

Program

Sunday, November 22nd

08:00-08:30 Registration/Sign-in

08:30-08:40 Opening

【Overview】

Session Chair: A. Bansil (Northeastern Univ., USA)

08:40-09:20 **S1** *Magnetic and Orbital RIXS - an overview*
J. van den Brink (IFW Dresden ITF, Germany)

【HX I: RIXS/NIXS】

Session Chair: A. Bansil (Northeastern Univ., USA)

09:20-10:00 **S2** *IXS/RIXS Studies under Extreme Conditions at the GALAXIES Beamline, Synchrotron SOLEIL*
J.P. Rueff (SOLEIL, France)

10:00-10:30 Break

【HX I: RIXS/NIXS】

Session Chair: W. Caliebe (DESY, Germany)

10:30-10:55 **S3** *Magnetic and Orbital Excitations in Thin Film A_2IrO_4 Probed by Hard X-ray RIXS*
P. Clancy (Univ. of Toronto, Canada)

10:55-11:20 **S4** *Dynamics of Bulk Electron-doped Sr_2IrO_4*
H. Gretarsson (MPI FKF, Germany)

11:20-11:45 **S5** *Soft Branches, Central Peak, and Strong Isotropic Negative Thermal Expansion in a Perovskite Material*
J. Hancock (Univ. of Connecticut, USA)

11:45-12:10 **S6** *ID20 Beam Line at ESRF: RIXS Applications to Spin-orbit Mott Insulators*
M. Moretti (ESRF, France)

12:10-12:35 **S7** *The Borrmann Effect in Resonant X-ray Emission Spectroscopy: towards Quadrupolar Brilliance*
S. Huotari (Univ. of Helsinki, Finland)

12:35-14:30 Poster Session Lunch (D101)

【HX II: meV & Compton】

Session Chair: Y. Sakurai (JASRI/SPring-8, Japan)

14:30-15:10 **S8** *Phonons and Electrons in $YBa_2Cu_3O_{7-\delta}$ via Non-resonant Inelastic X-ray Scattering*
A. Baron (RIKEN/SPring-8, Japan)

15:10-15:35 **S9** *Interplay between Superconductivity and CDW in Cuprates and Dichalcogenides from IXS*
M. Le Tacon (MPI FKF, Germany)

15:35-16:00 **S10** *Role of Disorder in Thermodynamics and Atomic Dynamics of Glasses*
A. Chumakov (ESRF, France)

16:00-16:30 Break

【HX II: meV & Compton】

Session Chair: S. Dugdale (Univ. of Bristol, UK)

16:30-16:55 **S11** *Towards 0.1-meV-Resolution Inelastic X-ray Scattering*
Y. Shvyd'ko (ANL, USA)

16:55-17:20 **S12** *Spin and Orbital Magnetization in the Ferromagnetic Superconductor UCoGe*
J. Duffy (Univ. of Warwick, UK)

17:20-17:45 **S13** *The Ultrahigh Resolution Inelastic X-ray Scattering (IXS) Beamline at NSLS-II and Opportunities for the Study of Fast Dynamics in Mesoscale*
Y. Cai (NSLS-II/BNL, USA)

17:45-18:10 **S14** *Approaching meV Resolution RIXS Instrument in the Hard X-ray Regime*
H. Yavas (DESY, Germany)

18:10~ **Reception (cafeteria)**

Monday, November 23rd

[SX]

Session Chair: G. Ghiringhelli (Polytechnic Univ. of Milan, Italy)

08:30-09:10 **M1** *Case Studies of Elementary Excitations in Cuprates using Soft X-Ray RIXS*
W.S. Lee (SLAC, USA)

09:10-09:35 **M2** *Magnons in an Edge-sharing 2D Cooperate: Tetragonal CuO*
M. Grioni (EPFL, Switzerland)

09:35-10:00 **M3** *The Microscopic Structure of Charge Order in Cuprates*
R. Comin (Univ. of Toronto, Canada)

