



**International Conference on Strongly Correlated Electron Systems**  
**September 27 to October 02, 2021**  
**Brazil - Online**

**SCES 2020/21 – Brazil – Online**

**FULL PROGRAM**

**September 27 to October 02, 2021**

**Plenary Session M1A – Monday 27, 08:20 – 10:15 - Chair: Cris Adriano (IFGW/Unicamp)**

**08:20–8:45** – Opening&Prizes Cerimony

**08:45–9:30** Thereza Paiva – Spin and charge correlations in the 2D Hubbard Model - Universidade Federal do Rio de Janeiro (Invited)

**09:30–10:15** Jeff Lynn- Magnetoresistive Switching and Topological Hall Effect Controlled by Novel Magnetic Textures – NIST (Invited)

**Parallel Session M2A – Unconventional Superconductivity – Monday 27, 10:45 – 12:30 - Chair: Priscila F. S. Rosa (LANL)**

**10:45–11:15:** Knight-shift measurements on  $UTe_2$  in the SC state- Kenji Ishida - Kyoto University (Invited)

**11:15–11:30:** High pressure study of  $UTe_2$  in pulsed magnetic field - Daniel Braithwaite - Grenoble INP and CEA (Oral)

**11:30–11:45:** Coexistence of Charge Density Wave and Superconductivity in a correlated regime - Leonardo Costa Prauchner - Universidade Federal do Rio Grande do Sul (Oral)

**11:45–12:00:** Singlet-triplet pairing in Ising superconductors - David Mockli - The Hebrew University of Jerusalem (Oral)

**12:00–12:15:** Time-reversal symmetry breaking in superconductors through loop supercurrent order - Sudeep Kumar Ghosh - University of Kent (Oral)

**12:15–12:30:** Metamagnetic phase transition in ferromagnetic superconductor URhGe - Vladimir Mineev - Landau Institute for Theoretical Physics (Oral)

**Parallel Session M2B – Strong spin-orbit interaction in correlated systems I – Monday 27, 10:45 – 12:30 – Chair: Arun Paramakanti (U. Toronto)**

**10:45–11:15:** From spin-orbital entanglement in  $Sr_2RuO_4$  to spin-orbit controlled MIT in  $Sr_2IrO_4$  - Andrea Damascelli - University of British Columbia (Invited)

**11:15–11:45:** Spin-orbit coupling and quantum interference effects in the transport properties of tellurium - Carsten Enderlein - Universidade Federal do Rio de Janeiro (Invited)

**11:45 –12:00:** Anomalous transport properties in the antiferromagnetic Weyl semimetals  $Mn_3X$ ,  $X = Sn, Ge$  - Takahiro Tomita - University of Tokyo (Oral)

**12:00-12:15:** Transport properties in the non-Fermi liquid phase of isotropic Luttinger semimetals - Hermann Freire - Universidade Federal de Goiás (Oral)

**12:15–12:30:** Anomalous transport in spin-orbit and Weyl systems - normally explained - Klaus Morawetz - Muenster University of Applied Sciences (Oral)

**Parallel Session M2C – Heavy Fermion Monday 27, 10:45 – 12:30 - Chair: Ricardo Donizeth dos Reis**

**10:45–11:15:** Classical multicritical points in the Underscreened Anderson Lattice model of itinerant 5f electrons - Sérgio Magalhães - Universidade Federal do Rio Grande do Sul (Invited)

**11:15–11:30:** Enhanced Spin Orbit Interaction in Strongly Correlated Materials - Peter Riseborough - Physics / Temple University / Temple University (Oral)

**11:30–11:45:** Lifshitz transition underlying the metamagnetic transition of  $UPt_3$  - Stephen Julian - Department of Physics / N/A / University of Toronto (Oral)

**11:45–12:00:** Magnetic phase diagram of  $U\text{Ir}_2\text{Si}_2$  single crystal - Magdalena Majewicz - Institute of Low Temperature and Structure Research / Polish Academy of Sciences (Oral)

**12:00–12:15:** Magnetic phase diagrams of  $UPd_2Si_2$ : searching for Lifshitz point - Maria Szlowska - Institute of Low Temperature and Structure Research / Polish Academy of Sciences (Oral)

**12:15–12:30:** Low-dimensional antiferromagnetic fluctuations in the superconductor  $UTe_2$  - William Knafo - CNRS / LNCMI-Toulouse / LNCMI (Oral)

**Parallel Session M3A – Prize Winners – Monday 27, 14:00 – 15:00**

**14:00–14:30: Bryan R. Coles Prize award** - Correlation-driven electronic reconstruction in iron-based superconductors - Ming Yi - Rice University

**14:30–15:00: Nevill F. Mott Prize award** - Solvable model for non-Fermi liquid behavior and quantum criticality pairing - Yuxuan Wang - University of Florida

**Parallel Session M4A – Unconventional Superconductivity – Monday 27, 16:00 – 17:45 - Chair: Michael Nicklas (Max Planck - Dresden)**

**16:00–16:30:** Boost and Suppression of High Field Superconducting Phases in  $UTe_2$  under Pressure - Nicholas Butch - NIST (Invited)

**16:30–17:00:**  $UTe_2$  under pressure - Priscila F. S. Rosa - LANL (Invited)

**17:00–17:15:**  $UTe_2$  from a crystallographic lens - Ashley Weiland - LANL (Oral)

**17:15–17:30:** Topology enabled unconventional superconductivity in a time-reversal symmetry-breaking bulk superconductor - Valentin Taufour - UC Davis (Oral)

**17:30–17:45:** - Competition between superconductivity and charge density wave in multiband intermetallic systems - Nei Lopes - Universidade do Estado do Rio de Janeiro (Oral)

**Parallel Session M4B – Correlated Topological Phases – Monday 27, 16:00 – 17:45 - Chair: Eduardo Miranda (Unicamp)**

**16:00–16:15:** Multiple polyamorphisms and superconductivity in a Ce-based metallic glass - Gaston Garbarino - ESRF (Oral)

**16:15 - 16:30:** Anisotropy in frustrated ferromagnetic spin-1/2 chain B - Matej Pregelj - Jožef Stefan Institute (Oral)

**16:30–16:45:** Chiral anomaly and electronic transition in Hexagonal  $Mn_3Ge$  - Venus Rai - Jülich Centre for Neutron Science - 2 / Forschungszentrum Jülich (Oral)

**16:45–17:00:** Surface excitations relaxation in the Kondo insulator  $Sm_{1-x}Gd_xB_6$  - Jean C. Souza - Universidade Estadual de Campinas, Instituto de Física “Gleb Wataghin” (Oral)

**17:00–17:15:** Observation of multiple nodal-lines in  $SmSbTe$  - Gyanendra Dhakal - Physics / College of Sciences / University of Central Florida (Oral)

