

Program Time Table

August 9, 2013

| Time | Chair | | |
|---|-------|-----------|---|
| Session 0 <i>Opening</i> | | | |
| 08:45-08:55 | 10 | | Opening Address E.Torikai(Univ. Yamanashi) |
| 08:55-09:35 | 30+10 | Torikai | S-1 K.Nagamine(RIKEN,UCR,KEK) <i>Past, Present and Future of ultra-slow muons</i> |
| Session 1 <i>Fundamentals 1</i> | | | |
| 09:35-10:05 | 20+10 | Torikai | I-1 A.P.Mills (UC Riverside) <i>Precision experiments with ultraslow muons</i> |
| 10:05-10:35 | 20+10 | | I-2 G. Gabrielse (Harvard Univ.) <i>Particle Dipole Moments: Most Stringent Tests of the Standard Model</i> |
| 10:35-10:55 | 20 | | Coffee Break |
| Session 2 <i>USM method</i> | | | |
| 10:55-11:20 | 20+5 | Morenzoni | O-1 Y.Miyake (KEK) <i>Status of Ultra Slow Muon Microscopy (A01)</i> |
| 11:20-11:40 | 15+5 | | O-2 N.Saito (RIKEN) <i>Pulsed Coherent Lyman-α Resonance Radiation Generated by Two-Photon Resonance Four-Wave Mixing in Kr-Ar Gas</i> |
| 11:40-12:05 | 20+5 | | I-3 M.Okamura (BNL) <i>Linear Accelerator for Muon</i> |
| 12:05-12:30 | 20+5 | | I-4 Y.Nagatani (NIPS) <i>Transmission Muon Microscopy Project</i> |
| 12:30-14:00 | | | Lunch |
| Session 3 <i>Fundamentals 2</i> | | | |
| 14:00-14:30 | 20+10 | Strasser | I-5 B.L.Roberts (Boston Univ.) <i>The Fermilab Muon g-2 Experiment</i> |
| 14:30-14:50 | 15+5 | | O-3 T.Mibe (KEK) <i>Measurement of muonium emission from silica aerogel</i> |
| 14:50-15:10 | 15+5 | | O-4 R.Plunkett (Fermi Lab.) <i>Possible Development of MuSR Capacity at Fermilab Project X</i> |
| 15:10-15:40 | 20+10 | | I-6 E.Won (Korea Univ.) <i>A proposed muon facility at RAON/Korea</i> |
| 15:40-16:00 | 15+5 | | O-5 T.Nagatomo(KEK) <i>Ultra Slow Muon Beam Line under Construction in J-PARC</i> |
| 16:00-16:20 | 20 | | Coffee Break |
| Session 4 <i>Magnetism with micro-beam</i> | | | |
| 16:20-16:50 | 20+10 | Nishida | I-7 Y.Maeno(Kyoto Univ.) <i>Topological Quantum Phenomena</i> |
| 16:50-17:10 | 15+5 | | O-6 W.Higemoto(JAEA) <i>Studies on chiral-superconductivity in Sr_2RuO_4 probed by μSR</i> |
| 17:10-17:30 | 15+5 | | O-7 H.Seo(RIKEN) <i>Theoretical studies of molecular spin liquid materials</i> |

August10, 2013

| Time | | Chair | |
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| Session 5 <i>Catalysis</i> | | | |
| 08:45-09:15 | 20+10 | Fukutani | I-8 M.Yamauchi (Kyushu Univ.) <i>Hydrogen-Related Properties of Metal and Alloy Nanoparticles</i> |
| 09:15-09:35 | 15+5 | | O-8 A.Pietropaolo (Università di Catanzaro) <i>Molecular Mechanism of Polyacrylate Helix Sense Switching Across Its Free Energy Landscape</i> |
| 09:35-09:55 | 15+5 | | O-9 F.Mauriello (Università Mediterranea di Reggio Calabria) <i>Transfer hydrogenolysis of glycerol promoted by bimetallic palladium catalysts</i> |
| 09:55-10:15 | 15+5 | | O-10 K.Shimomura (KEK) <i>μSR studies on the electric structure an isolated hydrogen and oxygen vacancy in oxides</i> |
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| Session 5b β-NMR | | | |
| 10:15-10:45 | 20+10 | Fukutani | I-9 R.F.Kiefl (Univ. British Columbia, TRIUMF) <i>Recent progress with β-NMR at ISAC</i> |
| 10:45-11:00 | 15 | | Coffee Break |
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| Session 6 <i>Ion diffusion</i> | | | |
| 11:00-11:30 | 20+10 | Sugiyama | I-10 P.Heijmans(Leibniz Universität Hannover) <i>Ion Diffusion in Solids and Interfaces</i> |
| 11:30-12:00 | 20+10 | | I-11 R.Kanno (Tokyo Inst. of Technology) <i>Structural studies on lithium battery materials - New materials and electrode / electrolyte interface -</i> |
| 12:00-12:20 | 15+5 | | O-11 H.Nozaki(Toyota RD) <i>Li-ion dynamics in $Li_{5+x}La_3Zr_xNb_{2-x}O_{12}$</i> |
| 12:20-12:30 | | | Photograph |
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| 13:00-18:00 | | | |
| Excursion | | | |
| 18:00-20:00 | | | |
| Banquet | | | |

