RIXSREXS2021 Workshop - Agenda

NY Time	August 25th 2021	August 26th 2021	August 27th 2021
8.15	Registration (Bldg.400) / Breakfast*	Breakfast*	Breakfast*
8:50	Opening Remarks		
9:00	B. Keimer	T. Hesjedal	T. Tohyama
9:45	H. Suzuki	K.J. Zhou	Y. Peng
10:15	T. Schmitt	M. Mitrano	H. Elnaggar
10:45	Coffee Break*	Coffee Break*	Coffee Break*
11:15	H. Miao	S. Roy	M. Grüninger
11.45	D. J. Huang	N. Jaouen	M. Hirschberger
12.05	A. Nag	U. Staub	M. Haverkort
12.25	R. Arpaia	C. Mazzoli	P. Radhakrishnan
12:45	Lunch Break*	Lunch Break*	Lunch Break*
13:45	Posters	Posters	Posters
14:15	R. Comin	W. S. Lee	R. Kukreja
15:00	J. Kim	T. Deveraux	S. Johnston
15:30	A. De La Torre	D. Mazzone	C. Dashwood
15:50	J. Sears	T. Asmara	T. Datta
16:10	Coffee Break*	Coffee Break*	Coffee Break*
16:30	X. Chen	J. Turner	NSLS II Tour
17:00	E. da Silva Neto	J. Li	
17:20	R. Smaha	J. Pelliciari	
17:40	Dinner*	Dinner*	Dinner*

Legend: Plenary Speaker

Invited Speaker

Contributed Speaker

* *Meals and coffee breaks included for onsite participants*

NY Time	August 25th 2021
8.15	**Registration (Bldg.400) / Breakfast**
8:50	**Opening Remarks**
9:00	**B. Keimer** "IRIXS: Status and Perspectives"
9:45	**H. Suzuki** "Exotic magnetism in honeycomb ruthenium compounds: Critical role of spin-orbit coupling"
10:15	**T. Schmitt** "Tuning of spin-orbital interactions and charge gap by epitaxial strain in Sr_2IrO_4"
10:45	**Coffee Break**
11:15	**H. Miao** "Bad Metal Phase in Charge Frustrated Pyrochlore $Cd_2Re_2O_7$"
11.45	**D. J. Huang** "Quantum fluctuations of charge order induce phonon softening in a superconducting cuprate"
12.05	**A. Nag** "Detection of Acoustic Plasmons in Hole-Doped Lanthanum and Bismuth Cuprate Superconductors Using RIXS"
12.25	**R. Arpaia** "Doping and temperature evolution of charge density fluctuations in two families of high-Tc superconductors"
12:45	**Lunch Break**
13:45	**Posters**
14:15	**R. Comin** "Charge-density-waves in a magnetic insulating cuprate"
15:00	**J. Kim** "Magnetic reconstructions of Sr_2IrO_4 thin films via interfacial interactions"
15:30	**A. De La Torre** "Nearly itinerant electronic ground state in the intercalated honeycomb iridate $Ag_3LiIr_2O_6$"
15:50	**J. Sears** "Ferromagnetic Kitaev interaction and the origin of large magnetic anisotropy in α-$RuCl_3$"
16:10	**Coffee Break**
16:30	**X. Chen** "Spin order formation and dynamics without a global inversion symmetry"
17:00	**E. da Silva Neto** "Dynamic electron correlations with charge order wavelength along all directions in the copper oxide plane"
17:20	**R. Smaha** "High energy spin excitations in the quantum spin liquid candidate Zn-barlowite probed by inelastic x-ray scattering"

NY Time	August 26th 2021
8.15	**Breakfast**
9:00	**T. Hesjedal** "Resonant Elastic X-Ray Scattering Study of Skyrmion Lattices – Microscopic Properties, 3D Structure, and Dynamics"
9:45	**K.J. Zhou** "Spin-correlation in correlated quantum materials"
10:15	**M. Mitrano** "Ultrafast renormalization of the onsite Coulomb repulsion in a cuprate superconductor"
10:45	**Coffee Break**
11:15	**S. Roy** "Coherent X-ray scattering from an artificial square antiferromagnet"
11.45	**N. Jaouen** "Chirality in multilayers probed by soft x-ray (coherent) scattering"
12.05	**U. Staub** "Structural involvement in the charge density wave in 1T-$TiSe_2$"
12.25	**C. Mazzoli** "The trapping effect of an ANNNI Devil's staircase revealed by coherent soft REXS"
12:45	**Lunch Break**
13:45	**Posters**
14:15	**W. S. Lee** "RIXS study of Infinite-layer Nickelate Superconductors"
15:00	**T. Deveraux** "Time-resolved RIXS for quantum materials"
15:30	**D. Mazzone** "Laser-induced transient magnons in $Sr_3Ir_2O_7$ throughout the Brillouin zone"
15:50	**T. Asmara** "Roles of electron-phonon interactions in the phase transitions of rare-earth nickelates"
16:10	**Coffee Break**
16:30	**J. Turner** "Resonant Quasielastic X-ray Scattering"
17:00	**J. Li** "Sudden collapse of magnetic order in oxygen deficient nickelate films"
17:20	**J. Pelliciari** "Resonant Inelastic X-Ray Scattering to study ultrathin quantum materials"

