Technology, TIPC, CAS(China), 2. University of Chinese Academy of Sciences(China)

Location: 101ABC (Physics and Chemistry)

PCP2-12 | The effect of Sr content on superconducting properties of TFA-MOD ($\text{La}_{2-x}\text{Sr}_x$) CuO_4 films

Speaker: *Takumi Kuwada¹, Ryusei Kaji¹, Mahiro Kaiya¹, Yuki Ogimoto¹, Masashi Miura^{1,2}

Affiliation: 1. Seikei University(Japan), 2. JST-FOREST(Japan)

Location: 101ABC (Physics and Chemistry)

PCP2-13 | Interactive Microstructure Mapping for Exploring Microstructure-Property Relationships

Speaker: *Yassin Rahman¹, Manuela Erbe¹, Kai Walter¹, Alexandra Jung¹, Bernhard Holzapfel¹

Affiliation: 1. Karlsruhe Institute of Technology, Institute of Technical Physics(Germany)

Location: 101ABC (Physics and Chemistry)

PCP2-14 | Superconducting properties of $(\text{Y}_{1-x}\text{Ca}_x)\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$ films with various Ca contents

Speaker: *Shuhe Yamagata¹, Ryoya Nagaura¹, Yuki Ogimoto¹, Shuhe Funaki², Masashi Miura^{1,3}

Affiliation: 1. Seikei University(Japan), 2. Shimane University(Japan), 3. JST-FOREST(Japan)

Location: 101ABC (Physics and Chemistry)

2025-12-03 | ED | Digital, Quantum Information Technology, Materials and Fabrication

EDP2-01 | Miniaturization of a superconductor FPGA utilizing external control reconfiguration

Speaker: *Sho Matsuoka¹, Nobuyuki Yoshikawa^{1,2,3}, Yuki Yamanashi^{1,2,3}

Affiliation: 1. Yokohama National University(Japan), 2. Institute of Advanced Sciences

Yokohama National University(Japan), 3. Institute for Multidisciplinary Sciences Yokohama National University(Japan)

Location: 101ABC (Electronic Devices)

EDP2-02 | Reduction of Logic Stages and Gate Count in RSFQ Circuits Synthesized with a Complete Set of Clockless Gates

Speaker: *Nobutaka Kito¹

Affiliation: 1. Chukyo University(Japan)

Location: 101ABC (Electronic Devices)

EDP2-03 | Speech Recognition with TDGL-Based Superconducting Physical Reservoir

Speaker: *Ken Arita¹, Jukiya Kusuki¹, Edmund Soji Otabe¹, Ahmet Karacali¹, Xu Muzhen¹, Yuki Usami¹, Hirofumi Tanaka¹, Tetsuya Matsuno²

Affiliation: 1. Kyushu Institute of Technology(Japan), 2. National Institute of Technology Ariake College(Japan)

Location: 101ABC (Electronic Devices)

EDP2-04 | Ultra Low Voltage Operation of Half-Flux-Quantum Circuits

Speaker: *Kenshin Inagaki¹, Soma Deguchi¹, Feng Li¹, Masamitsu Tanaka¹, Akira Fujimaki¹

Affiliation: 1. Nagoya Univ.(Japan)

Location: 101ABC (Electronic Devices)

EDP2-05 | Demonstration of Stochastic Number Generator using Complementary Output Superconductive Random Number Generators

Speaker: *Ryota Fukuzaki¹, Masaki Nagayama¹, Nobuyuki Yoshikawa^{1,2,3}, Yuki Yamanashi^{1,2,3}

Affiliation: 1. Yokohama National Univ.(Japan), 2. Yokohama National Univ. IAS(Japan), 3. Yokohama National Univ. IMS(Japan)

Location: 101ABC (Electronic Devices)

EDP2-06 | Design of Asynchronous Single Flux Quantum OR Gate with Input-Pattern-Independent Output Delay

Speaker: *Taisei Yahata¹, Nobuyuki Yoshikawa^{1,2,3}, Yuki Yamanashi^{1,2,3}

Affiliation: 1. Yokohama National University(Japan), 2. Institute of Advanced Sciences, Yokohama National University(Japan), 3. Institute of Multidisciplinary Sciences, Yokohama National University(Japan)