**17:15–17:30:** Physical Properties of Antiferromagnetic Topological Material  $EuAuAs$  - Zakir Hossain - Institute of Low Temperature and Structure Research, Wroclaw 50-422, Poland (Oral)

**17:30–17:45:** Temperature-dependent electronic structure in a higher-order topological insulator candidate  $EuIn_2As_2$  - Sabin Regmi - Physics / College of Sciences / University of Central Florida (Oral)

**Parallel Session M4C – Quantum Phase Transitions and Quantum Magnetism – Monday 27, 16:00 – 17:45 - Chair: Eduardo Granado (UNICAMP)**

**16:00–16:30:** Avoided quantum criticality in metallic ferromagnets under pressure: few recent examples - Sergey Bud'ko - DMSE / Ames Laboratory (Invited)

**16:30–16:45:** Quantum Criticality of the Quasi-One-Dimensional Heavy Fermion Material  $YbFe_5P_3$  - Eric Bauer - Los Alamos National Laboratory (Oral)

**16:45–17:00:** Magnetic frustration and paramagnetic state transport anomalies in  $Ho_4RhAl$  and  $Er_4RhAl$ : Possible test cases for newly identified roles of itinerant electrons - Echur V Sampathkumaran - Tata Institute of Fundamental Research (Oral)

**17:00–17:15:** Excitonic insulator and its failed quantum phase transition in  $Ta_2Ni(Se_{1-x}S_x)_5$  - Pavel Volkov - Rutgers University (Oral)

**17:15–17:30:** Quantum criticality in charge density wave systems: An x-ray diffraction approach - Fellipe Carneiro - Centro Brasileiro de Pesquisas Físicas (Oral)

**17:30–17:45:** Competing interactions in Dy and Tb garnets - Françoise Damay - CEA-Saclay / Laboratoire Léon Brillouin (Oral)

**Plenary Session T1A – Tuesday 28, 08:45 – 10:15 - Chair: Eduardo Miranda - (Unicamp)**

**08:45–9:30** Hong Ding - Iron-based superconductors as a new Majorana playground - China Academy of Science (Invited)

**09:30–10:15** Orbital selective dynamics in Fe-based systems using time-resolved ARPES - Kalobaran Maiti - TIFR (Invited)

**Parallel Session T2A – Unconventional Superconductivity – Tuesday 28, 10:45 – 12:30 - Chair: Rebecca Flint (Iowa State University)**

**10:45–11:15:** Towards the Comprehension of High-T<sub>c</sub> Superconductivity in Cuprates - Eduardo Marino - Universidade Federal do Rio de Janeiro (Invited)

**11:15–11:45:** Hyperuniformity in vortex matter in type-II superconductors - Yanina Fasano - Centro Atómico Bariloche (Invited)

**11:45–12:00:** Magnetic quantum phase transition at the pseudogap boundary in La<sub>1.8-x</sub>Eu<sub>0.2</sub>Sr<sub>x</sub>CuO<sub>4</sub> in high fields - Anne Missiaen - (LNCMI-EMFL) – CNRS – Grenoble (Oral).

**12:00–12:15:** Phase separation in high-T<sub>c</sub> cuprates - Alexander Moskvina - Ural Federal University (Oral)

**12:15–12:30:** - Neutron scattering and pairing mechanisms in underdoped cuprate ladder Sr<sub>2.5</sub>Ca<sub>11.5</sub>Cu<sub>24</sub>O<sub>41</sub> - Allen Scheie - Oak Ridge National Laboratory (Oral)

**Parallel Session T2B – Quantum Phase Transitions and Quantum Magnetism – Tuesday 28, 10:45 – 12:30 - Chair: E.V. Sampathkumaran (Tata Institute of Fundamental Research)**

**10:45–11:15:** Quantum criticality from Kondo destruction: Fermi-surface jump to high temperature superconductivity - Qimiao Si - Rice University (Invited)

**11:15–11:45:** Quantum criticality and strange metal behavior in a pure ferromagnetic Kondo lattice - Huiqiu Yuan – Zhejiang University (Invited)

**11:45–12:00:** RKKY interaction and two Kondo impurities: the complete phase diagram - Krzysztof Wójcik - Polish Academy of Sciences (Oral).

**12:00–12:15:** Dynamical correlations in the Instanton Crystal phase - Grigorii Starkov - Ruhr Universität Bochum (Oral)

**12:15–12:30:** - Magnetoelastic properties and critical fluctuations - UIrSi<sub>3</sub> case study - Tetiana Haidamak - Charles University (Oral)

**Parallel Session T2C – Strong spin-orbit interaction in correlated systems II – Tuesday 28, 10:45 – 12:30 – Chair: Natalia Drichko (Johns Hopkins Univ.)**

**10:45–11:15:** Octupolar order in d-orbital systems - Arun Paramakanti - University of Toronto (Invited)

**11:15–11:30:** Resonant tender x-ray scattering from Ru-4d conduction electrons in the emergent inductor  $Gd_3Ru_4Al_{12}$  - Max Hirschberger - The University of Tokyo (Oral)

**11:30–11:45:** Magnetic Structures of  $RNiSi_3$  (R = Gd, Tb and Ho) - Rodolfo Tartaglia – The University of Campinas (Oral)

**11:45–12:00:** Multipolar orders in spin–orbit-coupled 5d Mott insulators  $A_2BReO_6$  - Daigorou Hirai - University of Tokyo (Oral)

**12:00–12:15:** Antiferromagnetic antiskyrmions and skyrmions in magnetic Dresselhaus metals - Arnob Mukherjee - Indian Institute of Science Education and Research (Oral)

**12:15–12:30:** Antiskyrmions and Bloch Skyrmions in Magnetic Dresselhaus Metals - Deepak S. Kathyat - Indian Institute of Science Education and Research (Oral)

**Parallel Session T3A – Unconventional Superconductivity – Tuesday 28, 14:00 – 15:00 - Chair: Eduardo Marino (Universidade Federal do Rio de Janeiro)**

**14:00–14:15:** Quasi-static magnetism at the pseudogap critical point in a high- $T_c$  cuprate superconductor - David Leboeuf - LNCMI-EMFL-CNRS Grenoble (Oral)

**14:15–14:30:** Experimental observation of electron-exciton coupling in high- $T_c$  cuprates - Francesco Barantani - University of Geneva (Oral)

**14:30–14:45:** The extremely-2D cuprate: the peculiar physics of the infinite layer  $CaCuO_2$  - Giacomo Ghiringhelli - Politecnico di Milano (Oral)

**14:45–15:00:** Charge density waves and Fermi-surface reconstruction in the clean overdoped cuprate superconductor  $Tl_2Ba_2CuO_{6+\delta}$  - Charles Tam - University of Bristol (Oral)

