

Program

17 January 2022, from 8h00 to 13h30 CET

China (CST): 15h00 to 17h30, break, 18h30 to 20h30.

Japan (JST): 16h00 to 18h30, break, 19h30 to 21h30.

<https://us02web.zoom.us/j/84129952813?pwd=a2tzbnl3ZDYxMG1vTTQ1RXd3UIBqdzo9>

Meeting ID: 841 2995 2813

Access code: 881108

07h50-08h00: **Organizers**, opening.

Tutorial. Chair: Jeroen Custers.

08h00-08h40: **Yang Liu**, Center for Correlated Matter, Zhejiang, China. “Uncovering the peculiar 4f electrons in heavy fermions”.

Session 1: Spectroscopy on correlated materials. Chair: Huiqiu Yuan.

08h40-09h00: **Haichao Xu** - Fudan University, Shanghai “Distinct Kondo screening behaviors in heavy fermion filled skutterudites with 4f₁ and 4f₂ configurations”.

09h00-09h20: **Rafal Kurlito** - University of Colorado, Boulder “Photoemission signature of momentum-dependent hybridization in CeCoIn₅”.

09h20-09h40: **Georg Poelchen** - ESRF, Grenoble, “Unveiling novel temperature scales at the surfaces of Ce-based heavy-fermion materials via ARPES measurement”

09h40-10h00: **Lin Miao** – Southeast University, Nanjing. “The ARPES study on spin-triplet superconductor candidate UTe₂”.

10h00-10h20: **Petr Doležal** – Charles University, Prague “Lattice dynamics in CePd₂Al₂ and LaPd₂Al₂”.

10h20-10h40: **Wu Xie** - Center for Correlated Matter and Department of Physics, Zhejiang University, Hangzhou “Incommensurate noncolinear magnetic structures in EuPtAs”.

10h40-11h30 BREAK

Session 2: Unconventional Superconductivity. Chair: Jean Pascal Brison.

11h30-11h50: **Adrien Gourgout**– ESPCI, Paris. “Fermi surface transformation across the pseudogap critical point in the cuprate Nd-LSCO from thermoelectric measurements”

11h50-12h10: **Siyuan Wan**– Nanjing University, Nanjing, “Incommensurate antiferromagnetic order in Fe-doped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ ”.

12h10-12h30: **Tomoya Asaba**– Kyoto University, Kyoto. “Exotic heavy fermion superconductivity in atomically thin CeCoIn_5 films”

12h30-12h50: **Mathieu Taupin**– TU Vienna, Vienna. “ YbRh_2Si_2 : Unconventional superconductivity and strange metal behavior”.

12h50-13h10: **Jiasheng Chen**– Cavendish Lab. Univ. of Cambridge, Cambridge, country. “Superconductivity and Electronic Structure of YFe_2Ge_2 .”

13h10-13h30: **Jeremy Sourd** - University of Bordeaux, LOMA UMR-CNRS “Pocket selective doping of cerium in iron based superconductors”.

18 January 2022, from 8h00 to 13h50 CET

China (CST): 15h00 to 17h30, break, 18h30 to 20h50.

Japan (JST): 16h00 to 18h30, break, 19h30 to 21h50.

<https://uso2web.zoom.us/j/82480471136?pwd=TzJwd2xkbG15dFljNWdqdmRTazNjdzo9>

Meeting ID: 824 8047 1136

Access code: 738993

Tutorial. Chair: Anne de Visser.

08h00-08h40: **Maia Vergniory**, Donostia International Physics Center, Donostia, Spain. “Title”

Session 3: Topological States of Matter. Chair: Anne de Visser.

08h40-09h00: **Rongyan Chen** - Beijing Normal University, Beijing, “Optical study on LnSbTe (Ln= La, Ce, Sm, Gd, Ho) compounds”.

09h00-09h20: **Javier Landaeta**– MPI-CPfS Dresden, Dresden. “Field-angle dependence reveals odd-parity superconductivity in CeRh₂As₂”.

09h20-09h40: **Seunghyun Khim** – MPI-CPfS Dresden, Dresden. “Muon spin relaxation studies on unconventional superconductor CeRh₂As₂”.

09h40-10h00: **Kosuke Nogaki**– Kyoto University, Kyoto. “Topological crystalline superconductivity and electronic band structure of CeRh₂As₂”.

10h00-10h20: **Pablo Garcia Campos**– Neel Institut-CNRS/UGA, Grenoble. “Chiral superconductivity in UPt₃”.

10h20-10h40: **Rubén Seoane Souto** – Center for Quantum Devices, Niels Bohr Institute, University of Copenhagen “Magnetism and spin-polarized bound states in semiconductor-superconductor-ferromagnetic platforms”.