Location: 101ABC (Electronic Devices)

EDP2-07 | Design and simulation of a logic switching circuit for reconfigurable superconducting reversible logic circuits

Speaker: *Aoto Tanaoka¹, Nobuyuki Yoshikawa^{1,2,3}, Yuki Yamanashi^{1,2,3}

Affiliation: 1. Yokohama National University(Japan), 2. Institute of Advanced Sciences, Yokohama National University(Japan), 3. Institute for Multidisciplinary Sciences, Yokohama National University(Japan)

Location: 101ABC (Electronic Devices)

EDP2-08 | Impact of the fabrication process on internal losses in coplanar waveguide resonator based on nitride superconductors

Speaker: *Satoru Mima¹, Hirotaka Tera¹, Yuji Hishida¹, Kazuyo Takaki¹, Mai Setoura¹, Shigehito Miki¹

Affiliation: 1. NICT - National Institute of Information and Communications Technology(Japan)

Location: 101ABC (Electronic Devices)

EDP2-09 | Effect of film thickness on the gain of kinetic-inductance traveling-wave parametric amplifier at millimeter wavelength

Speaker: *Hayato Kondo¹, Masanori Takeda¹

Affiliation: 1. Shizuoka Univ.(Japan)

Location: 101ABC (Electronic Devices)

EDP2-10 | Energy loss functions for electronic mode of Si, Al, and TiN substrate materials used in quantum computing based on first-principles electronic structure calculations

Speaker: *Takuya Sekikawa¹, Takeshi Kai¹

Affiliation: 1. Japan Atomic Energy Agency(Japan)

Location: 101ABC (Electronic Devices)

EDP2-11 | Photoemission Electron Microscopy of Ion Irradiated YBCO Josephson Junctions

Speaker: *Rochelle Y. Qu¹, Alex M Boehm², Jay C. LeFebvre¹, Adhilsha Parachikunnumal¹, Nicole Chin¹, Andrew Kim², Michael Titze², Alex A. Belianinov², Edward S. Bielejec², Taisuke Ohta², Shane A. Cybart¹

Affiliation: 1. University of California, Riverside(United States of America), 2. Sandia National Laboratories(United States of America)

Location: 101ABC (Electronic Devices)

EDP2-12 | Anisotropy and Strain Characterization in RCE Grown YBCO Thin Films for Superconducting Applications

Speaker: *Nicole Y Chin¹, Rochelle Y Qu¹, Francisco Guzman², Sreekar Vattipalli¹, Jay C LeFebvre¹, Xiaoqing Pan², Shane A Cybart¹

Affiliation: 1. University of California, Riverside(United States of America), 2. University of California, Irvine(United States of America)

Location: 101ABC (Electronic Devices)

2025-12-03 |WB | Bulk, Assembled Conductors, AC Loss

WBP2-01 | 2D Multiphysics modeling of hole arrangements in relation to growth sectors in REBCO bulks during pulsed-field magnetization

Speaker: *Santiago Guijosa¹, K  vin Berger¹, Frederic Trillaud^{2,1}, Melika Hinaje¹

Affiliation: 1. Universit   de Lorraine(France), 2. Universidad Nacional Aut  noma de M  xico(Mexico)

Location: 101ABC (Wires and Bulk)

WBP2-02 | How to enhance the magnetic field of permanent magnet and trapped field of single domain GdBCO bulk superconductors

Speaker: *Wanmin Yang¹

Affiliation: 1. Shaanxi Normal University(China)

Location: 101ABC (Wires and Bulk)

WBP2-03 | The influence of geometric characteristics on the equivalent magnetic susceptibility of HTS bulk

Speaker: *Mayin Si¹, Zigang Deng², Jun Zheng²

Affiliation: 1. School of Information Science and Technology, Southwest Jiaotong University, Chengdu 610031(China), 2. State Key Laboratory of Rail Transit Vehicle system, Southwest Jiaotong University, Chengdu 610031(China)

Location: 101ABC (Wires and Bulk)

WBP2-04 | Mechanical Properties of DyBaCuO Bulk Materials with Different Dy²¹¹ Content Under Repeated Loading