**Parallel Session T3B – Non-equilibrium phenomena in strongly correlated systems I – Tuesday 28, 14:00 – 15:00 – Chair: Gajendra Singh Bisht (Indian Institute of Technology Guwahati)**

**14:00–14:15:** Photo-induced Nonequilibrium Phenomena of Quasicrystalline Excitonic Insulator - Ken Inayoshi - Tokyo Institute of Technology (Oral)

**14:15–14:30:** Electric field driven out of equilibrium insulator to metal transition in Mott insulators - Pascale Diener - Lille University (Oral)

**14:30–14:45:** Interplay of exchange field and Kondo effect in quantum impurity systems out of equilibrium - Anand Manaparambil - Adam Mickiewicz University in Poznan (Oral)

**14:45–15:00:** Non-equilibrium quantum critical steady state: Transport through a dissipative resonant level - Chung-Hou Chung - National Yang-Ming Chiao-Tung University (Oral)

**Parallel Session T3C – Materials Design and New/Advanced Materials and Metal-Insulator Transitions – Tuesday 28, 14:00 – 15:00 – Chair: Martin Dressel (Universität Stuttgart)**

**14:00–14:15:** Purcell-like enhancement of electron-phonon interactions in moire superlattices: Linear-T resistivity and cooling power - Hiro Ishizuka - Tokyo Institute of Technology (Oral)

**14:15–14:30:** Localised-hopping to extended-state transport: Investigating the insulator to metal transition in vacancy doped SmN - William Holmes-Hewett - Victoria University of Wellington (Oral)

**14:30–14:45:** Experimental and first-principles studies of superconductivity in polycrystalline topological semimetal SnTaS<sub>2</sub> - Soumen Ash - Institute of Nano Science and Technology (Oral)

**14:45–15:00:** Anomalous transport in metallic unconventional clathrate BaNi<sub>2</sub>P<sub>4</sub> - Makariy Tanatar - Iowa State University (Oral)

**Plenary Session - Poster Awards & Best Poster Express Presentation - Tuesday 28, 15:00 – 15:30 - Chair: Pascoal G. Pagliuso**

**Parallel Session T4A – Unconventional Superconductivity – Tuesday 28, 16:00 – 17:45 - Chair: Nicholas Butch (NIST)**

**16:00–16:30:** Majorana state in a pinned vortex at the surface of a topological insulator with proximity induced superconductivity in a magnetic field - Pedro Schlottmann - Florida State University (Invited)

**16:30–16:45:** Vortex lattice studies in UPt<sub>3</sub> - Morten Eskildsen -University of Notre Dame (Oral)

**16:45–17:00** Non-monotonic electron interactions in the copper oxide plane - Fabio Boschini - INRS (Oral)

**17:00–17:15:** Non-symmorphic symmetry and field-driven odd-parity pairing in CeRh<sub>2</sub>As<sub>2</sub> - David Cavanagh - University of Otago (Oral).

**17:15–17:30:** Superconductivity-driven ferromagnetism and spin manipulation using vortices in the magnetic superconductor  $\text{EuRbFe}_4\text{As}_4$ , Shigeyuki Ishida - National Institute of Advanced Industrial Science and Technology (Oral).

**17:30–17:45:** Suppression of superconductivity by spin fluctuations - Hiroyuki Yamase - National Institute for Materials Science (Oral).

**Parallel Session T4B – Kondo effect and valence fluctuations I – Tuesday 28, 16:00 – 17:45 - Chair: Victor Quito (Iowa State University)**

**16:00–16:30:** Magnetic instabilities and Kondo lattice behaviour of  $\text{YbPt}_5\text{B}_2$ , a new boride compound - Ernst Bauer - TU Wien (Oral)

**16:30–16:45:** Single crystalline  $\text{EuPd}_2\text{Si}_2$ : Exploring the effect of Ge-doping on the valence transition - Kristin Kliemt - Goethe-Universität Frankfurt (Oral)

**16:45–17:00:** Valence-instability-driven large magnetostriction in  $\text{CeCo}_{1-x}\text{Fe}_x\text{Si}$  as antiferromagnetic order is suppressed - Víctor Félix Correa - Centro Atómico Bariloche (Oral)

**17:00–17:15:** New results on the Kondo effect in systems with atoms and molecules on metallic surfaces - Armando Aligia - Centro Atómico Bariloche and Instituto Balseiro (Oral)

**17:15–17:30:** Algebraic Hastic Order in One-Dimensional Two-Channel Kondo Lattice - Milan Kornjaca - Iowa State University (Oral)

**17:30–17:45:** Antiferromagnetic correlations in a valence fluctuating kagome lattice  $\text{CeIrSn}$  - Yasuyuki Shimura - Hiroshima University (Oral)

**Parallel Session T4C – Quantum Phase Transitions and Quantum Magnetism – Tuesday 28, 16:00 – 17:45 - Chair: Daniel Haskel (Argonne National Laboratory)**

**16:00–16:30:** Quantum Criticality in a Layered Iridate - Eduardo Granado - University of Campinas (Invited)

**16:30–16:45:** Single crystal growth and low temperature properties of triangular lattice antiferromagnet  $\text{Ca}_3\text{NiNb}_2\text{O}_9$  - Dibyata Rout - Indian Institute of Science Education and Research Pune (Oral)

**16:45–17:00:** Magnetic properties of heavy rare-earth  $\text{A}_2\text{Ir}_2\text{O}_7$  pyrochlore iridates - Milan Klicpera - Charles University (Oral)

**17:00–17:15:** Magnetic monopole density and antiferromagnetic domain control in spin-ice iridates - Kathrin Goetze - University of Warwick (Oral)

**17:15–17:30:** Spin dynamics and unconventional Coulomb phase in  $\text{Nd}_2\text{Zr}_2\text{O}_7$  - Sylvain Petit - CEA-CNRS (Oral)



**17:30–17:45:** Ferro-octupolar order in  $d^2$  double perovskites of Osmium from first principles - Dario Fiore Mosca - University of Vienna (Oral)

**Plenary Session W1A – Wednesday 29, 08:45 – 10:15 - Chair: Silke Paschen (TU Wien)**

**08:45–9:30** Multiple superconducting phases and field-induced superconductivity under pressure in  $UTe_2$  - Dai Aoki - Tohoku University (Invited)

**09:30–10:15** - Quantum Monte Carlo simulations of superconductivity and magnetism in correlated systems - Rafael Fernandes - Univ. Minnesota (Invited).

