

Poster Sessions

Cuprate

Chairperson: Tomoteru Fukumura (Tohoku University)

PCP5-1 14:00–16:00

Superconducting properties of polycrystalline $\text{FeSr}_2\text{ErCu}_2\text{O}_{6+y}$

*Isamu Iida¹, Yoshiaki Hata¹, Takashi Mochiku², Hiroshi Yasuka¹

1. Department of Applied Physics, National Defense Academy; 2. Neutron Scattering Group, Research Center for Advanced Measurement and Characterization, National Institute for Materials Science

PCP5-2 14:00–16:00

Cu substitution for Nb in $\text{NbSr}_2\text{GdCu}_2\text{O}_z$ ($z \approx 8$)

*Toshihiko Maeda, Tatsuya Mitani, Takashi Akesaka, Takanori Okazaki

Kochi University of Technology

PCP5-3 14:00–16:00

Substitution effect of some lanthanoid elements in $\text{Y}(\text{Sr},\text{Ba})_2(\text{Cu},\text{Mo})_3\text{O}_z$

*Takanori Okazaki, Takashi Akesaka, Toshihiko Maeda

Kochi University of Technology

PCP5-4 14:00–16:00

Effect of Tb substitution on properties of $\text{FeSr}_2\text{YCu}_2\text{O}_{6+\delta}$ magnetic superconductor

*Takashi Mochiku¹, Yoshiaki Hata², Isamu Iida², Akinori Hoshikawa³, Toru Ishigaki³, Hiroshi Yasuoka², Kazuto Hirata¹

1. National Institute for Materials Science; 2. National Defense Academy; 3. Ibaraki University

PCP5-5 14:00–16:00

Oxidation and reduction effects of successive superconducting transitions in ultra-fine $\text{YBa}_2\text{Cu}_4\text{O}_8$ ceramics

*Akihiko Hisada^{1,2}, Kie Muranaka², Kuniyuki Koyama^{1,2}, Ko-ichi Magishi^{1,2}, Takahito Saito^{2,3}, Makoto Hagiwara⁴

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PCP5-6 14:00–16:00

Field-Temperature Phase Diagram of Intergrain Ordering in Superconductive Ceramic YBCO

*Hiroyuki Deguchi¹, Ryusei Warabino¹, Syunkun Ka¹, Masaki Mito¹, Makoto Hagiwara²,

Kuniyuki Koyama³

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PCP5-7 14:00–16:00

Double pair breaking peak in triple layer cuprate Bi2223

*Giulio Vincini¹, Lennart Sobirey¹, Kiyohisa Tanaka², Toru Adachi¹, Naoki Murai¹, Shigeki Miyasaka¹, Setsuko Tajima¹, Shintaro Adachi³, Takao Watanabe³

1. Department of Physics, Osaka University; 2. Institute for Molecular Science; 3. Graduate School of Science and Technology, Hirosaki University

PCP5-8 14:00–16:00

STS measurement of Ni impurity effect in Bi2212

*Akito Nakagawa, Tomohiro Sakaidani, Yuta Kiguchi, Tatsuro uto, Azusa Matsuda

Waseda University

PCP5-9 14:00–16:00

Spin injection effect in thin Bi2212 single crystal

*Kenichiro Murata, Kazuto Otaka, Kazuhiro Yamaki, Akinobu Irie

Utsunomiya University

PCP5-10 14:00–16:00

And-renormalization effects on antiferromagnetism and d-wave superconductivity in two-dimensional t-J model

*Ryo Sato, Hisatoshi Yokoyama

Tohoku University

Vortex physics 3

Chairperson: Atsutaka Maeda (The University of Tokyo)

PCP6-1 14:00–16:00

Detecting Vortex Motion with Scanning Tunneling Microscopy

*Koshiro Kato¹, Koichiro Ienaga¹, Shin-ichi Kaneko¹, Hideaki Sakata², Satoshi Okuma¹

1. Department of Physics, Tokyo Institute of Technology; 2. Department of Physics, Tokyo University of Science

PCP6-2 14:00–16:00

Non-equilibrium depinning transition driven by dc current and vortex density

*Tetsuya Kaji, Yasuki Kawamura, Koichiro Ienaga, Shin-ichi Kaneko, Satoshi Okuma

Dept. of Physics, Tokyo Institute of Technology

PCP6-3 14:00–16:00

Random organization of vortices under anisotropic conditions

*Koichiro Ienaga, Yudai Shirahata, Mihaly Dobroka, Yasuki Kawamura, Shin-ichi Kaneko, Satoshi Okuma