Speaker: *Akira Murakami¹, Mahiro Abe¹

Affiliation: 1. National Institute of Technology, Ichinoseki College(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-05 | Technology for trapping strong magnetic fields in HTS bulk by a single pulse magnetic field

Speaker: *Tetsuya Ida¹, Mitsuru Izumi^{1,2}

Affiliation: 1. Tokyo University of Marine Science and Technology(Japan), 2. National Institute of Technology, Toba College(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-06 | Numerical Investigation and Mitigation Strategies for Flux Jumps Prevention in MgB₂ Bulks

Speaker: *Michela Fracasso^{1,2}, Roberto Gerbaldo^{1,2}, Gianluca Ghigo^{1,2}, Yiteng Xing³, Pierre Bernstein³, Jacques Noudem³, Laura Gozzelino^{1,2}

Affiliation: 1. Department of Applied Science and Technology, Politecnico di Torino, Torino(Italy), 2. Istituto Nazionale di Fisica Nucleare, Sezione di Torino, Torino(Italy), 3. CRISMAT, UMR 6508 CNRS ENSICAEN-UNICAEN, Caen(France)

Location: 101ABC (Wires and Bulk)

WBP2-07 | Trapping, shielding, and focusing properties of the magnetic field in large MgB₂ ring-bulk superconductors prepared by a premix-infiltration method

Speaker: Shuta Abe¹, *Tomoyuki Naito¹

Affiliation: 1. Iwate University(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-08 | PFM of trapped field magnets by a two-step crossed fields combination

Speaker: *Difan Zhou¹, Haoran Jiang¹, Tianxin Lan¹

Affiliation: 1. Shanghai University(China)

Location: 101ABC (Wires and Bulk)

WBP2-09 | Rapid and Scalable Fabrication of Alkali Metal-Intercalated C60 Bulk Superconductors

Speaker: *Akira Iyo¹, Hiroshi Fujihisa¹, Yoshito Gotoh¹, Shigeyuki Ishida¹, Hiroshi Eisaki¹, Hiraku Ogino¹, Kenji Kawashima^{2,1}

Affiliation: 1. National Institute of Advanced Industrial Science and Technology (AIST)(Japan), 2. IMRA JAPAN Co., Ltd.(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-10 | Critical Current Density of Rb3C60 Bulk Superconductor Fabricated by a Rapid and Scalable Synthesis Route

Speaker: *Hiroki Hasegawa^{1,2}, Akira Iyo², Shigeyuki Ishida², Hiroshi Eisaki², Hiraku Ogino², Kenji Kawashima^{3,2}, Mariko Murayama¹, Taichiro Nishio^{1,2}

Affiliation: 1. Tokyo University of Science(Japan), 2. AIST(Japan), 3. IMRA Japan(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-11 | Simplification of magnetization procedure using a new FAVS (First Applying a Very Small magnetic field) method for pulsed-field magnetization

Speaker: *Kazuya Yokoyama¹, Kaoru Ishibashi¹, Tetsuo Oka²

Affiliation: 1. Ashikaga University(Japan), 2. Shibaura Institute of Technology(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-12 | Facility Development for Superconducting Cable's Transverse Pressure Susceptibility of the Critical Current Investigation

Speaker: *Jingfeng Zhang^{1,2}, Fang Liu¹, Peng Gao¹

Affiliation: 1. Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences(China), 2. University of Science and Technology of China(China)

Location: 101ABC (Wires and Bulk)

WBP2-13 | Research on the Application Performance of Superconducting Composite Cables for Tokamak Magnets

Speaker: *Shaotao Dai¹, Tao Ma¹, Yangyang Shi¹, Lei Hu¹, Junfeng Yang¹, Bangzhu Wang¹

Affiliation: 1. Beijing Jiaotong University(China)

Location: 101ABC (Wires and Bulk)

WBP2-14 | Mechanical Modeling and Parameter Optimization of the Compaction Process of CORC Cable

Speaker: *Yifeng Li¹, Junfeng Yang¹, Shaotao Dai¹, Tao Ma¹

Affiliation: 1. School of Electrical and Electronic Engineering, Beijing Jiaotong University(China)