August 11, 2013

| Time | | Chair | |
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| Session 7 Superconductivity 1 | | | |
| 08:45-09:15 | 20+10 | Yamada | I-12 T.Lemberger (The Ohio State Univ.) <i>Superconductivity in Thin and Ultrathin Films – Novel Materials and Two Dimensionality</i> |
| 09:15-09:35 | 15+5 | | O-12 N.Nishida (Toyota Physical & Chemical Research Inst.) <i>Vortex Dynamics in Type-II Superconductors studied by STM/STS and Ultra slow Muon Spin Rotaion</i> |
| 09:35-10:05 | 20+10 | | I-13 Y.Krockenberger (NTT Basic Research Laboratories) <i>Competing electronic interactions driven by oxygen coordination in two-dimensional cuprates</i> |
| 10:05-10:25 | 15+5 | | O-13 K.M.Kojima (KEK) <i>Bulk superconductivity in undoped $T'-La_{1.9}Y_{0.1}CuO_4$ probed by Low Energy muon spin rotation</i> |
| 10:25-10:40 | 15 | | Coffee Break |
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| Session 8 Superconductivity 2 | | | |
| 10:40-11:10 | 20+10 | Kadono | I-14 E.Morenzoni (PSI) <i>Low energy muons at PSI: examples of investigations of superconducting and magnetic properties</i> |
| 11:10-11:30 | 15+5 | | O-14 T.Adachi(Sophia Univ.) <i>Impurity-Induced Development of the Spin Correlation in Iron-Chalcogenide Superconductors</i> |
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| Session 9 Bio and Hydrogen | | | |
| 11:30-11:50 | 15+5 | Niimura | O-15 Y.Sugawara (Kitasato Univ.) <i>Hydration Effects on Electron Transfer in Biological Systems Studied by μSR</i> |
| 11:50-12:10 | 15+5 | | O-16 K. Fukutani (Univ. Tokyo) <i>Hydrogen on amorphous solid water</i> |
| 12:10-12:30 | 15+5 | | O-17 H.Ariga (Hokkaido Univ.) <i>Detection of oxygen vacancy in TiO_2 single crystal by μSR</i> |
| 12:30-14:00 | | | Lunch |
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| Session 10 Magnetism | | | |
| 14:00-14:30 | 20+10 | Koda | I-15 A.Suter(PSI) <i>Two-Dimensional Magnetic and Superconducting Phases in Metal-Insulator $La_{2-x}Sr_xCuO_4$ SuperlatticesMeasured by Muon Spin Rotation</i> |
| 14:30-15:00 | 20+10 | | I-16 T.Hitosugi(Tohoku.Univ.) <i>Scanning tunneling spectroscopic study of $LaAlO_3/SrTiO_3$ heterostructure</i> |
| 15:00-15:20 | 15+5 | | O-18 J.Kishine(The Open University of Japan) <i>Spin dynamics of chiral helimagnet probed by ultraslow muon:theoretical perspectives</i> |
| 15:20-15:40 | 15+5 | | O-19 T.Sakai(JAEA, Hyogo Univ.) <i>Quantum Spin Nanotubes -Exotic Magnetism and Chirality-Induced Superconductivity-</i> |
| 15:40-17:40 | 120 | Koike | Poster Session |

