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*


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 (<5meV) Resonant Inelastic X-ray Scattering at the APS


13:30 – 15:00  Discussion and report writing

16:00  Adjourn