**Parallel Session W2A – Unconventional Superconductivity – Wednesday 29, 10:45 – 12:30 - Chair: Yanina Fasano - (Centro Atómico Bariloche)**

**10:45–11:15:** Connecting two classes of unconventional superconductors: Pressure-tuning of  $CeFeAs$  - Michael Nicklas - Max Planck Institute for Chemical Physics of Solids – Dresden (Invited)

**11:15–11:30:** Decoupled nematic and magnetic criticality in  $FeSe_{1-x}S_x$  - Jake Ayres - University of Bristol (Oral)

**11:30–11:45:** Tunable  $0-\pi$  transitions and high harmonics of Josephson current for interorbital topological superconductivity in three-orbital noncentrosymmetric superconductors - Yuri Fukaya - Università di Salerno (Oral)

**11:45–12:00:** Quartic metal: spontaneous breaking of time-reversal symmetry due to four-fermion correlations - Vadim Grinenko - Institute for Solid State and Materials Physics, TU Dresden (Oral)

**12:00–12:15:** Electron pairing without superconductivity in the disordered superconductor titanium nitride - Milan Allan - Leiden University (Oral)

**12:15–12:30:** Multifractally-enhanced superconductivity in thin films - Igor Burmistrov - L. D. Landau Institute for Theoretical Physics (Oral).

**Parallel Session W2B – Materials Design and New/Advanced Materials – Wednesday 29, 10:45 – 12:30 - Chair: Ricardo Donizeth dos Reis**

**10:45–11:15:** Less is More: Vacancy-Triggered Robust Topological Nodal-Line Semimetals - Mariana Malard - Universidade de Brasília (Invited)

**11:15–11:30:** Frustrated magnet for adiabatic demagnetization cooling to milli-Kelvin temperatures - Yoshifumi Tokiwa - Japan Atomic Energy Institute (Oral)

**11:30–11:45:** Real-space observation of ferroelastically-designed Jahn-Teller domains in a  $\text{LaMnO}_3$  film - Yong-Jin Kim - Korea Advanced Institute of Science and Technology (Oral)

**11:45–12:00:** Retention of high-pressure-induced superconducting and non-superconducting phases in non-superconducting and high-temperature-superconducting solids at ambient - Ching-Wu Chu - University of Houston (Oral)

**12:00–12:15:** Charge Transfer and  $dd$  excitations in  $\text{AgF}_2$  - Nimrod Bachar - Ariel University (Oral)

**12:15–12:30:** New Lithium-based full Heusler superconductors - Tomasz Klimczuk - Gdansk University of Technology (Oral).

**Parallel Session W2C – Correlated topological phases – Wednesday 29, 10:45 – 12:30 - Chair: Marcos Sergio Figueira da Silva (Universidade Federal Fluminense)**

**10:45–11:00:** Pressure induced insulator-metal transition coupled with structural phase transition in  $\text{BiSbTe}_{1.25}\text{Se}_{1.75}$  topological insulator - Kannan Murugesan - Centre for high pressure research / Bharathidasan University, Thiruchirappalli (Oral)

**11:00–11:15:** Orbital origin of negative magnetoresistance and planar Hall effect in Weyl electron systems - Akiyoshi Yamada - University of Electro-Communications (Oral)

**11:15–11:30:** Tuning the Weyl semimetal  $\text{CeAlSi}$  by external pressure - Mario Moda Piva - Physics of Quantum Materials (PQM) / Max Planck Institute for Chemical Physics of Solids (Oral)

**11:30–11:45:** Direct observation of tunable magnetic domains in noncentrosymmetric ferromagnetic Weyl semimetal - Ilya Sochnikov - Physics / NA / University of Connecticut (Oral)

**11:45–12:00:** Spin and anomalous Hall effects emerging from topological degeneracy in Dirac fermion system  $\text{CuMnAs}$  - Thi Ngoc Huyen Vu - Center for Computational Materials Science / Institute for Materials Research / Tohoku University (Oral)

**12:00–12:15:** Weyl-Kondo semimetals: extreme topological tunability and nonlinear optical signatures - Sarah Greife - Los Alamos National Laboratory (Oral)

**12:15–12:30:** Controlling the charge ordering behaviour in  $\text{IrTe}_2$  with uniaxial strain - Chris Nicholson - Department of Physics / University of Fribourg (Oral)

**Parallel Session W3A – Unconventional Superconductivity – Wednesday 29, 14:00 – 15:00 - Chair: Alix McCollam (Radboud Univ.)**

**14:00–14:15:** New paradigm for superconductivity in a disordered vortex lattice - Amit Ghosal – IISER (Oral)

**14:15–14:30:** Electric field effects in ultrathin metallic superconductors - Maria Teresa Mercaldo - Università di Salerno (Oral)

**14:30–14:45:** The Three-Dimensional Electronic Structure of LiFeAs: Strong-coupling Superconductivity and Topology in the Iron Pnictides - Ryan Day - University of California, Berkeley (Oral)

**14:45–15:00:** Two gap time reversal symmetry breaking superconductivity in non-centrosymmetric LaNiC<sub>2</sub> - Shyam Sundar - Universidade Federal do Rio de Janeiro – (Oral)]

**Parallel Session W3B – Metal-insulator transitions – Wednesday 29, 14:00 – 15:00 - Chair: Makariy Tanatar (Iowa State University)**

**14:00–14:15:** Dielectric Catastrophe at the Mott Transition - Martin Dressel – Universität Stuttgart – (Oral)

**14:15–14:30:** Rise and Fall of Landau's Quasiparticles While Approaching the Mott Transition - Andrej Pustogow - TU Wien - (Oral)

**14:30–14:45:** Room temperature Mott metal-insulator transition in V<sub>2</sub>O<sub>3</sub> compounds - Mariela Menghini - KU Leuven - (Oral)

**14:45–15:00:** Non-thermal metallic phase emerging from nanoscale complexity in a photo-excited Mott material - Claudio Giannetti - Università Cattolica del Sacro Cuore – (Oral)

**Parallel Session W3C – Large research-facilities and Novel techniques for SCES investigations - Wednesday 29, 14:00 – 15:00 - Chair: Marcelo Jaime (LANL)**

**14:00–14:30:** X-rays on condensed matter physics at Sirius - Narcizo Marques Souza Neto - (CNPEM) Centro Nacional de Pesquisa em Energia e Materiais (Invited)

**14:30–14:45:** Selective orbital imaging of ground and excited states with x-ray spectroscopy - Andrea Amorese - Physics of Correlated Matter / Max Planck Institute for Chemical Physics of Solids (Oral)

**14:45–15:00:** New opportunities at the Advanced Photon Source: using intermediate-energy x-rays to investigate collective behavior in emergent materials - Fanny Rodolakis - X-ray Science Division / Advanced Photon Source / Argonne National Laboratory (Oral)

**Plenary Session - Poster Awards & Best Poster Express Presentation - Wednesday 29, 15:00 – 15:30 - Chair: Pascoal G. Pagliuso**