NY Time	August 27th 2021
8.15	**Breakfast**
9:00	**T. Tohyama** "Possible application of time-resolved resonant-inelastic x-ray scattering to photoexcited Mott insulators"
9:45	**Y. Peng** "RIXS study of electron-phonon coupling in Cuprates and orbital excitations in (Li,Fe)OHFeSe"
10:15	**H. Elnaggar** "2p3d RIXS angular dependence at spin-flip excitations: A method to identify the square peg in a round hole"
10:45	**Coffee Break**
11:15	**M. Grüninger** "Fingerprints of Kitaev physics: RIXS on honeycomb Na_2IrO_3 and α-Li_2IrO_3"
11.45	**M. Hirschberger** "Resonant tender x-ray scattering from Ru-4d conduction electrons in the centrosymmetric skyrmion host $Gd_3Ru_4Al_{12}$"
12.05	**M. Haverkort** "Width of core level resonances in XAS and the importance of the induced intermediate state interferences for RIXS"
12.25	**P. Radhakrishnan** "Orbital engineering in YVO_3-$LaAlO_3$ superlattices"
12:45	**Lunch Break**
13:45	**Posters**
14:15	**R. Kukreja** "Coherent x-ray scattering studies of complex oxides"
15:00	**S. Johnston** "New theoretical insights into how resonant inelastic x-ray scattering probes electron-phonon interactions in solids"
15:30	**C. Dashwood** "Probing electron-phonon coupling away from the Fermi level with resonant inelastic x-ray scattering"
15:50	**T. Datta** "Resonant inelastic x-ray scattering study of vector chiral ordered kagome antiferromagnet"
16:10	**Coffee Break**
16:30	**NSLS II Tour**
17:00	
17:20	

List of Posters:

1. **MagStREXS: Magnetic Structures through Resonant Elastic X-ray Scattering**
Pablo Bereciartua, Deutsches Elektronen-Synchrotron (DESY)

2. **Characterizing mesoscopic antiferromagnetic spin textures in the dilute limit**
Martin Bluschke, University of British Columbia

3. **Integrating machine learning into X-ray scattering setups**
Thomas Chen, Academy for Mathematics, Science, and Engineering

4. **A-type antiferromagnetism in a room van der Waals magnetic metal**
Xiang Chen, University of California, Berkeley

5. **Site-specific spectroscopic measurement of spin and charge in $(LuFeO_3)_m/(LuFe_2O_4)_1$ multiferroic superlattices**
Shiyu Fan, Brookhaven National Laboratory

6. **Strain-induced orbital energy shift in antiferromagnetic RuO_2 revealed by resonant x-ray scattering**
Benjamin Gregory, Cornell University

7. **Microscopic study of the spin Seebeck effect in YIG with resonant inelastic x-ray scattering**
Yanhong Gu, Brookhaven National Laboratory

8. **Spectroscopic characterization of electronic structure of ultra-thin single crystal $La_{0.7}Sr_{0.3}MnO_3$**
Shih-Wen Huang, MAX IV, Lund University

9. **Orbital excitations on the cusp of Mott-band insulator crossover in 1T-TaS_2**
Xun Jia, Argonne National Laboratory

10. **Interface carriers and enhanced electron-phonon coupling effect in Al_2O_3/TiO_2 heterostructure**
Cheng-Tai Kuo, SLAC National Accelerator Laboratory

11. **DFT-based Resonant inelastic resonant scattering study of $LaNiO_3$, $LaCoO_3$, and $LaCoO_3/LaTiO_3$**
Alex Lee, Yale University

12. **Multi-spin excitations in an antiferromagnetic S=5/2 system**
Jiemin Li, Brookhaven National Laboratory

13. **Fractional Spin Excitations in infinite layer cuprate**
Leonardo Martinelli, Politecnico di Milano

14. **Ultrahigh Resolution hv2-RIXS Spectrometer at New 3 GeV Synchrotron Facility in Tohoku**
Jun Miyawaki, National Institutes for Quantum and Radiological Science and Technology (QST)

15. **Electrical tuning of Metamagnetic Transition of Quasi-2D Jeff = 1/2 Antiferromagnet by In Situ Anisotropic Strain**
Shashi Pandey, University of Tennessee

16. **Modification of Cu-charge density wave at a $YBa_2Cu_3O_7$/ manganite inter-face**
Subhrangsu Sarkar, University of Fribourg

17. **Charge Condensation and Lattice Coupling Drives Stripe Formation in $La_{2-x}Sr_xNiO_{4+\delta}$**
Yao Shen, Brookhaven National Laboratory

18. **Electron Phonon excitations in a Hubbard-Holstein Chain probed using Resonant Inelastic X-Ray Scattering**
Jinu Thomas, University of Tennessee Knoxville

19. **Crossover of the high-energy spin fluctuations from collective triplons to localized magnetic excitations in doped $Sr_{14-x}Ca_xCu_{24}O_{41}$ cuprate ladders**
Yi Tseng, Paul Scherrer Institute

20. **Ultrafast dynamics and coupling of magnetic sublattices in room-temperature multiferroic hexaferrite**
Hiroki Ueda, Paul Scherrer Institute

21. **Damping of intermediate-spin excitonic dispersion in $LaCoO_3$ by thermal fluctuations**
Ru-Pan Wang, University Hamburg

22. **Van der Waals 2D cuprate superconductors – potential device building blocks for quantum applications**
Patryk Wasik, Brookhaven National Laboratory

23. **Resonant Soft X-ray Study of Spin Stripe Domain Fluctuations in a Complex Oxide**
Longlong Wu, Brookhaven National Laboratory

24. **Resonant inelastic x-ray scattering study on (Li,Fe)OHFeSe**
Qian Xiao, Peking University

25. **Plasmons and bond-charge excitations in layered t-J model**
Hiroyuki Yamase, National Institute for Materials Science

26. **Electronic structure of the frustrated diamond lattice magnet $NiRh_2O_4$**
Ben Zager, Brown University

27. **Disentangling charge and spin excitations and their evolution in the phase diagram of $Bi_2Sr_2CaCu_2O_{8+}$ superconducting cuprate**
Wenliang Zhang, Paul Scherrer Institute