10h40-11h30 BREAK

Session 4: Quantum Criticality and Novel Quantum States. Chair: Huiqiu Yuan.

11h30-11h50: **Bin Shen**– Univ. of Augsburg, Augsburg. “Ferromagnetic quantum criticality and strange metal behaviours in the pure Kondo lattice CeRh_6Ge_4 ”.

11h50-12h10: **Jiangfan Wang**– Beijing Nat. Lab. for Condensed Matter Physics, Institute of Physics, Chinese Academy of Science, Beijing. “Nonlocal Kondo effect and quantum critical phase in heavy-fermion metals”.

12h10-12h30: **Ziji Xiang**– Hefei Nat. Lab. for Physical Sciences at Microscale, Hefei, “Quantum Oscillations and Unconventional Charge Transport in Kondo Insulator YbB_{12} ”

12h30-12h50: **Jake Ayres**– Univ. of Bristol, Bristol, “bad metal in Tl_2ZnO and lack of QCP”

12h50-13h10: **Yunhe Pei** - University of Electronic Science and Technology of China, Chengdu “Unraveling the Hybridization Process in CeRh_6Ge_4 by Ultrafast Optical Spectroscopy”.

13h10-13h30: **Edwin Herrera**– Universidad Autónoma de Madrid, Madrid. “Two Dimensional heavy electrons in the hidden order state of URu_2Si_2 ”.

13h30-13h50: **Masahiro Naritsuka**– St Andrews. “Interplay of ferromagnetism and spin-orbit coupling in metamagnetic $\text{Sr}_4\text{Ru}_3\text{O}_{10}$ ”.

19 January 2022, from 8h00 to 13h30 CET

China (CST): 15h00 to 17h30, break, 18h30 to 20h30.

Japan (JST): 16h00 to 18h30, break, 19h30 to 21h30.

<https://us02web.zoom.us/j/88161537774?pwd=QkRQcGxBdkkyRoinbHorZHRqUHMzUTog>

Meeting ID: 881 6153 7774

Access code: 091721

Tutorial. Chair Dai Aoki.

08h00-08h40: **Youichi Yanase**, Department of Physics, Kyoto University, Kyoto. “Symmetry and topology in heavy fermion superconductors”.

Session 5: Spin-triplet Superconductors. Chair Dai Aoki.

08h40-09h00: **Kota Ishihara**– University of Tokyo, Kashiwa, “Chiral spin-triplet superconductivity in UTe_2 probed by anisotropic low-energy excitations”.

09h00-09h20: **Michal Valiska**– Charles Univ., Prague. “Magnetic reshuffling and feedback on superconductivity in UTe_2 under pressure”.

09h20-09h40: **Adrien Rosuel** – Univ. Grenoble Alpes, Grenoble. “Upper critical field of the spin triplet superconductor UTe_2 by specific heat measurements”.

09h40-10h00: **Lin Jiao**– National High Magnetic Field Laboratory and Florida State University, Tallahassee, “Chiral superconductivity in heavy fermion metal UTe_2 ”.

10h00-10h20: **Kristin Willa** –KIT Karlsruhe, “Short ranged magnetic correlations investigated by thermal expansion and specific heat in UTe_2 ”.

10h20-10h40: **Callum Stevens** – University of Edinburgh, Scotland “Magnetic fluctuations and superconductivity in UTe_2 ”.

10h40-11h30 BREAK

Session 6: Novel states and band structure features in superconducting correlated matter. Chair: Hermann Suderow.

11h30-11h50: **Carolina Marques**– SUPA, Univ. of St Andrews, St Andrews. “The surface of Sr_2RuO_4 : From unconventional orders to a magnetic-field tuned van Hove singularity”.

11h50-12h10: **Roos Leenen**– HFML, Nijmegen. “The Fermi surface of the ferromagnetic superconductor UCoGe under external magnetic fields”.

12h10-12h30: **Beilun Wu**– Universidad Autónoma de Madrid, Madrid. “Scanning tunneling spectroscopy at magnetic fields of 20T in superconducting KFe_2As_2 ”.

12h30-12h50: **Jose Lado**– Aalto University, Espoo. “Artificial heavy fermions in a dichalcogenide van der Waals heterostructure”.

12h50-13h10: **Huan Yang** - Nanjing University, Nanjing, “Twofold symmetry of c-axis resistivity in kagome superconductor CsV_3Sb_5 with in-plane rotating magnetic field”.

13h10-13h30: **Feng Du**– Zhejiang University, Hangzhou. “Interplay between charge order and superconductivity in the Kagome metals AV_3Sb_5 (A= K, Rb)”.

13h30-13h40: **Organizers**, closure