**Parallel Session W4A – Heavy fermion systems – Wednesday 29, 16:00 – 17:45 - Chair: Fabio Boschini (INRS)**

**16:00–16:30:** Mobile Majorana zero-modes in two-channel Kondo insulators - Rebecca Flint - Iowa State University (Invited)

**16:30–16:45:** Understanding the magnetism of  $\text{CeRh}_3\text{Si}_2$  through neutron and x-ray scattering - Debashibhai Adroja - ISIS Facility / Rutherford Appleton Laboratory (Oral)

**16:45–17:00:** Quantum Criticality of Kondo Lattice Model: A Renormalization Group Study via Quantum non-Linear Sigma Model - Yiming Wang - Rice University (Oral)

**17:00–17:15:** Investigation of the band structure and Fermi surface effects in the Sb-doped  $\text{CeCuBi}_2$  heavy fermion compounds studied by ARPES - Kevin Raduenz Pakuszewski - Universidade Estadual de Campinas (Oral)

**17:15–17:30:** Physical properties of the layered f-electron van der Waals magnet  $\text{Ce}_2\text{Te}_5$  - Yu Liu - MPA-Q / Los Alamos National Laboratory (Oral)

**17:30–17:45:** Topological crystalline superconductivity in locally noncentrosymmetric odd-parity superconductor  $\text{CeRh}_2\text{As}_2$  - Kosuke Nogaki - Department of Physics / Graduate School of Science / Kyoto University (Oral)

**Parallel Session W4B – Quantum Phase Transitions and Quantum Magnetism – Wednesday 29, 16:00 – 17:45 - Chair: Eric Andrade (Universidade de São Paulo)**

**16:00–16:30:** Deconfinement and glassy behavior of  $U(1)$  quantum spin liquids - SungBin Lee - Korea Advanced Institute of Science and Technology (Invited)

**16:30–16:45:** Field-Induced Quantum Spin Nematic Liquid Phase in the  $S=1$  Antiferromagnetic Heisenberg Chain with Additional Interactions - Toru Sakai – University of Hyogo (Oral)

**16:45–17:00:** Hedgehog-lattice spin texture in breathing-pyrochlore antiferromagnets - Kazushi Aoyama - Osaka University (Oral)

**17:00–17:15:** Spin texture induced by nonmagnetic doping and spin dynamics in 2D triangular lattice antiferromagnet  $\text{h-Y}(\text{Mn,Al})\text{O}_3$  - Pyeongjae Park- Seoul National University (Oral).

**17:15–17:45:** Electrical manipulation of the antiferromagnetic Weyl semimetal state in  $\text{Mn}_3\text{Sn}$  - Satoru Nakatsuji - Department of Physics / University of Tokyo / University of Tokyo (Invited)

**Parallel Session W4C – Strong correlations in actinides – Wednesday 29, 16:00 – 17:45**  
– Chair: Daniel Braithwaite (Université Grenoble Alpes)

**16:00–16:30:** Proximity to a critical point driven by electronic entropy in  $\text{URu}_2\text{Si}_2$  - Marcelo Jaime - Los Alamos National Laboratory (Invited)

**16:30–16:45:**  $\text{URu}_2\text{Si}_2$ : recent findings by resonant X-ray diffraction - Guillaume Beutier – Univ. Grenoble Alpes (Oral)

**16:45–17:00** Magnetic entropy of  $\text{UTe}_2$  - Petr Opletal - Japan Atomic Energy Agency (Oral)

**17:00–17:15:** Alloying driven transition between ferro- and antiferromagnetism in UTGe compounds: the  $\text{UCo}_{1-x}\text{Ir}_x\text{Ge}$  case - Dávid Hovančík- Charles University (Oral).

**17:15–17:30:** Tuning of the two successive phase transitions with pressure in  $\text{URhSn}$  - Arvind Maurya - Tohoku University (Oral).

**17:30–17:45:** Hall effect near the metamagnetic high-field transition in Uranium Mononitride - Toni Helm - Helmholtz-Zentrum Dresden-Rossendorf (Oral).

**Plenary Session Th1A – Thursday 30, 08:45 – 10:15 - Chair: Dai Aoki (Tohoku University)**

**08:45–9:30** Nigel Hussey - Dual character of the cuprate strange metal - University of Bristol / H. H. Wills Physics Laboratory (Invited)

**09:30–10:15** Meigan Aronson - Quantum Criticality and the Stability of Magnetic Order - UBC (Invited)

**Parallel Session Th2A – Unconventional Superconductivity – Thursday 30, 10:45 – 12:30 - Chair: Stephen Rowley (University of Cambridge)**

**10:45–11:15:** Field-induced transition within the superconducting state of  $\text{CeRh}_2\text{As}_2$  - Elena Hassinger - Max-Planck Institute for Chemical Physics of Solids - Dresden (Invited)

**11:15–11:45:** Twisted Superconductivity in the high magnetic field phase of  $\text{CeRh}_2\text{As}_2$  - Aline Ramires - Paul Scherrer Institute (Invited)

**11:45–12:00:** - Superconductivity from Holes in  $\text{CeCu}_2\text{Si}_2$  - Tanmoy Dasn - Indian Institute of Science (Oral).

**12:00–12:15:** Angular dependence of superconductivity in  $\text{CeRh}_2\text{As}_2$  - Javier Landaeta - Ural Federal University (Oral) - Max-Planck Institute for Chemical Physics of Solids - Dresden (Invited)

**12:15–12:30:** Unconventional Pairing from Local Orbital Fluctuations in Strongly Correlated  $\text{A}_3\text{C}_60$  - Changming Yue - University of Fribourg (Oral)

**Parallel Session Th2B – Theoretical methods for strong correlations – Thursday 30, 10:45 – 12:30 – Chair: Peter Riseborough (Temple University)**

**10:45–11:15:** Semi-analytical theories for a correlated quantum dot attached to superconducting leads - Tomáš Novotný - Charles University in Prague (Invited)

**11:15–11:30:** Spectral properties of strongly correlated multi-impurity models in the Kondo insulator regime: Emergent coherence, metallic surface states and quantum phase transitions - Frithjof Anders - TU Dortmund University (Oral)

**11:30–11:45:** Diagrammatic Monte-Carlo approach to many-flavour unitary fermions - Gunnar Moller - University of Kent (Oral)

**11:45–12:00:** - The cumulant Green's functions method for the Hubbard model - Marcos Sergio Figueira Silva - Universidade Federal Fluminense (Oral)

**12:00–12:15:** Electron coherence effects in the coherent state picture for electron-phonon interactions - Alhun Aydin - Harvard University (Oral)

**12:15–12:30:** Spin-momentum locking and fractionally charged topological quasi-particles – Mauro Doria - Universidade Federal do Rio de Janeiro (Oral)

**Parallel Session Th2C – CEF effects and multipolar ordering in SCES I – Thursday 30, 10:45 – 12:30 - Chair: Ricardo Urbano (UNICAMP)**

**10:45–11:15:** Dual nature of 5f electrons in the isostructural  $UM_2Si_2$  family: from antiferro- to Pauli paramagnetism via hidden order - Andrea Severing - University of Cologne (Invited)

**11:15–11:45:** Anisotropic nematic fluctuations above the ferroquadrupolar transition in  $TmVO_4$  - Nicholas Curro - University of California at Davis (Invited)

**11:45–12:00:** Signature of CEF-phonon coupling in Kondo lattice system  $CeCuGa_3$  - Vivek Kumar Anand - University of Petroleum and Energy Studies (Oral).

