

The 11th International Conference on Inelastic X-ray Scattering

June 23-28, 2019 Charles B. Wang Center Stony Brook University

Conference Program



11th International Conference on Inelastic X-ray Scattering (IXS2019) Schedule at a Glance 6/24/2019 Breakfast Breakfast Breakfast Breakfast Breakfast Check-in & Registration Intro of PA Opening Remarks Cai, Y; Reeder, R; Bansil, A (Plenary) (Plenary) (Plenary) (Plenary) Poster Award Baron, A (4 x 15 mins) 9:10 Bertinshaw, J 9:10 Pelliciari, J Rueff, J-P (contributed) (contributed) (contributed) Dever Uchiyama, H Chair: Peng, Y Intro of YSA Chair: (Invited) (Invited) (Invited) Chair: Moon, J 9:55 Wehinger, B Miao, H Suzuki, K (Invited) (Invited) 10:05 Kummer, K Wang, Y (invited) Materi 10:20 10:20 10:20 10:30 Coffee Break Coffee Break Coffee Break Coffee Break Coffee Break Juhin, A 10:50 (Invited) (Invited) (Invited) (Plenary) 11:00 Amorese, A (contributed) 11:15 ≷ 11:20 Merritt, A Ţ (contributed) (contributed) (contributed) Callebe, (contributed) 11:30 Kao, C-C 11:35 11:35 Stankov, S Le Tacon, M Hu. Michael (Plenary) 11:4 Dean, M (Invited) (Invited) Chair: (Invited) Chair: 12:00 Mivawaki, J 12:00 de Groot. F Inami, T 12:00 Huang, D 12:00 (Invited) (Invited) (Invited) (Invited) Bansil, A. 12:10 12:25 12:25 12:25 12.2 & Next Conf.) 12:40 Lunch Lunch Lunch Lunch (Boxed to Go) XSE Lunch & Poster Session 13:45 Pietzsch. A 13:4 Bisogni, V 13:45 Poster Session (Invited) (Invited) Bus to Vineyard 14:10 Zhou, K Cunsolo, A (Invited) (Invited) 14:30 Ghiringhelli 14:35 Schlappa, J Ohtani. E (Plenary) Chair: (Invited) (Invited) Chair Malvestuto, M Dean, M 15:00 Dakovski, G Zhernenkov, M Huang, D-J (Invited) (Invited) (Invited) 15:10 Vaz Da Cruz, V (contributed) Chair: Excursion: Chuang, Y-D 15:25 Mitrano, M Wine tasting Ikeno, H Chair: (invited) (contributed) (contributed) Bus to BNL 15.45 15:50 Tohyama, T 15:50 Schmitt, T Coffee Break (invited) (Invited) 16:15 16:15 16:15 Kim, J-H (Invited) Coffee Break Coffee Break Check-in & Registraton Gretarsson, H @ Hilton Garden Inn, Stony 16:45 Devereaux, T 16:45 Föhlisch, A (Invited) (invited) (Invited) BNL/NSLS-II Toui Bus for SBU Sahle, C 17:10 Nocera, A 17:10 Kroll, T (Invited) (contributed) (contributed) Chair 17:30 17:30 17:30 Hiraoka, N 17:30 Kunes. J Saito, M Chair: (Invited) (Invited) (Invited) 17:55 17:55 Paramekanti, A Bencivenga, F 17:55 Baron, A 18:00 (Invited) (Invited) (Invited) Bus to Danfords, Port Welcome Reception Jefferson @ Hilton Garden Inn, Stony 18:20 18:20 18:20 Brook 19:00 19:00 19:00 Conference Banquet Plenary Talk @ Danford's Hotel & Marin Invited Talk Mizuki, J: Post Banquet Talk Contributed/Award Talk Dinner Dinner Announcement of next Session conference Session Chair Opening Function & Tour Bus for SBU

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Welcome

On behalf of the National Synchrotron Light Source II (NSLS-II) and Stony Brook University (SBU), we warmly welcome you to the 11th International Conference on Inelastic X-ray Scattering (IXS2019), which will be held this year on June 23 – 28 in the Charles B. Wang Center on the SBU campus, Stony Brook, New York. This conference series, now held every two years, serves as the prime forum in our community to highlight the latest scientific and technical advances in inelastic x-ray scattering.

