

EMP user meeting, Online

Fri, May 20, 2022 9:00 AM Basel

<https://unibas.zoom.us/j/65669592495?pwd=UUVqT1NEWWR3NmxB2NmTDaveHZiQT09>

Meeting ID: 656 6959 2495 Passcode: 071915

Condensed Matter Physics Session

- 9:00 Opening, Christian Enss, Heidelberg
- 9:10 Maciej Zgirski, Polish Academy of Sciences
Quasiparticle diffusion and thermal relaxation in Meissner and vortex states
- 9:30 Victor Porée, Paul Scherrer Institute, Switzerland
Octupolar correlations in candidate quantum spin ice cerium hafnate
- 9:50 Alix McCollam, Nijmegen University
Hyperfine interactions and quantum criticality
- 10:10 Christophe Marcenat, CEA Grenoble
Modulation calorimetry at dilution temperature
- 10:30 break 20'
- 10:50 Bruno Camargo, Polish Academy of Sciences
Triggering superconductivity in the surface of Dirac semimetals
- 11:10 David Schmoranzler, Charles University, Prague
Developing Continuous sub-mK Refrigeration
- 11:30 Simon Midlik, Charles University, Prague
Acoustic emission by oscillators in superfluid ^3He
- 11:50 Sebastian Orbell, Oxford University
Bayesian methods for the optimization of Qubit quality metrics
- 12:10 lunch break 50'

Innovation Session (talks 15')

- 13:00 Rich Haley, Lancaster University
- 13:15 Andreas Fleischmann, Heidelberg University
Cross-correlated current-sensing noise thermometry
- 13:30 Parisa Fallahi, Basel Precision Instruments
Innovation at Basel Precision Instruments
- 13:45 break 15'
- 14:00 Salim Erfanifam, Leiden Cryogenics
Modelling and fabrication of an easy-to-use module for sub-mK experiments
- 14:15 Harriet van der Vliet, Oxford Instruments
Innovative products and projects at Oxford Instruments
- 14:30 Olivier Bourgeois, CNRS
Development of a full range thermometry based on niobium nitride thin film
- 14:45 break 15'

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Quantum Technology Session

- 15:00 Francesco Massel, University of South Eastern Norway
Mechanical detection of magnetic properties of graphene
- 15:20 Attila Geresdi, Chalmers University
500 microkelvin nanoelectronics
- 15:40 Simon Geyer, University of Basel
A hole spin qubit in a silicon fin field effect transistor operated above 4 K
- 16:00 Tjerk Oosterkamp, Leiden University
Cooling a MRFM force sensor to 1mK: PrNi5 in a dry dilution refrigerator
- 16:20 break 20'
- 16:40 Asser Elsayed, imec Belgium
High mobility SiMOSFETs from full 300 mm CMOS process
- 17:00 Stanislaw Galeski, MPI CPFS Dresden
Interplay of Landau quantization and the Bloch-Gruneisen temperature in the Dirac semi-metals ZrTe5 and HfTe5
- 17:20 Erwin Schuberth, TU München
State of the Experiment on Magnetic Susceptibility of YbRh₂Si₂ in Vienna
- 17:40 discussion, final remarks, future EMP user meetings and conferences
- 18:00 end of meeting