Location: 101ABC (Wires and Bulk)

WBP2-15 | Withdrawn

Speaker: -

Affiliation: -

Location: 101ABC (Wires and Bulk)

WBP2-16 | The Electric Field Dependence and Statistical Distribution Analysis of Critical Current for Superconducting Composite Conductors

Speaker: *Yuto Yamaguchi¹, Ginta Utsunomiya¹, Riichiro Tashiro¹, Taketsune Nakamura², Ryosuke Kubota³, Masayoshi Inoue¹

Affiliation: 1. Fukuoka Institute of Technology(Japan), 2. Kyoto Univ.(Japan), 3. Fukuoka Institute of Technology Junior College(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-17 | Finite Element Analysis of Voltage Generation near Current Leads in High Temperature Superconducting Composite Conductors

Speaker: *Riichiro Tashiro¹, Ginta Utsunomiya¹, Masayoshi Inoue¹

Affiliation: 1. FIT(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-18 | Withdrawn

Speaker: -

Affiliation: -

Location: 101ABC (Wires and Bulk)

WBP2-19 | Simulation of magnetization loss in no-insulation coils under high AC magnetic fields at various operating temperatures

Speaker: *Qingjiao Liu^{1,2}, Ben George Koshy¹, Yueming Sun¹, Junci Cao², Zhenan Jiang¹

Affiliation: 1. Robinson Research Institute, Victoria University of Wellington(New Zealand), 2. School of Electrical Engineering, Beijing Jiaotong University(China)

Location: 101ABC (Wires and Bulk)

WBP2-20 | Numerical simulations in REBCO coils under rotating magnetic fields

Speaker: *Yuan Wang^{1,2}, James G. Storey¹, Jin Fang², Timothy J. Haugan³, Zhenan Jiang¹

Affiliation: 1. Paihau-Robinson Research Institute, Victoria University of Wellington(New Zealand), 2. School of Electrical Engineering, Beijing Jiaotong University(China), 3. Air Force Research Laboratory, Aerospace Systems Directorate(United States of America)

Location: 101ABC (Wires and Bulk)

WBP2-21 | Hybrid Method for Evaluating System-level AC Losses in a DC HTS Linear Machine

Speaker: *Emma Gottardi¹, Dave C. J. Krop¹, Elena A. Lomonova¹

Affiliation: 1. Eindhoven University of Technology(Netherlands)

Location: 101ABC (Wires and Bulk)

WBP2-22 | Sensitive Measurement of AC Loss Characteristics of Short Straight HTS Tapes by Reducing Background Losses in the Pickup Coil Method

Speaker: *SHUMA Kawabata¹

Affiliation: 1. Kagoshima University(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-23 | Influence of Dy concentration and Dispersion medium on low-field Magnetic alignment of (Y_{1-x}Dy_x)Ba₂Cu₄O₈

Speaker: *Pamoda Piyumali Kahagalla Kahagalla Gamaralalage¹, Fukuyama Fuuto¹, Fumiko Kimura¹, Shigeru Horii¹

Affiliation: 1. Kyoto University of Advanced Science(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-24 | Magnetically bi-axial aligned Dy₁₂₃ superconducting ceramics by colloidal process

Speaker: *Futo Fukuyama¹, Tohru S. Suzuki², Shintaro Adachi¹, Fumiko Kimura¹, Noriyuki Hirota², Tetsuo Uchikoshi², Shigeru Horii¹

Affiliation: 1. Kyoto University of Advanced Science (Japan), 2. National Institute for Material and Science(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-25 | Biaxial orientation degrees of (Y_{1-x}Er_x)Ba₂Cu₃O_y powders aligned under the oscillation type modulated rotating magnetic field

Speaker: *Shigeru Horii¹, Daisuke Notsu², Toshiya Doi²

Affiliation: 1. Kyoto University of Advanced Science(Japan), 2. Kyoto University(Japan)

Location: 101ABC (Wires and Bulk)

WBP2-26 | Porosity Reduction and Flux-Pinning Optimisation in SDMG-Grown GdBCO/Ag Bulk Superconductors for HTS Undulators

