

27 February 2023

PST: 07h50 to 10h30, break, 11h30 to 13h30.

EST: 10h50 to 13h30, break, 14h30 to 16h30.

BRT: 12h50 to 15h30, break, 16h30 to 18h30.

CET: 16h50 to 19h30, break, 20h30 to 22h30.

<https://uso2web.zoom.us/j/88305992439?pwd=WFcoQkhrTCs4Vl5ZmJQY24wTDF6UT09>

Meeting ID: 883 0599 2439

Access code: 690717

| PST | EST | BRT | CET | Monday 27 February |
|----------------------|----------------------|----------------------|----------------------|---|
| 7h50 – 8h00 | 10h50 – 11h00 | 12h50 – 13h00 | 16h50 – 17h00 | Opening – organizers |
| 8h00 – 8h40 | 11h00 – 11h40 | 13h00 – 13h40 | 17h00 – 17h40 | Tutorial 1, Rodrigo Pereira, Strongly correlated topological phases of matter |
| | | | | Session 1: Correlated topological matter, Chairperson: Jeroen Custers |
| 8h40 – 9h00 | 11h40 – 12h00 | 13h40 – 14h00 | 17h40 – 18h00 | Chandan Setty, Topological semimetal driven by strong correlations and crystalline symmetry |
| 9h00 – 9h20 | 12h00 – 12h20 | 14h00 – 14h20 | 18h00 – 18h20 | Diego Zocco, Tuning electronic topology in the Weyl-Kondo semimetal $Ce_2Bi_4Pd_3$ |
| 9h20 – 9h40 | 12h20 – 12h40 | 14h20 – 14h40 | 18h20 – 18h40 | María Victoria Ale Crivillero, Tuning the topological character of half-Heusler systems YTBi ($T = Pd, Pt$) |
| 9h40 – 10h00 | 12h40 – 13h00 | 14h40 – 15h00 | 18h40 – 19h00 | Mario Piva, The role of domain walls in the topological features of $CeAlSi$ |
| 10h00 – 10h20 | 13h00 – 13h20 | 15h00 – 15h20 | 19h00 – 19h20 | Yuhang Deng, $FeSi$: a d-electron topological Kondo insulator? |
| 10h20 – 10h35 | 13h20 – 13h35 | 15h15 – 15h35 | 19h20 – 19h35 | Diana Kirschbaum, Pressure tuning of the Weyl-Kondo semimetal candidate $CeRu_4Sn_6$ |
| 10h35 – 11h30 | 13h35 – 14h30 | 15h35 – 16h30 | 19h35 – 20h30 | Break |
| | | | | Session 2: Novelties on UTe_2, Chairperson: Jean-Pascal Brison |
| 11h30 – 11h50 | 14h30 – 14h50 | 16h30 – 16h50 | 20h30 – 20h50 | Anuva Aishwarya, Visualizing an unconventional charge density wave order in the spin-triplet superconductor UTe_2 |
| 11h50 – 12h10 | 14h50 – 15h10 | 16h50 – 17h10 | 20h50 – 21h10 | Tristan Thebault, Anisotropic signatures of the electronic correlations in the electrical resistivity of UTe_2 |
| 12h10 – 12h30 | 15h10 – 15h30 | 17h10 – 17h30 | 21h10 – 21h30 | Nasrin Azari, Ubiquitous spin freezing in the superconducting state of UTe_2 |
| 12h30 – 12h50 | 15h30 – 15h50 | 17h30 – 17h50 | 21h30 – 21h50 | Alexander Eaton, Quasi-2D Fermi surface in the anomalous superconductor UTe_2 |
| 12h50 – 13h05 | 15h50 – 16h05 | 17h50 – 18h05 | 21h50 – 22h05 | Yun Suk Eo, Normal State Transport in UTe_2 |
| 13h05 – 13h20 | 16h05 – 16h20 | 18h05 – 18h20 | 22h05 – 22h20 | Nils Marquardt, Magnetostriction and thermal expansion in the superconducting state of UTe_2 |

