FY2015~2019 MEXT KAKENHI on Innovative Areas #2704

J-Physics 2018: International Workshop on New Materials and Crystal Growth

June 28 – 30, 2018

Awaji Yumebutai International Conference Center

1 Yumebutai, Awaji, Hyogo 656-2306, Japan

June 28 (Thu)

Opening

9:00 – 9:10	Hisatomo Harima Kobe, Japan	Opning remarks

Exotic Superconductors 1

9:10 – 9:40	Paul Canfield Ames, USA	Discovery of spin-vortex-crystal magnetic order in Ni- and Co- doped $CaKFe_4As_4$
9:40 –10:10	Yoshikazu Mizuguchi TMU, Japan	New Strategies for designing bismuth chalcogenide layered superconductors
10:10 – 10:40	Coffee Break	

Exotic Superconductors 2

10:40 – 11:10	Yasuyuki Nakajima Central Florida, USA	Tunable superconductivity and magnetism in topological semimetal candidate *R*PdBi
11:10 – 11:30	Kazutaka Kudo Okayama, Japan	Superconductivity and polymorphism in hexagonal BaPtAs with an ordered honeycomb network
11:30 – 11:50	Nicholas P. Butch NIST, USA	The relationship between structure and superconductivity in Weyl candidate $MoTe_2$
11:50 – 13:30	Lunch	

Exotic Materials 1

13:30 – 14:00	Eric D. Bauer LANL, USA	Novel topological phases in strongly correlated *d* - and *f*-electron materials
14:00 – 14:30	Swee Kuan Goh Hong Kong, China	Quasilinear quantum magnetoresistance in pressure-induced nonsymmorphic superconductor chromium arsenide
14:30 – 15:00	Moise Tchoula Tchokonte Western Cape, South Africa	Magnetocaloric effect and its implementation in critical behavior study of the ferromagnet Nd_2Pt_2In
15:00 – 15:20	Hisashi Kotegawa Kobe, Japan	Quantum criticality of antiferromagnet Mn_3P under pressure
15:20 – 15:50	Coffee Break	

Kondo Materials

15:50 – 16:20	Christoph Geibel MPI Dresden, Germany	New puzzling results on the valence, the magnetism, and the superconductivity in Kondo lattice systems
16:20 – 16:50	Dariusz Kaczorowski Wrocław, Poland	Coexistence of superconductivity and antiferromagnetism in heavy-fermion systems with multiple Kondo sites
16:50 – 17:20	Tatsuma D. Matsuda TMU, Japan	Unusual heavy electron state in Sm- and Yb-based Compounds
17:20 – 17:40	Yu Yamane Hiroshima, Japan	Single-site non-Fermi liquid behaviors in a diluted Pr system $Y_{1-x}Pr_xIr_2Zn_{20}$
17:40 – 18:00	Hiraku Saito KEK, Japan	Current-induced magnetization on Ce-based antiferromagnetic metals
18:00 – 18:20	Chihiro Tabata KEK, Japan	X-ray Crystal Analysis of Toroidally Ordered System UNi_4B

June 29 (Fri)

Exotic Materials 2

9:00 – 9:30	Kosmas Prassides Tohoku, Japan	Carbon-based molecular materials as new electronic materials platforms
9:30 –10:00	Yoshihiko Okamoto Nagoya, Japan	Crystal growth of 5*d* transition metal compounds: β-pyrochlore oxide CsW_2O_6 and one-dimensional telluride Ta_4SiTe_4
10:00 – 10:30	Hiroyuki Yoshida Hokkaido, Japan	Material development towards the perfect frustration on Kagome antiferromagnet
10:30 – 11: 00	Coffee Break	

Actinoide Materials 1

11:00 – 11:30	M. Brian Maple UC San Diego, USA	Novel Electronic Phases and Competing Interactions in the Correlated f-Electron Compound URu_2Si_2
11:30 – 11:50	Taisuke Hattori JAEA, Japan	Strong Ising anisotropy of URu_2Si_2 probed by ^{29}Si NMR on the superconducting state
11:50 –12:10	Shin-ichi Fujimori JAEA, Japan	Electronic structures of strongly correlated uranium compounds studied by three-dimensional ARPES
12:10 – 14:00	Group Photo and Lunch	
14:00 – 16:00	**Poster Session**	

Actinoide Materials 2

16:00 – 16:30	Jiří Pospíšil Charles Univ., Czech Republic	Magnetism throughout the UCoGe-URhGe-UIrGe system studied on alloy single crystals
16:30 – 16:50	Ai Nakamura JAEA, Japan	Single crystal growth and fermi surface properties in thorium compounds
18:00 – 20:00	Banquet	

June 30 (Sat)

Crystal Growth

9:00 – 9:30	Arumugam Thamizhavel Tata Institute, India	Crystal growth of compounds that contain high vapor pressure element as one of the constituents
9:30 –10:00	Jiaqiang Yan Oak Ridge, USA	Flux growth in a horizontal configuration: an analog to vapor transport growth
10:00 – 10:30	Yoshichika Ōnuki Ryukyus, Japan	High-quality single crystal growth in heavy fermion compounds
10:30 – 10:50	Toshiro Takabatake Hiroshima, Japan	Crystal growth and physical properties of Kondo semiconductors
10:50 – 11:20	Break	