10:00-10:30 **Group Photo & Break**

[SX]

Session Chair: J.H. Guo (Berkeley Lab, USA)

10:30-10:55 **M4** *Spin and Charge Excitations in Doped Cuprates*
K. Ishii (Japan Atomic Energy Agency, Japan)

10:55-11:20 **M5** *Ultrafast Dimensionality-dependent Dynamics of Magnetic Correlations in Photo-doped Sr_2IrO_4*
M. Dean (BNL, USA)

11:20-11:45 **M6** *Revealing the Electronic Ground State of $ReNiO_3$ Combining High-resolution Ni-L₃ X-ray Absorption and Resonant Inelastic X-ray Scattering*
V. Bisogni (BNL, USA)

11:45-12:10 **M7** *Occupied Density of States from Single Shot Two-color Measurements*
M. Beye (HZB, Germany)

12:10-12:25 **Sponsor Presentation**

Session Chair: J.M. Chen (NSRRC, Taiwan)

12:25-14:30 **Poster Session Lunch (D101)**

IXS Executive Meeting (D251)

[Theory]

Session Chair: C.Y. Mou (NTHU, Taiwan)

14:30-15:10 **M8** *On the Theory of Resonant Inelastic X-ray Scattering in Correlated Materials*
T. Devereaux (SLAC, USA)

15:10-15:35 **M9** *Photoinduced Ultrafast Charge-order Melting: Charge-order Inversion and Non-thermal Effects*
M. van Veenendaal (Northern Illinois Univ., USA)

15:35-16:00 **M10** *Charge Transfer and Orbital Excitations in RIXS*
K. Wohlfeld (Univ. of Warsaw, Poland)

16:00-16:30 **Break**

[Theory]

Session Chair: H.C. Hsueh (TKU, Taiwan)

16:30-16:55 **M11** *Collective Excitations Probed by L-edge RIXS in Iridium Compounds*
J. Igarashi (Ibaraki Univ., Japan)

16:55-17:20 **M12** *Magnetic Circular Dichroism of Hard X-ray Non-resonant Raman Scattering at Transition Metal L-edges*
M. Takahashi (Gunma Univ., Japan)

- 17:20-17:45 **M13** *Enhanced Charge Excitations in Electron-doped Cuprates by Resonant Inelastic X-ray Scattering*
T. Tohyama (Tokyo Univ. of Science, Japan)

Tuesday, November 24th

【Multi Techniques】

Session Chair: C.H. Du (TKU, Taiwan)

- 08:30-09:10 **T1** *TBD*
B. Keimer (MPI FKF, Germany)
- 09:10-09:35 **T2** *X-ray and Neutron Scattering Studies of Lattice Dynamics Near the Metal-Insulator Transition in VO₂*
J. Budai (ORNL, USA)
- 09:35-10:00 **T3** *Different Electronic and Magnetic Phases in Iron-based Chalcogenide Superconductors*
N. L. Saini (Sapienza Univ. of Rome, Italy)

10:00-10:30 Break

【XFEL】

Session Chair: K.D. Tsuei (NSRRC, Taiwan)

- 10:30-11:10 **T4** *X-ray Emission Spectroscopy in Transition Metal Systems using an X-ray Free Electron Laser*
Uwe Bergmann (SLAC, USA)
- 11:10-11:35 **T5** *Orbital-specific Mapping of Chemical Dynamics with X-rays*
P. Wernet (HZB, Germany)
- 11:35-12:00 **T6** *Ultrafast Dynamics in Light-excited Transition Metal Complexes Revealed with Hard X-ray Spectroscopy*
G. Vankó (Hungarian Academy of Sciences, Hungary)

12:00-13:00 Lunch (cafeteria)

13:00-14:30 TPS Tour (meet at Gate 5)

【SX Experiment Frontier】

Session Chair: W.F. Pong (TKU, Taiwan)