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<https://uso2web.zoom.us/j/89287377678?pwd=RUNWMEgtUVB6VjNvV3BIZEg3YThiUT09>

Meeting ID: 892 8737 7678

Access code: 923349

| PST | EST | BRT | CET | Tuesday 28 February |
|----------------------|----------------------|----------------------|----------------------|---|
| 7h50 – 8h00 | 10h50 – 11h00 | 12h50 – 13h00 | 16h50 – 17h00 | |
| 8h00 – 8h40 | 11h00 – 11h40 | 13h00 – 13h40 | 17h00 – 17h40 | Tutorial 2, Aline Ramires, Pairing symmetries in unconventional superconductors |
| | | | | Session 3: Spin-triplet superconductors, Chairperson: Rebecca Flint |
| 8h40 – 9h00 | 11h40 – 12h00 | 13h40 – 14h00 | 17h40 – 18h00 | Mitchell Bordelon, Crystalline electric fields and magnetism in UTe_2 |
| 9h00 – 9h20 | 12h00 – 12h20 | 14h00 – 14h20 | 18h00 – 18h20 | Shuqiu Wang, Visualizing a Topological Pair Density Wave |
| 9h20 – 9h40 | 12h20 – 12h40 | 14h20 – 14h40 | 18h20 – 18h40 | Tamaghna Hazra, Triplet pairing mechanisms from Hund's-Kondo models - applications to heavy fermion superconductors |
| 9h40 – 10h00 | 12h40 – 13h00 | 14h40 – 15h00 | 18h40 – 19h00 | Konstantin Semeniuk, Interplay of ordered states in the multi-phase superconductor $CeRh_2As_2$ |
| 10h00 – 10h15 | 13h00 – 13h15 | 15h00 – 15h15 | 19h00 – 19h15 | Corey Frank, Unconventional Superconductivity in Very High Magnetic Fields: UTe_2 and the frontier of heavy fermion systems |
| 10h15 – 10h30 | 13h15 – 13h30 | 15h15 – 15h30 | 19h15 – 19h30 | Sanu Mishra, Anisotropic magnetotransport in a microstructured device of the multiphase superconductor $CeRh_2As_2$ |
| 10h30 – 11h30 | 13h30 – 14h30 | 15h30 – 16h30 | 19h30 – 20h30 | Break |
| | | | | Session 4: Quantum and topological spin states, Chairperson: Sarah Dunsiger |
| 11h30 – 11h50 | 14h30 – 14h50 | 16h30 – 16h50 | 20h30 – 20h50 | Simon Rousseau, Skyrmion Lattice Phases of $EuPtSi$ |
| 11h50 – 12h10 | 14h50 – 15h10 | 16h50 – 17h10 | 20h50 – 21h10 | Brian Casas, Coexistence of merons and skyrmions in van der Waal ferromagnet $Fe_{5-x}GeTe_2$ |
| 12h10 – 12h30 | 15h10 – 15h30 | 17h10 – 17h30 | 21h10 – 21h30 | Wolfgang Simeth, Soft magnetic excitations in the heavy-fermion magnet $CeIn_3$ |
| 12h30 – 12h50 | 15h30 – 15h50 | 17h30 – 17h50 | 21h30 – 21h50 | William R. Meier, Charge density wave in kagome metal ScV_6Sn_6 |
| 12h50 – 13h05 | 15h50 – 16h05 | 17h50 – 18h05 | 21h50 – 22h05 | Atreyee Das, Tuning of fragile magnetic systems by chemical substitutions |
| 13h05 – 13h20 | 16h05 – 16h20 | 18h05 – 18h20 | 22h05 – 22h20 | Raquel Sanchez, Electronic correlations on atomic chains on the ferromagnetic kagome semimetal $Co_3Sn_2S_2$ |

1st March 2023

PST: 07h50 to 10h30, break, 11h30 to 13h30.

EST: 10h50 to 13h30, break, 14h30 to 16h30.