Speaker: * F. Antoncik^{1,2*}, T. Hlasek^{1,2}, M. Lojka^{1,2}, V. Sevcik¹

Affiliation: 1 University of Chemistry and Technology, (Czech Republic), 2 CAN SUPERCONDUCTORS s.r.o., (Czech Republic)

Location: 101ABC (Wires and Bulk)

2025-12-03|AP | Magnets, Electric power devices, Rotating machines

APP2-01 | Development of Closed-Loop Magnet Systems Based on REBCO Superconducting Joint

Speaker: *Daxing Huang^{1,2}, Hongwei Gu^{1,2}, Fazhu Ding^{1,2}

Affiliation: 1. Institute of Electrical Engineering, Chinese Academy of Sciences(China), 2. Shandong Key Laboratory of Advanced Electromagnetic Conversion Technology and Institute of Electrical Engineering and Advanced Electromagnetic Drive Technology, Qilu Zhongke(China)

Location: 101ABC (Large Scale Applications)

APP2-02 | Withdrawn

APP2-03 | Development of a hybrid superconducting dipole magnet with the magnetic field beyond 14 T

Speaker: *Chengtao Wang¹

Affiliation: 1. Institute of High Energy Physics, Chinese Academy of Sciences(China)

Location: 101ABC (Large Scale Applications)

APP2-04 | A novel joint-less double aperture REBCO closed-loop magnet

Speaker: *Hongwei Gu¹

Affiliation: 1. Institute of Electrical Engineering, Chinese Academy of Sciences(China)

Location: 101ABC (Large Scale Applications)

APP2-05 | Feasibility Study of a Stationary Magnetic Refrigeration System using Magnetically Coupled Superconducting Coils for Lunar Hydrogen Liquefaction

Speaker: *Sakutaro Nagaya¹, Shinnosuke Matsunaga^{1,2}, Hiroto Nanba¹, Jun Shimada³, Haruumi Yamamoto², Kyohei Natsume², Kouji Kamiya²

Affiliation: 1. National Institute of Technology, Gifu College(Japan), 2. National Institute for Material Science(Japan), 3. Japan Aerospace Exploration Agency(Japan)

Location: 101ABC (Large Scale Applications)

APP2-06 | Analytical Mechanics Approach to Motion Modeling on Actuator-driven Magnetic Refrigeration System

Speaker: *Ryo Matsunaga¹, Shinnosuke Matsunaga^{1,2}, Kyohei Natsume², Koji Kamiya²

Affiliation: 1. National Institute of Technology, Gifu College(Japan), 2. National Institute for Materials Science(Japan)

Location: 101ABC (Large Scale Applications)

APP2-07 | Relationship between Induced Voltage and Velocity of Magnetic Material in a Superconducting Coil Magnet for a Reciprocating-type Magnetic Refrigeration System

Speaker: *Shoki Fujii¹, Daiki Kobayashi², Shinnosuke Matsunaga^{1,3}, Kyohei Natsume³, Koji Kamiya³

Affiliation: 1. National Institute of Technology, Gifu College(Japan), 2. University of Tsukuba(Japan), 3. National Institute for Material Science(Japan)

Location: 101ABC (Large Scale Applications)

APP2-08 | Improving Gas Barrier Properties of PPSU-Coated Tubes for Lightweight Superconducting Aircraft Cables

Speaker: *Mariko Kakitani¹, Kei Shiohara¹, Michio Sato¹, Tatsuhisa Nakanishi¹, Kazuhisa Adachi¹, Yuta Sudo², Kazunori Suzuki², Soichiro Murakami², Teruo Izumi³, Masataka Iwakuma⁴

Affiliation: 1. SWCC Corporation(Japan), 2. Iwate Industrial Research Institute(Japan), 3. National Institute of Advanced Industrial Science and Technology(Japan), 4. Kyushu University(Japan)

Location: 101ABC (Large Scale Applications)

APP2-09 | Experimental AC loss study on REBCO coil assemblies coupled with an iron cylinder

Speaker: *Zhenan Jiang¹, Yue Wu^{1,2}, Jin Fang², Daisuke Miyagi³, Naoyuki Amemiya⁴, Rodney A. Badcock¹, Nicholas J. Long¹