- 14:30-15:10 **T7** *High Resolution Soft-RIXS: Recent Achievements and Future Challenges*
G. Ghiringhelli (Polytechnic Univ. of Milan, Italy)
- 15:10-15:35 **T8** *Instrumental Upgrades of the RIXS Station at the ADRESS Beamline of the Swiss Light Source*
T. Schmitt (PSI, Switzerland)
- 15:35-16:00 **T9** *A New Beamline for Soft X-ray Resonant Inelastic X-ray Scattering at the ESRF*
N. Brookes (ESRF, France)

16:00-16:30 Break

【SX Experiment Frontier】

Session Chair: J.Y. Lin (NCTU, Taiwan)

- 16:30-16:55 **T10** *High-Resolution Soft X-ray RIXS Using Active Gratings and Energy Compensation*
W.B. Wu (NSRRC, Taiwan)
- 16:55-17:20 **T11** *Towards 10-meV Resolved Resonant Inelastic Soft X-ray Scattering at NSLS-II*
I. Jarrige (NSLS-II/BNL, USA)
- 17:20-17:45 **T12** *Beamline I21 – Resonant Inelastic X-ray Scattering (RIXS) at Diamond Light*
K.J. Zhou (DLS, UK)

18:00-18:30 Bus to Banquet

18:30~ Banquet (Ambassador Hotel)

Wednesday, November 25th

【 Focused Topic I: Energy Materials & Related 】

Session Chair: T.K. Sham (Univ. of W. Ontario, Canada)

- 08:30-09:10 **W1** *Resonant Inelastic X-ray Scattering of Transition Metal Oxides*
F. de Groot (Utrecht Univ., Netherlands)
- 09:10-09:35 **W2** *In-situ/Operando Soft X-Ray Spectroscopy of Catalytic and Electrochemical Reactions*
J.H. Guo (Berkeley Lab, USA)
- 09:35-10:00 **W3** *X-ray Spectroscopic Studies of Materials for Energy Applications*
B. Barbiellini (Northeastern Univ., USA)

10:00-10:30 **Break**

【 Focused Topic I: Energy Materials & Related 】

Session Chair: Uwe Bergmann (SLAC, USA)

- 10:30-10:55 **W4** *In Situ and Operando Soft X-ray Emission Spectroscopy of Non-Pt Fuel Cell Catalysts*
H. Niwa (The Univ. of Tokyo, Japan)
- 10:55-11:20 **W5** *Redox Reactions Followed by RIXS*
P. Glatzel (ESRF, France)
- 11:20-11:45 **W6** *Ground State Potential Energy Surfaces and Femtosecond Dynamics around Selected Atoms from Resonant Inelastic X-ray Scattering*
A. Pietzsch (HZB, Germany)

11:45-14:30 **Lunch (cafeteria)**

【 Focused Topic II: Extreme Conditions 】

Session Chair: Y. Ding (HPSTAR, China)

- 14:30-15:10 **W7** *Inelastic X-ray Scattering under Extreme Pressures*
H.K. Mao (Carnegie Institution of Washington, USA)
- 15:10-15:35 **W8** *In Situ Characterization of the Local Coordination, Oxidation, and Spin State of Earth Materials at Pressure and Temperature*
C. Sternemann (Technical Univ. of Dortmund, Germany)
- 15:35-16:00 **W9** *A Bent Laue Spectrometer for X-ray Raman and Compton Scattering Studies*
N. Hiraoka (NSRRC, Taiwan)

16:00-16:30 **Break**

【 Poster Talks 】

Session Chair: N. Hiraoka (NSRRC, Taiwan)

- 16:30-16:45 Poster Talk 1
- 16:45-17:00 Poster Talk 2
- 17:00-17:15 Poster Talk 3

【 Summary 】

Session Chair: D.J. Huang (NSRRC, Taiwan)

- 17:15-17:55 **W10** *Conference Summary*
A. Bansil (Northeastern Univ., USA)
- 17:55-18:15 **Closing**

Thursday, November 26th

07:30~ **Excursion**