August 12, 2013

| Time | | Chair | |
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| Session 11 Spontronics | | | |
| 08:45-09:15 | 20+10 | Yoshino | I-17 H.W.K.Tom (UCR) <i>Prospects for Ultra Slow Muon Studies in Spintronics</i> |
| 09:15-09:35 | 15+5 | | O-20 S.R. Dunsiger(Technische Universität München) <i>Investigation of Ferromagnetic Semiconductors through Depth Resolved Spin Resonance Techniques</i> |
| 09:35-09:55 | 15+5 | | O-21 T.Ziman(Inst. Laue Langevin and CNRS) <i>Spin-dependent scattering and charge fluctuations of negatively charged muonium</i> |
| 09:55-10:15 | 15+5 | | O-22 T.U.Ito (JAEA) <i>Pilot Experiment for Microscopic Detection of Spin-wave Spin Current in Yttrium Iron Garnet Generated by the Spin-Seebeck Effect</i> |
| 10:15-10:30 | 15 | | Coffee Break |
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| Session 12 Hydrogen isotope | | | |
| 10:30-10:00 | 30+10 | Nakanishi | |
| 11:00-11:20 | 20+5 | | I-19 H.Kasai (Osaka Univ.) <i>Heavy Fermion systems for μSR and Naniwa Series for Quantum Simulation Materials Design</i> |
| 11:35-11:55 | 15+5 | | O-23 K.Asakura (Hokkaido Univ.) <i>Defect and its interaction with hydrogen on the SnO_2</i> |
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| Session 13 Summary | | | |
| 11:55-12:15 | 20 | | R.Kadono(KEK) / M.Iwasaki(RIKEN) |

List of Poster Presentation

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| P-1 | H. Nakanishi (Osaka Univ.) | Quantum states of positive muon in materials - The first principles simulation - |
| P-2 | J. Sugiyama (Toyota RD) | Macroscopic electrochemical properties clarified by microscopic measurements; present and future |
| P-3 | I.Umegaki (Toyota RD) | Dynamics in MgH ₂ above ambient temperature |
| P-4 | Y. Tanabe (Tohoku Univ.) | Superconducting Domains above the Critical Temperature in Bi2212 Cuprate Superconductors Detected by longitudinal-field μ SR |
| P-5 | K.M.Suzuki (Tohoku Univ.) | Magnetic Ground State of the Fe-substituted La _{2-x} Sr _x Cu _{1-y} Fe _y O ₄ |
| P-6 | K. Tsutsumi (Tohoku Univ.) | Oxygen-reduction and Ce-doping effects on the spin correlation in T'-structured Pr _{1.4-x} La _{0.6} Ce _x CuO _{4-δ} |
| P-7 | S. Yoshizawa(Tokyo Inst.of Technology) | Vortex Core States in Bi ₂ Sr ₂ CaCu ₂ O _x Studied by High-Resolution Scanning Tunneling Spectroscopy |
| P-8 | A.Takahashi (Tohoku Univ.) | μ SR study of different magnetic states in electron-doped Pr _{1.3-x} La _{0.7} Ce _x CuO _{4+δ} (x = 0.10) single crystals |
| P-9 | K.Nagatani (Tokyo Inst. of Technology) | Rearrangement of Fast Driven Abrikosov Lattice in Amorphous Superconducting Films |
| P-10 | S. Kaneko(Tokyo Inst. of Technology) | Local Density of States in URu ₂ Si ₂ studied by LT-STS |
| P-11 | C. Tabata (Hokkaido Univ.) | Muon Spin Relaxation Study of SmBe ₁₃ |
| P-12 | M. Miyagawa (Hiroshima Univ.) | The relation between magnetic behaviors and crystal defect in Cr _{1/3} NbS ₂ |
| P-13 | T.Goto (Sophia Univ.) | Proposal for μ SR-based detection of spin-to-surface locking in the surface of topological insulator |
| P-14 | T. Goto (Sophia Univ.) | The ground state of disordered quantum spin system (CH ₃) ₂ CHNH ₃ Cu(Cl _x Br _{1-x}) ₃ with x<0.45 |
| P-15 | H.Kuroe (Sophia Univ.) | Muon spin spectroscopy in multiferroic (Cu,Zn) ₃ Mo ₂ O ₉ |
| P-16 | H.Matsuura (Univ. Tokyo) | Derivation of Dzyloshinskii-Moriya Interaction on Metallic Chiral Magnet CrNb ₃ S ₆ |
| P-17 | Y.Kousaka(Aoyama Gakuin Univ.) | Chiral Magnetic Soliton Lattice in MnSi |
| P-18 | C. Kato (Hiroshima Univ.) | The Effect of Irradiation on a Preyssler-type Polyoxometalate |
| P-19 | J. Han (Hiroshima Univ.) | Crystal Growth and Magnetic Properties of 2D Perovskite Organic-Inorganic Hybrid Compound |
| P-20 | S. Kishiguchi (Saitama Univ.) | Thickness dependence of the physical properties of organic superconductor κ -(BEDT-TTF) ₂ Cu[N(CN) ₂]Br fixed on the glass substrate and possible application to ultra slow muon |
| P-21 | N. Niimurra (Ibaraki Univ.) | Visualization of the electron transfer associated with biochemical reaction process by the ultra-slow muon |
| P-22 | A.D.Pant (Univ. Yamanashi) | First Principles Study of Ultra Slow Muon on Li Adsorbed Graphene with Co-adsorption of Hydrogen Atoms and/or Molecules |