Affiliation: 1. Robinson Research Institute, Victoria University of Wellington(New Zealand), 2. School of Electrical Engineering, Beijing Jiaotong University(China), 3. Department of Electrical and Electronic Engineering, Chiba University(Japan), 4. Graduate School of Engineering, Kyoto University(Japan)

Location: 101ABC (Large Scale Applications)

APP2-10 | Evaluation of Current Distribution in kA-Class SMES Cables with Parallel Windings of REBCO Coated Conductors

Speaker: *Tomoya Miyazaki¹, Kohei Higashikawa¹, Takanobu Kiss¹, Michio Sato², Kei Shiohara²

Affiliation: 1. Kyushu University(Japan), 2. SWCC Corporation(Japan)

Location: 101ABC (Large Scale Applications)

APP2-11 | AC Loss Property of Two-dimensional Array of REBCO Superconducting Tapes and Pancake Coils

Speaker: *Hiromasa Sasa¹, Yuuki Himeno¹, Takaemi Suenaga¹, Hiroshi Miyazaki¹, Masataka Iwakuma¹

Affiliation: 1. Kyushu University(Japan)

Location: 101ABC (Large Scale Applications)

APP2-12 | Improvement of AC loss measurement of MgB₂ superconducting coils under rotating magnetic fields by reducing the effects of eddy currents

Speaker: *Koki Okubo¹, Satsuki Okumura¹, Yutaka Terao², Shuichiro Fuchino¹, Donghwan Kim³, Hiroyuki Ohsaki¹

Affiliation: 1. Univ. of Tokyo(Japan), 2. Kyoto Univ.(Japan), 3. SNU(Korea)

Location: 101ABC (Large Scale Applications)

APP2-13 | Research on Magnetic Drivers for Superconducting Flywheel Energy Storage Systems

Speaker: *Guomin Zhang^{1,2}

Affiliation: 1. Institute of Electrical Engineering Chinese Academy of Sciences(China), 2. University of Chinese Academy of Sciences(China)

Location: 101ABC (Large Scale Applications)

APP2-14 | Experimental Evaluation of Current Distribution on Transposed Four-Parallel Conductors in Three-phase REBCO Armature Coils under Rotating Magnetic Field

Speaker: *Yudai Kimura¹, Goki Kawasaki⁴, Masayuki Ishihara¹, Tomohiro Inoue¹, Kohei Yoshida¹, Shun Miura³, Hiroshi Miyazaki¹, Akifumi Kawagoe², Masataka Iwakuma¹

Affiliation: 1. Kyushu Univ.(Japan), 2. Kagoshima Univ.(Japan), 3. NIFS(Japan), 4. NIT,

Miyakonojo C(Japan)

Location: 101ABC (Large Scale Applications)

APP2-15 | Shielding Characteristics of HTS Rotor Bars in a Rotating Magnetic Field in View of Percolation Limits of State Variables

Speaker: *Yutaka Terao¹, Taketsune Nakamura¹, Masayoshi Yamamoto¹

Affiliation: 1. Kyoto University(Japan)

Location: 101ABC (Large Scale Applications)

APP2-16 | Effect of Magnetic Shielding on Current Sharing in Armature Coils Composed of Three-Parallel Conductors

Speaker: *Goki Kawasaki^{1,2}, Yudai Kimura², Tomohiro Inoue², Masayuki Ishihara², Kohei Yoshida², Shun Miura³, Hiroshi Miyazaki², Akifumi Kawagoe⁴, Masataka Iwakuma⁴

Affiliation: 1. National Institute of Technology, Miyakonojo College(Japan), 2. Kyushu University(Japan), 3. National Institute for Fusion Science(Japan), 4. Kagoshima University(Japan)

Location: 101ABC (Large Scale Applications)

APP2-17 | Thermal performance of the cryo-rotary joint for cooling system of the HTS rotating machine under 2000 rpm

Speaker: Kota Yamaguchi¹, *Kosei Hisada¹, Taiki Kobayashi¹

Affiliation: 1. National Institute of Technology, Toba college(Japan)

Location: 101ABC (Large Scale Applications)