Department of Physics, Tokyo Institute of Technology

PCP6-4 14:00–16:00

Spin-polarized Local Density of States around Vortex in Helical p-wave Superconductors

*Kenta Tanaka¹, Masanori Ichioka^{1,2}, Seiichiro Onari^{1,2}

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PCP6-5 14:00–16:00

Spin-current induced around half-quantum vortices in chiral p-wave superconducting states

*Rui Asaoka¹, Hiroki Tsuchiura¹, Manfred Sigrist²

1. Tohoku University; 2. Eidgenössisch Technische Hochschule

PCP6-6 14:00–16:00

Temperature Distribution and Critical Current of Long HTS Cables Cooled with Subcooled Liquid Nitrogen

*Vladimir Vyatkin¹, Yury Ivanov^{1,2}, Hirofumi Watanabe^{1,2}, Noriko Chikumoto^{1,2}, Satarou Yamaguchi^{1,2}

1. Chubu University, Kasugai, Japan; 2. Ishikari Superconducting DC Power Transmission System Research Association, Yokohama, Japan

PCP6-7 14:00–16:00

Manipulation of Magnetic Flux States in Superconducting Squares with Artificial Pinning Sites

*Kohei Kitano¹, Satoru Okayasu², Tsutomu Nojima³, Takahiko Sasaki³, Nobuhito Kokubo¹

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PCP6-8 14:00–16:00

Magnetic field dependence of most stable vortex states in the chiral helimagnet / superconductor bilayer system

*Saoto Fukui, Masaru Kato, Yoshihiko Togawa

Osaka Prefecture University

PCP6-9 14:00–16:00

Simulations of vortices in a star-shaped plate with an artificial pin

*Hiroki Miyoshi¹, Atsuki Ito¹, Vu The Dang^{1,2}, Ho Thanh Huy^{1,2}, Masahiko Hayashi², Masaru Kato^{1,3,4}, Takekazu Ishida^{1,4}

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PCP6-10 14:00–16:00

Molecular Dynamics Simulation on Vortex Lattice Melting in Meso-scopic Superconductors

*Masaru Kato, Harutaka Kitago

Department of Mathematical Sciences, Osaka Prefecture University

PCP6-11 14:00–16:00

A variety of vortex state solutions of Ginzburg-Landau equation on superconducting mesoscopic plates

*Osamu Sato¹, Masaru Kato²

1. Department of Liberal Arts, Osaka Prefecture University College of Technology;
2. Department of Mathematical Sciences, Osaka Prefecture University

PCP6-12 14:00–16:00

Numerical restoration of surface vortices in Nb films measured by a scanning SQUID microscope

*Atsuki Ito¹, Ho Thanh Huy^{1,2}, Vu The Dang^{1,2}, Hiroki Miyoshi¹, Masahiko Hayashi³, Takekazu Ishida¹

1. Osaka Prefecture University; 2. Vietnam National University HCMC; 3. Akita University

PCP6-13 14:00–16:00

Magnetism, Fluctuations and Superconductivity in Cuprate High-Temperature Superconductors

*Takashi Yanagisawa¹, Izumi Hase¹, Mitake Miyazaki², Kunihiro Yamaji¹

1. National Institute of Advanced Industrial Science and Technology; 2. Hakodate National College of Technology

PCP6-14 14:00–16:00

Equilibrium and dynamic vortex phase diagrams near absolute zero in a thick amorphous film

*Satoshi Okuma¹, Aguri Ochi¹, Naoya Sohara¹, Koichiro Ienaga¹, Shin-ichi Kaneko¹, Nobuhito Kokubo²

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PCP6-15 14:00–16:00

Dynamic Melting of Anisotropic Vortex Lattices

*Inoue Toshiki¹, Aguri Ochi¹, Yasuki Kawamura¹, Mihaly Dobroka¹, Koichiro Ienaga¹, Shin-ichi Kaneko¹, Nobihito Kokubo², Satoshi Okuma¹

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PCP6-16 14:00–16:00

Simulation of Critical Current Density of Bulk High T_c Superconducting Materials with a Thermally Activated Flux Motion

*Santosh Miryala¹, Michael Koblishka²

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PCP6-17 14:00–16:00

Microscopic calculation of the flux-flow Hall effect in a superconductor with an isolated vortex

*Hikaru Ueki, Wataru Kohno, Takafumi Kita

Department of Physics, Hokkaido University, Sapporo, Japan

PCP6-18 14:00–16:00

Charging due to the Lorentz force, Kopnin force and slope in the density of states in superconductors