**12:00–12:15:** AC elastocaloric investigation of the antiferroquadrupolar order in  $DyB_2C_2$  - Linda Ye - Stanford University (Oral)

**12:15–12:30:** - Field-angle-resolved magnetic excitations in  $CeB_6$  - Dmytro Inosov - Technische Universität Dresden (Oral)

**Parallel Session Th3A – Unconventional Superconductivity – Thursday 30, 14:00 – 15:00 – Chair: Elena Hassinger (Max-Planck Institute for Chemical Physics of Solids).**

**14:00–14:15:** Using uniaxial stress to probe the relationship between competing superconducting states in a cuprate with spin-stripe order - Zurab Guguchia - L. D. Landau Institute for Theoretical Physics (Oral).

**14:15 –14:30:** Manipulation of time reversal symmetry breaking superconductivity in  $\text{Sr}_2\text{RuO}_4$  by uniaxial stress - Shreenanda Ghosh - TU Dresden (Oral)

**14:30 –14:45:** High-Tc Superconductivity in Iron Selenide by Proximity to Hidden Spin Density Wave - Jose Rodriguez - California State University at Los Angeles (Oral)

**14:45 –15:00:** Destruction of a sign-changing order parameter by artificial atomic defects in multiband superconductor  $\text{PrOs}_4\text{Sb}_{12}$  - Tomasz Cichorek - Polish Academy of Sciences (Oral)

**Parallel Session Th3B – Non-equilibrium phenomena in strongly correlated systems II – Thursday 30, 14:00 – 15:00 – Chair: Pascale Diener (Lille University)**

**14:00–14:30:** Memory and rejuvenation effect on the cluster-glass phase of 1-D spin-chain compound  $\text{Ca}_3\text{Co}_{2-x}\text{Bi}_x\text{O}_6$  - Gajendra Singh Bisht - Indian Institute of Technology Guwahati (Invited).

**14:30 –14:45:** Coherent, time-correlated tunneling of density wave electrons - John Miller - University of Houston (Oral)

**14:45 –15:00:** Antiphase oscillations in the time-resolved spin structure factor of photoexcited two-dimensional Mott Insulator - Takami Tohyama - Tokyo University of Science (Oral)

**Parallel Session Th3C – CEF effects and multipolar ordering in SCES II – Thursday 30, 14:00 – 15:00 - Chair: Nicholas Curro (UC Davis)**

**14:00–14:15:** Charge and crystal field electronic states in  $\text{CeRh}_2\text{X}_2$  (X=Si and As) and  $\text{Ba}_2\text{IrO}_4$  - Ryszard Radwanski - Pedagogical University (Oral).

**14:15–14:30:** Structural and spectroscopic investigation of the charge-ordered, short-range ordered, and disordered phases of the  $\text{Co}_3\text{O}_2\text{BO}_3$  ludwigite - Carlos Galdino - Universidade Estadual de Campinas (Oral)

**14:30–14:45:** Magnetic properties of  $\text{Ni}_5\text{Sn}(\text{O}_2\text{BO}_3)_2$  ludwigite - Cynthia Paola Contreras Medrano - Centro Brasileiro de Pesquisas Físicas (Oral)

**14:45–15:00:** Crystal-field excitations and quadrupolar fluctuations of 4f-electron systems studied by polarized light scattering - Mai Ye - Rutgers University (Oral)

**Plenary Session - Poster Awards & Best Poster Express Presentation - Thursday 30, 15:00 – 15:30 - Chair: Eduardo Miranda**

**Parallel Session Th4A – Kondo effect and valence fluctuations II – Thursday 30, 16:00 – 17:45 - Chair: Ernst Bauer (TU Wien)**

**16:00–16:30:** Floquet engineering multi-channel Kondo systems - Victor Quito - Iowa State University (Invited)

**16:30–16:45:** Quantitative investigation of the Kondo interaction in the quasikagome lattice  $\text{CeRh}_{1-x}\text{Pd}_x\text{Sn}$  - Martin Sundermann - Max Planck Institute for Chemical Physics of Solids (Oral)

**16:45–17:00:** The competition of Majorana and Kondo physics in the heat and charge transport through a double quantum dot system - Piotr Majek - Adam Mickiewicz University in Poznan (Oral)

**17:00–17:15:** The pseudogap in hole-doped cuprates: possible insights from the Kondo effect - John Cooper - University of Cambridge (Oral)

**17:15–17:30:** A crossover from Kondo semiconductor to metallic antiferromagnet with 5d-electron doping in  $\text{CeFe}_2\text{Al}_{10}$  – Rajesh Tripathi – Jawaharlal Nehru Centre for Advanced Scientific Research (Oral)

**17:30–17:45:** A crossover from Kondo semiconductor to metallic antiferromagnet with 5d-electron doping in  $\text{CeFe}_2\text{Al}_{10}$  - Rajesh Tripathi - Jawaharlal Nehru Centre for Advanced Scientific Research (Oral)

**17:45–18:15:** - TBA - Rosa Lopez - (UIB) (Invited)

**Parallel Session Th4B – Quantum Phase Transitions and Quantum Magnetism – Thursday 30, 16:00 – 17:45 - Chair - Sergey Bud'ko (Ames Laboratory)**

**16:00–16:30:** Magnetism at high pressures: search for quantum spin liquids in 5d oxides - Daniel Haskel - Argonne National Laboratory (Invited)

**16:30–16:45:** Thermal fluctuations induced scalar spin chirality in spin-trimer ferromagnet probed by Hall and Nernst effects - Kamil Kolincio - Gdansk University of Technology (Oral)

**16:45–17:00:** Incommensurate quantum magnetism and multiple-q magnetic order in synthetic antlerite,  $\text{Cu}_3\text{SO}_4(\text{OH})_4$  - Darren Peets - Technische Universität Dresden (Oral)

**17:00–17:15:** Investigation of the magnetic high-field state of the frustrated quantum sawtooth chain material atacamite,  $\text{Cu}_2\text{Cl}(\text{OH})_3$  - Leonie Heinze - TU Braunschweig (Oral)

**17:15–17:30:** Unusual antiferromagnetism and field-induced transitions in tetragonal  $\text{CeLiBi}_2$  - Mitchell Bordelon - Los Alamos National Laboratory (Oral)