Chiral Materials

11:20 –11:50	Yusuke Kousaka Okayama, Japan	Homo-chiral crystallization and helimagnetic chirality in inorganic chiral magnetic compounds
11:50 – 12:20	Shigeo Ohara Nagoya Inst. Tech., Japan	Flux growth and characterization of new ytterbium intermetallic compounds: chiral magnetism and Kondo-lattice properties

Poster Award and Closing

12:20 – 12:40	Presentation of poster award and closing remarks

Poster Session (June 29, 14:00 – 16:00)

P01	Hu Yajian Hong Kong, China	Extremely large magnetoresistance and the complete determination of the Fermi surface topology in the semimetal ScSb
P02	Nonoka Higa JAEA, Japan	NMR studies of the incommensurate helical antiferromagnet $EuCo_2X_2$ (X = As, P)
P03	Rajib Mondal Tata Institute, India	Structural, magnetic and electrical transport properties of single crystalline $CeTAs_2$ (T = Cu, Ag)
P04	Alexander Breindel UC San Diego, USA	Quantum oscillations in PrT_2Cd_{20} (T = Ni, Pd) Compounds
P05	Maria Szlawska Wrocław, Poland	Magnetic ordering in single-crystalline $CeAgAs_2$
P06	Yoshiki Sato Tohoku, Japan	Superconducting properties and anisotropic superconducting gap of $CeIr_3$ single crystal
P07	Arvind Maurya Tohoku, Japan	Single crystal growth and Fermi surface properties of non-centrosymmetric $U_3Ni_3Sn_4$
P08	Yuma Umimoto Tokyo, Japan	A new way to control magnetism in Y-type hexaferrite
P09	Hideki Tou Kobe, Japan	NMR evidence for anomalous magnetic ground state in field-insensitive Heavy Fermion System $SmTa_2Al_{20}$
P10	Minoru Nohara Okayama, Japan	Giant phonon softening and enhancement of superconductivity induced by copper/phosphorus doping of $BaNi_2As_2$
P11	Qun Niu Hong Kong, China	Nonsaturating large magnetoresistance in high carrier density nonsymmorphic metal CrP
P12	Hiroyuki Hidaka Hokkaido, Japan	Low-energy phonon and f electronic state in the cage-structured compound MBe_{13}
P13	Yoshiki Kuwata Kobe, Japan	The ground states of the materials with similar zigzag structure to RuAs
P14	Tsuyoshi Omi Tokyo, Japan	Strong magnetoelastic coupling in multiferroic $CaBaCo_4O_7$
P15	Shingo Araki Okayama, Japan	Antiferromagnetic quantum criticality and anomalous transversal resistivity in $CeRh_2Si_2$
P16	Rikako Yamamoto Hiroshima, Japan	Crystalline electric field ground state and antiferromagnetic order of NdT_2Zn_{20} (T = Co, Rh)
P17	Yuichiro Noma Kobe, Japan	^{73}Ge-NQR studies under pressure on magnetic fluctuations of ferromagnetic superconductor UGe_2
P18	Yuri Fujima Tokyo, Japan	Effects of uniaxial stress on skyrmion-lattice host GaV_4Se_8
P19	Ryuto Nakanishi Hyogo, Japan	Microscopic evidence for the dual Kondo temperatures in $YbXCu_4$ (X = Cu, Ag)
P20	Takashi Matsui Kobe, Japan	NMR study on rattling properties of tetrahedrite $Cu_{12}Sb_4S_{13}$
P21	Yuka Kusanose Hiroshima, Japan	Non-magnetic ground state doublet in a cubc Pr-based compound $PrMgNi_4$
P22	Dai Aoki Tohoku, Japan	Single crystal growth of uranium based heavy fermion compounds
P23	Kaya Kobayashi Okayama, Japan	Superconductivity in trilayer $(PbSe)_n(TiSe_2)_m$ misfit compound
P24	Tetsuya Takeuchi Osaka, Japan	Spin-glass behavior in the flux-grown single crystal $EuCu_2Si_2$

P25	Katsuhiro Suzuki Ritsumeikan University, Japan	Superconducting gap anisotropy in BiS_2 layered superconductors
P26	Tetsuro Kubo Okayama Univ. of Science, Japan	NMR studies on magnetic fluctuations at low temperatures in PrT_2Al_{20} (T = Nb, Ta)
P27	Tatsuki Sato Tokyo, Japan	Magnetoelectric effect in a newly synthesized helical magnet $Ni_2In_{1-x}A_xSbO_6$ (A_x = $Cr_{0.1}$, $Fe_{0.05}$)
P28	Tatsuya Yanagisawa Hokkaido, Japan	Anisotropic elastic response in the hidden order phase of URu_2Si_2 under high magnetic fields
P29	Akinari Kohriki Hokkaido, Japan	Magnetization measurement of $Ce(Ru_{1-x}Rh_x)_2Al_{10}$ (x = 0, 0.05) under electric current
P30	Raquel A Ribeiro UFABC, Brazil / Iowa, USA	Superconductivity and structural phase transition in $BaBi_3$ under pressure