*Marie Ohuchi, Hikaru Ueki, Takafumi Kita

Department of Physics, Hokkaido University

PCP6-19 14:00–16:00

Hall effect in the Abrikosov lattice of type-II superconductors

*Wataru Kohno, Hikaru Ueki, Takafumi Kita

Hokkaido University

Application

Chairperson: Paolo Mele (Muroran Institute of Technology)

PCP7-1 14:00–16:00

Fabrication of Low Temperature LPE-NdBa₂Cu₃O_y Films without Nd/Ba Substitution via Phase Decomposition Process

*Shuhe Funaki, Yugo Miyachi, Keisuke Soeda, Yasuji Yamada

Shimane University

PCP7-2 14:00–16:00

Preparation of $\text{EuBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Films Decomposed From $\text{EuBa}_2\text{Cu}_4\text{O}_8$ Films Deposited by Molten Hydroxide Method

*Yugo Miyachi, Shuhei Funaki, Keisuke Soeda, Yasuji Yamada

Shimane University

PCP7-3 14:00–16:00

Measurements of Shielding Current Decay in YBCO Tapes Formed into One Turn Coil

*Keita Matsuura¹, Akifumi Kawagoe¹, Masataka Iwakuma²

1. Kagoshima university; 2. Kyushu university

PCP7-4 14:00–16:00

Enhancement of J_c in-field for $\text{YBa}_2\text{Cu}_3\text{O}_y$ Coated Conductors Using Vapor-Liquid-Solid Growth Method by Introducing Y_2BaCuO_5

*Shuya Tajiri¹, Yusuke Ichino¹, Yuji Tsuchiya¹, Ataru Ichinose², Yutaka Yoshida¹

1. Department of Energy Engineering and Science, Nagoya University; 2. Central Research Institute of Electric Power Industry

PCP7-5 14:00–16:00

Carrier Density Dependence of the Critical Temperature in BaHfO_3 doped $\text{SmBa}_2\text{Cu}_3\text{O}_y$ Films

*Shun Sato, Yusuke Ichino, Yuji Tsuchiya, Yutaka Yoshida

Department of Energy Engineering and Science, Nagoya University

PCP7-6 14:00–16:00

Improvement of In-Field J_c of $\text{YBa}_2\text{Cu}_3\text{O}_y + \text{BaHfO}_3$ Thin Films by Modified Crystallization Process in TFA-MOD Method

*Hiroshi Horita¹, Ryo Teranishi¹, Yukio Sato¹, Kenji Kaneko¹, Satoshi Awaji², Teruo Izumi³

1. Kyushu University; 2. Tohoku University; 3. National Institute of Advanced Industrial Science and Technology

PCP7-7 14:00–16:00

Study of the superconducting coil effect on current density distribution in BSCCO tape after an over-current pulse

*Tallouli Mohamed¹, Oleg Shyshkin², Satarou Yamaguchi³

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PCP7-8 14:00–16:00

High-Speed Shielding Current Analysis in Cracked HTS Film: Implementation of H-Matrix Method and Variable Reduction Method

*Atsushi Kamitani, Teruo Takayama, Ayumu Saitoh

Yamagata University

PCP7-9 14:00–16:00

Study on Oxygen In-diffusion in Joint Configuration

*Xinyang Wu, Zhiwei Zhang, Yue Zhao, Wei Wu, Junliang Zuo, Yunhao Pan, Zhuyong Li, Zhiyong Hong, Zhijian Jin

Department of Electrical Engineering, Shanghai Jiao Tong University, Shanghai, China

PCP7-10 14:00–16:00

Epitaxial growth of superconducting MgB₂ thin films with a Mg buffer layer at 110°C

*Hiroaki Shishido^{1,2}, Takatoshi Nakagami^{1,2}, Takuya Yoshida¹, Takekazu Ishida^{1,2}

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PCP7-11 14:00–16:00

Upper critical fields and critical current densities of Nb₃Sn doped with (Ti,Ta) of (Ti,Ga)

*Yuya Tanabe¹, Masaru Kiuchi¹, Edmund Soji Otabe¹, Teruo Matsushita¹, Yoshiyuki Monju², Taiji Mizuta², Kyoji Tachikawa³, Kozo Osamura⁴

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PCP7-12 14:00–16:00

Fabrication and Properties of Nb₃Al Superconductor sintered after hot-pressing

Wen Jia Lin¹, Ping Yuan Li², Li Yuan Xu¹, Zhou Yu¹, Yong Liang Chen¹, Xi Feng Pan², Guo Yan², Yong Zhao^{1,3}, *Yong Zhang¹

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