**17:30–18:00:** Time reversal and lattice symmetry breaking in  $\text{Nd}_2\text{Ir}_2\text{O}_7$  observed by Raman scattering spectroscopy - Natalia Drichko - Johns Hopkins Univ. (Invited)



**Parallel Session Th4C – Emergent phenomena at nanoscale – Thursday 30, 16:00 – 17:45 - Chair: Ricardo Donizeth dos Reis**

**16:00–16:30:** Magnetic polarons in  $\text{EuB}_6$  – Quantum nematic and spin fluctuations - Andrea Bianchi - Université de Montréal (Invited)

**16:30–16:45:** Observing separate spin and charge Fermi seas in a strongly correlated one-dimensional conductor - Pedro Vianez - University of Cambridge (Oral)

**16:45–17:00:** Evidence of the dominant role of charge order in cuprate high critical temperature superconductors - Riccardo Arpaia - Chalmers University of Technology (Oral)

**17:00–17:15:** High Conductance and Full Spin Polarized Current Transistor - Enrique V. Anda - PUC-Rio (Oral)

**17:15–17:30:** Numerical study on the transport phenomena in the antiferromagnetic skyrmion system - Akira Matsui - University of Tokyo (Oral)

**17:30–17:45:** Nanoscale turing patterns in a bismuth monolayer - Yuki Fuseya - University of Electro-Communications (Oral)

**17:45–18:15:** Coupled Cu and Mn charge and orbital orders in cuprate/manganite multilayers - Claude Monney - UNIFR (Invited)

**Plenary Session F1A – Friday 01, 08:45 – 10:15 - Chair - Thereza Paiva (UFRJ)**

**08:45–9:30:** Broken up, condensed, and knotted: The gym of heavy fermions - Silke Paschen - TU Wien - (Invited)

**09:30–10:15:** Heavy Fermion Perspectives on Quantum Materials - Piers Coleman - Rutgers Univ. - (Invited)

**Parallel Session F2A – Unconventional Superconductivity – Friday 01, 10:45 – 12:30 - Chair: Aline Ramires (Paul Scherrer Institute)**

**10:45–11:15:** Superconductivity mediated by polar modes in doped ferroelectrics - Stephen Rowley - University of Cambridge (Invited)

**11:15–11:30:** Shear modulus anomaly of multi-component superconductor: the case of  $\text{M}_x\text{Bi}_2\text{Se}_3$  - Pye Ton How - Institute of Physics / Academia Sinica (Oral)

**11:30 –11:45:** Coexistence of Superconducting and Charge orders in  $\text{IrTe}_2$  nanoflakes - Sungyu Park - Institute for Basic Science (Oral)

**11:45 –12:00:** Spin susceptibility for orbital-singlet Cooper pair in three-dimensional  $\text{Sr}_2\text{RuO}_4$  superconductor - Yukio Tanaka - Nagoya University (Oral)

**12:00–12:15:** Distorted superconducting nodal line on single Fermi surface in anisotropic organic superconductor  $\lambda$ -BETS<sub>2</sub>GaCl<sub>4</sub> - Dita Puspita Sari - Shibaura Institute of Technology (Oral)

**12:15–12:30:** Key role of incoherent carriers for superconductivity in overdoped cuprates - Matija Culo - Institute of Physics, Zagreb, Croatia

**Parallel Session F2B – Heavy Fermion Systems – Friday 01, 10:45 – 12:30 - Chair: Andrea Bianchi - (University of Montreal)**

**10:45–11:15:** Tuning low-energy scales in YbRh<sub>2</sub>Si<sub>2</sub> by non-isoelectronic substitution and pressure - Philipp Gegenwart - Experimental Physics VI / Center for Electronic Correlations and Magnetism / University of Augsburg (Oral)

**11:15–11:30:** Signature of momentum dependent hybridization in ARPES spectra of CeCoIn<sub>5</sub> - Pawel Starowicz - Jagiellonian University (Oral)

**11:30–11:45:** Exploring the coexistence of antiferromagnetic ordering and superconducting in Ce<sub>3</sub>PtIn<sub>11</sub> - Jeroen Custers - Department of Condensed Matter Physics / Faculty of Mathematics and Physics / Charles University (Oral)

**11:45–12:00:** Correlation between superconductivity and Fermi-liquid transport within the Fermi-liquid regime of quantum-critical heavy-Fermion superconductors - Mohammed Elmassalami - Universidade Federal do Rio de Janeiro (Oral)

**12:00–12:15:** From Quantum Entanglement to Dynamical Charge Scaling at a Kondo Destruction Quantum Critical Point - Haoyu Hu - Rice University (Oral)

**12:15–12:30:** Resolving the nature of magnetic field-induced quantum critical point and the origin of the novel electronic-nematic transition in CeRhIn<sub>5</sub> - Sanu Mishra - Laboratoire National des Champs Magnétiques Intenses (LNCMI-EMFL), CNRS (Oral)

**Parallel Session F2C – Correlated topological phases – Friday 01, 10:45 – 12:30 - Chair: Paula Mellado (Universidad Adolfo Ibáñez)**

**10:45–11:00:** From Kondo insulator to Weyl-Kondo semimetal: Study of the substitution series Ce<sub>3</sub>Bi<sub>4</sub>(Pd,Pt)<sub>3</sub> - Mathieu Taupin - Institute of Solid State Physics / Technical university of Vienna (Oral)

**11:00–11:15:** Weyl-Kondo semimetal Ce<sub>3</sub>Bi<sub>4</sub>Pd<sub>3</sub>: Chemical pressure effects near the ideal stoichiometry - Gaku Eguchi - MPA-Q / Los Alamos National Laboratory (Oral)

**11:15–11:30:** Ground state of Ce<sub>3</sub>Bi<sub>4</sub>Pd<sub>3</sub> unraveled by hydrostatic pressure - Mukkattu Omanakuttan Ajeesh - MPA-Q / Los Alamos National Laboratory (Oral)

**11:30-11:45:** Flat-band ferromagnetism and spin waves in the Haldane-Hubbard model - Leonardo da Silva Garcia Leite - Universidade Estadual de Campinas - Instituto de Física "Gleb Wataghin" (Oral)

**11:45-12:00:** Multi-particle scattering and breakdown of the Wiedemann-Franz law at a junction of N interacting quantum wires - Domenico Giuliano - Dipartimento di Fisica / Università della Calabria / Università della Calabria (Oral)

**12:00-12:15:** Topological Semimetal driven by Strong Correlations and Crystalline Symmetry - Lei Chen - Rice University (Oral)

**12:15-12:30:** Chern insulators realized in two-dimensional metal organic framework kagome lattice - Jaejun Yu - Physics and Astronomy / Center for Theoretical Physics / Seoul National University (Oral)