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<https://uso2web.zoom.us/j/83754817375?pwd=QkhzK3VMZStUeGpiTjcyaidUoxjdzo9>

Meeting ID: 837 5481 7375

Access code: 532744

| PST | EST | BRT | CET | Wednesday 01 March |
|----------------------|----------------------|----------------------|----------------------|---|
| 7h50 – 8h00 | 10h50 – 11h00 | 12h50 – 13h00 | 16h50 – 17h00 | |
| 8h00 – 8h40 | 11h00 – 11h40 | 13h00 – 13h40 | 17h00 – 17h40 | Tutorial 3, Brad Ramshaw , <i>Probing multi-component superconductivity with resonant ultrasound spectroscopy</i> |
| | | | | Session 5: Unconventional Superconductivity, Chairperson: Filip Ronning |
| 8h40 – 9h00 | 11h40 – 12h00 | 13h40 – 14h00 | 17h40 – 18h00 | Lena Engström , <i>Theoretical prediction of strain-induced superconductivity in Sr_2IrO_4</i> |
| 9h00 – 9h20 | 12h00 – 12h20 | 14h00 – 14h20 | 18h00 – 18h20 | Jinwon Lee , <i>Josephson scanning tunneling microscopy experiments on the iron-based superconductor $FeTe_{0.55}Se_{0.45}$</i> |
| 9h20 – 9h40 | 12h20 – 12h40 | 14h20 – 14h40 | 18h20 – 18h40 | Victor Quito , <i>Floquet tuning composite pair superconductivity of multi-channel Kondo materials.</i> |
| 9h40 – 10h00 | 12h40 – 13h00 | 14h40 – 15h00 | 18h40 – 19h00 | Luke Pritchard Cairns , <i>Evidence for a delocalisation quantum phase transition without symmetry breaking in $CeCoIn_5$</i> |
| 10h00 – 10h15 | 13h00 – 13h15 | 15h00 – 15h15 | 19h00 – 19h15 | Haoyu Hu , <i>Unconventional SC from Fermi Surface Fluctuations in Strongly Correlated Metals</i> |
| 10h15 – 10h30 | 13h15 – 13h30 | 15h15 – 15h30 | 19h15 – 19h30 | Sudarshan Sharma , <i>Role of spin orbital coupling in unconventional superconductivity of non-centrosymmetric superconductors</i> |
| 10h30 – 11h30 | 13h30 – 14h30 | 15h30 – 16h30 | 19h30 – 20h30 | Break |
| | | | | Session 6: Correlations in non-f electron systems, Chairperson: Pascoal Pagliuso |
| 11h30 – 11h50 | 14h30 – 14h50 | 16h30 – 16h50 | 20h30 – 20h50 | Izidor Benedicic , <i>Compass-like manipulation of electronic structure in $Sr_3Ru_2O_7$</i> |
| 11h50 – 12h10 | 14h50 – 15h10 | 16h50 – 17h10 | 20h50 – 21h10 | Marli R. Cantarino , <i>Vibrational and structural properties of the RFe_4Sb_{12} ($R = Na, K, Ca, Sr, Ba$) filled skutterudites</i> |
| 12h10 – 12h30 | 15h10 – 15h30 | 17h10 – 17h30 | 21h10 – 21h30 | Viliam Vaňo , <i>Engineering heavy fermions in two dimensions</i> |
| 12h30 – 12h50 | 15h30 – 15h50 | 17h30 – 17h50 | 21h30 – 21h50 | Ana Najev , <i>NMR and ESR: interplay between orbital and spin degrees of freedom in rare-earth titanates</i> |
| 12h50 – 13h10 | 15h50 – 16h10 | 17h50 – 18h10 | 21h50 – 22h10 | Chris Lygouras , <i>Exploring the superconducting state of a Dirac material $LaCuSb_2$</i> |
| 13h10 – 13h30 | 16h10 – 16h30 | 18h10 – 18h30 | 22h10 – 22h30 | Jazmín Aragón , <i>Impact of atomic scale defects in the electronic properties of $FeSe_{1-x}S_x$</i> |
| | | | | Closing |