

**Condensed matter physics, x-ray scattering and x-ray spectroscopy at the APS-U
September 25 & 26, 2018**

Agenda

Tuesday, September 25, 2018 - APS Building 402, Room E1100 & E1200

- 9:00 – 9:15 Stephen Streiffer, APS Director
Welcome remarks
- 9:15 – 9:35 Dean Haeffner, Advanced Photon Source Upgrade Project
APS-U Beamline Upgrades
- 9:35 – 10:05 Simon Gerber, Paul Scherrer Institute, Switzerland
X-ray scattering and spectroscopy of quantum matter under extreme conditions
- 10:05 – 10:35 Sebastian Gliga, University of Glasgow
Imaging nanomagnets in three dimensions - Magnetic vector nanotomography
- 10:35 – 10:45 *Break*
- 10:45 – 11:15 Susanne Stemmer, UC Santa Barbara
Heterostructures, MBE growth of 3D Dirac semimetals and tuning their topological states
- 11:15 – 11:45 Taner Yildirim, NIST
Phonons in Novel Materials: From 2D Weyl semimetal MoTe₂ to 3D pnictide superconductors
- 11:45 – 13:30 Working Lunch & Discussion for Report preparation – Ercan Alp
- 13:30 – 14:00 Mark Dean, Brookhaven National Laboratory
Unfrustrated Magnetism in Iridates
- 14:00 – 14:30 James Analytis, UC Berkeley
Hidden orders in 3D Kitaev candidate beta-Li₂IrO₃
- 14:30 – 15:00 David Mandrus, ORNL
Anisotropic susceptibilities in the honeycomb Kitaev system α -RuCl₃
- 15:00 – 15:30 *Break*
- 15:30 – 16:00 Yejun Feng, Okinawa Institute of Science and Technology
Coherent x-ray magnetic scattering to explore spatial and dynamic fluctuations
- 16:00 – 16:30 Yue Cao, Argonne National Laboratory
A coherent perspective on quantum materials
- 16:30 – 17:30 Discussion

Wednesday, September 26, 2018 - APS Building 402, Room E100 & E1200

- 9:00 – 9:30 Stephen Rosenkranz, Argonne National Laboratory
Relating local disorder and short-range correlations to materials properties via single crystal diffuse scattering and 3D-PDF methods
- 9:30 – 10:00 Christoph Sahle, ESRF
X-ray Raman scattering spectroscopy based imaging at ID20 of the ESRF
- 10:00 – 10:30 Seung-Ho Yu, Cornell University
Mechanistic Studies and Operando X-ray Imaging of Energy Storage Materials
- 10:30 – 11:00 *Break*
- 11:00 – 11:30 Frank Weber, Karlsruhe Institute of Technology
Science for future IXS instrument at the APS-U
- 11:30 – 12:00 Thomas Gog, Advanced Photon Source
Scientific Opportunities with Ultra-High Energy Resolution ($\sim < 5\text{meV}$) Resonant Inelastic X-ray Scattering at the APS
- 12:30 – 13:30 Working Lunch & Report preparation
- 13:30 – 15:00 Discussion and report writing
- 16:00 Adjourn