**Parallel Session F3A – Multiferroics and related Materials – Friday 01, 14:00 – 15:15 - Chair: Pascoal G. Pagliuso**

**14:00–14:15:** Magnetoelectric Effect in Dipolar Clusters - Paula Mellado - Universidad Adolfo Ibáñez (Oral).

**14:15 –14:30:** Quadratic optical responses in a chiral magnetic metal - Shun Okumura - University of Tokyo (Oral)

**14:30 –14:45:** Phase degree of freedom and topological properties of multiple-Q spin textures - Kotaro Shimizu - University of Tokyo (Oral)

**14:45 –15:00:** Anomalous Ca-content dependence of dielectric property of charge ordered  $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$  as a signature of charge-ordered phase modulation - Partha Sarathi Mondal - National Institute of Foundry and Forge Technology (Oral)

**15:00 –15:30:** Direct observation of Jahn-Teller critical dynamics at a charge-order Verwey transition - Vinícius Pascotto Gastaldo - Universidade Federal de Mato Grosso do Sul (Oral)

**Parallel Session F3B – Quantum Phase Transitions – Friday 01, 14:00 – 15:15 - Chair: Qimiao Si (Rice University)**

**14:00–14:30:** Quantum supreme matter and the strange metals - Jan Zaanen - Leiden University (Invited).

**14:30–14:45:** Dynamical charge density fluctuations, isotropic scattering and anomalous metallic behaviour - Carlo Di Castro - Università di Roma Sapienza (Oral)

**14:45–15:00:** The Hall response of the Planckian sector in nematic  $\text{FeSe}_{1-x}\text{S}_x$  - Matija Culo - Radboud University (Oral)

**15:00–15:15:** Exploring the ferromagnetism of  $\text{Fe}(\text{Ga}_{1-x}\text{Ge}_x)_3$  near quantum criticality - Bryan Vlaar - Radboud University (Oral)

**Parallel Session F3C – Quantum Magnetism – Friday 01, 14:00 – 15:15 - Chair: Mucio Continentino (CBPF)**

**14:00–14:30:** Gapless excitations in field-induced Kitaev spin liquids with line defects - Rodrigo Pereira - Universidade Federal do Rio Grande do Norte (Invited)

**14:30–15:00:** Heisenberg-Kitaev model in a magnetic field:  $1/S$  expansion - Eric Andrade - Universidade de São Paulo (Invited)

**15:00–15:15:** Ground-state phase diagrams of the anisotropically interacting Kitaev- $\Gamma$ -Heisenberg models on honeycomb lattices - Sei-ichiro Suga - University of Hyogo (Oral)

**Parallel Session F4A – Unconventional Superconductivity – Friday 01, 16:00 – 17:45 - Chair: Piers Coleman (Rutgers Univ.)**

**16:00 –16:30:** Universal bound to the amplitude of the vortex Nernst signal in superconductors, Kamran Behnia - ESPCI - (Invited)

**16:30 –17:00** Plasma waves in layered superconductors - Lara Benfatto - Department of Physics / Sapienza University of Rome

**17:00 –17:15:** Effect of Artificial Disorder on Superconductivity and Charge Density Wave Ordering in  $(\text{Ca}, \text{Sr})_3(\text{Rh}, \text{Ir})_4\text{Sn}_{13}$  Superconductors - Elizabeth Krenkel - Ames Lab (Oral)

**17:15 –17:30:** Superconductivity enhancement and quantum critical point of chiral structure induced by atomic substitutions in  $\text{La}_3\text{T}_4\text{Sn}_{13}$  ( $\text{T} = \text{Co}$  and  $\text{Rh}$ ) - Kazuaki Iwasa - Ibaraki University (Oral).

**17:30 –17:45:** The maximal superconductivity in proximity to the charge density wave quantum critical point in  $\text{Cu}_x\text{TiSe}_2$  - Tae-Ho Park - SungKyunKwan University - (Oral).

**Parallel Session F4B – Heavy fermion systems and Correlated topological phases – Friday 01, 16:00 – 17:45 - Chair: Sergio Magalhaes (UFRGS)**

**16:00–16:15:** The Phase Diagram of Kitaev Materials under Arbitrary Magnetic Field - Firat Yilmaz - Center for Electronic Correlations and Magnetism/Institute of Physics / Augsburg University (Oral)

**16:15–16:30:** Terahertz conductivity of heavy fermion systems from time-resolved spectroscopy - Chia-Jung Yang - Department of Materials/ETH Zurich (Swiss Federal Institute of Technology in Zürich) (Oral)

**16:30–16:45:** Dynamical quantum phase transitions in a chiral p-wave superconductor upon chemical potential quenches - Yuto Shibata - Paul Scherrer Institut, ETH Zürich (Oral)

**16:45–17:00:** Electronic structure of a semimetal NdSb across the magnetic transition - Anup Pradhan Sakhya - Department of Physics, University of Central Florida (Oral)

**17:00–17:15:** Fractionalization of Spin in Cluster-Based Haldane State of Triangular Spin Tube - Takanori Sugimoto - Tokyo University of Science (Oral).

**17:15–17:30:** T-breaking density wave order in topological kagome metals - Chandan Setty - Physics/Rice center for quantum materials/Rice University (Oral)

**17:30–17:45:** Effect of renormalization and non-Hermiticity on nonlinear response in strongly-correlated electron systems - Yoshihiro Michishita - Division of Physics and Astronomy/Graduate School of Science/Kyoto University (Oral)

**Parallel Session F4C – Quantum Phase Transitions and Quantum Magnetism – Friday 01, 16:00 – 17:45 - Chair: Magda Bittencourt Fontes**

**16:00–16:30:** Quantum criticality and spatial symmetry in interacting Dirac electrons under magnetic fields - Yasuhiro Tada - Hiroshima University (Invited)

**16:30–17:00:** Quantum annealed criticality: A scaling description – Mucio Continentino – Centro Brasileiro de Pesquisas Físicas (Invited)

**17:00–17:15:** Effect of spin-S impurities with XXZ anisotropy in the spin-1/2 Heisenberg chain - Masahiro Kadosawa - Chiba University (Oral)

**17:15–17:30:** Probing band structures and Fermi surfaces of CeCoSi by ARPES - Akio Kimura - Hiroshima University (Oral)

**17:30–17:45:** Quantum phase transitions in an Yb-based semiconductor YbCuS<sub>2</sub> with an effective spin-1/2 zigzag chain - Takahiro Onimaru - Hiroshima University (Oral)

**Session F5A – Friday 01, 17:45 – 18:15 – Closing and Future Conferences – Pascoal Pagliuso (IFGW/Unicamp) – Anne de Visser (University of Amsterdam) – Alix McCollam (HFML – Radboud Univ.).**