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| P-23 | T. Hashizume (Hitachi Ltd, Tokyo Inst. of Technology, Tohoku Univ.) | Kelvin probe force microscopy of interfaces |
| P-24 | K. Asakawa (Univ. Tokyo) | Electronic structure of the Fe ₃ O ₄ (111) surface |
| P-25 | S.Kaku (Tokyo Inst. of Technology) | Initial growth of Cr/Au(111) ultrathin film |
| P-26 | K. Mibu(Nagoya Inst. of Tecnology) | Investigations on Interface Magnetism of Heusler Alloy Films Using Local Probes |
| P-27 | T.Kubota (Shimane Univ.) | Local structure analysis of selectively prepared active sites of Co-Mo sulfide catalysts |
| P-28 | D.Nozaki(Tokyo Inst. of Technology) | Magnetic anisotropy and anisotropic magneto-resistance in GaMnAs depending on layer thickness |
| P-29 | K.Nagamine (RIKEN,UCR,KEK) | Exploration of Spintronics Materials with Ultra-Slow Muons and Polarized Electron Gun |
| P-30 | K.Nagamine (RIKEN,UCR,KEK) | Production of Slow Polarized Negative Muons and Possible Production of the $\mu^+\mu^-$ Atoms |
| P-31 | Y.Ikeda (KEK) | Status of Superomega muon beamline for ultra slow muon beam |
| P-32 | S. Makimura (KEK) | Development of Manufacturing Method of Highly Pure Tungsten Foil for Thermal Muonium Generation |
| P-33 | S. Okada (RIKEN) | Development of room-temperature thermal-muonium-emitting material for ultra-slow muon production and a future plan of ultra-slow muon beamline at RIKEN-RAL |
| P-34 | T. Suzuki (Tokyo Univ.of Science) | Observation of Muonium Emission from Alkali-Metal Coated Tungsten Surfaces |
| P-35 | W. Higemoto (JAEA) | Ultra-slow μ SR spectrometer at J-PARC |
| P-36 | K.S. Tanaka (Univ. Tokyo) | Measurement of muonium hyperfine splitting at J-PARC |
| P-37 | N. Kawamura (KEK) | H line; a Beam line for fundamental physics in J-PARC |
| P-38 | S. Kanda (Univ. Tokyo) | Development of high-rate positron tracker for the muonium production experiment in J-PARC |
| P-39 | T.U.Ito (JAEA) | Development of a High-Resolution Beam Imaging System for Pulsed Muon Beams |
| P-40 | K. Okamura (Megaopto Co. Ltd, RIKEN) | Temporally Resolved Spectral Structure of 821nm Broad-Area Laser Diode Seeder for Muonium Lyman-alpha Generation |
| P-41 | K. Miyazaki (RIKEN) | Tunable 820.65 nm light source by injection-seeded optical parametric oscillator and amplifier for Muonium Lyman- α Generation |
| P-42 | Y.Oishi (RIKEN) | All-solid-state laser amplifiers for intense Lyman- α generation |
| P-43 | J. Nakamura (KEK) | Transport of coherent VUV radiation to Muon U-line for the Ultra Slow Muon Microscope |
| P-44 | N.Hayasizaki (Tokyo Inst.of Technology) | Development of ultra-slow muon linear accelerator |

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| P-45 | A.Manabe (Univ. Yamanashi) | Quartz Microbalance Coverd by Solid Rare Gas - An Ideal Substrate to Study Interreration Between Spin and Geometric Arrangement in Spin Cluster |
| P-46 | S.Kubota (Univ. Yamanashi) | Self-Assembling of Spim-Polarized Cold Cecium Atoms -Future Target of Ultra Slow Muon |