We strive to continue this tradition. This year's conference program is designed to foster discussion on several key fronts including: frontier materials science topics ranging from quantum, energy, functional materials, to soft, glassy and biological materials, studies in the time domains and under extreme and operando conditions, the latest developments in novel IXS instrumentation, experimental approaches and theories, and the future of IXS with storage ring upgrades and at new XFEL sources. The program includes 9 plenary, 40 invited, 14 contributed, 2 IUCr sponsored young scientist award talks, approximately 60 posters, and 4 poster award presentations.

We are grateful to the generous support provided by NSLS-II, the NSLS-II UEC, Stony Brook University, the International Union of Crystallography (IUCr), and the American Physical Society. We also recognize the invaluable role of our exhibitors and sponsors in making this event a success. A list of the conference supporters can be found in this booklet.

It is a true privilege to serve this community by organizing IXS2019. We owe many thanks to those who made this conference possible including members of the Local Organizing Committee and the International Program Committee, along with Mercy Baez, Eileen Morello and staff of the Users Office of NSLS-II for their dedicated support of this endeavour throughout the past year. Special thanks also go to Ben Ocko for his contributions to many of the programming details.

We wish everyone a productive conference and an enjoyable stay on Long Island.

Yong Cai Chair, 11th International Conference on Inelastic X-ray Scattering NSLS-II, BNL

Mark Dean, Ignace Jarrige Co-chairs, 11th International Conference on Inelastic X-ray Scattering NSLS-II, BNL

Young-June Kim

Chair of Program Committee, 11th International Conference on Inelastic X-ray Scattering
University of Toronto

Committees

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Wolfgang Caliebe (DESY, Germany)

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Yoshiharu Sakurai (JASRI, Japan)

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Alfred Baron (RIKEN SPring-8, Japan)

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Jinghua Guo (LBNL, USA)

Jason Hancock (Univ. Connecticut, USA)

Yoshihisa Harada (Univ. Tokyo, Japan)

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Di-Jing Huang (NSRRC, Taiwan)

Simo Huotari (Univ. Helsinki, Finland)

Kenji Ishii (QST, Japan)

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Mathieu Le Tacon (KIT, Germany)

Xuerong Liu (ShanghaiTech Univ., China)

Claudio Masciovecchio (ELETTRA, Italy)

Marco Moretti Sala (Politecnico di Milano, Italy)

Jan-Erik Rubensson (Uppsala Univ., Sweden)

Yoshiharu Sakurai (JASRI, Japan)

Thorsten Schmitt (PSI, Switzerland)

Liu Hao Tjeng (MPI-CPfS, Germany)

Takami Tohyama (Tokyo Univ. Science, Japan)

Jeroen van den Brink (IFW Dresden, Germany)

Hasan Yavas (SLAC, USA)

Kejin Zhou (DLS, UK)

Local Organizing Committee

Yong Cai (BNL, USA), Chair

Mark Dean (BNL, USA), Co-chair

Ignace Jarrige (BNL, USA), Co-chair

Valentina Bisogni (BNL, USA)

Alessandro Cunsolo (BNL, USA)

Ben Ocko (BNL, USA)

John Parise (SBU, USA)

Ron Pindak (BNL, USA)

Alexey Suvorov (BNL, USA)

Conference Events & Useful Info

Registered attendees are invited to attend the welcome reception, NSLS-II Facility tour, banquet dinner and excursion. Please visit the Registration Desk for further details.

Welcome Reception: Sunday, June 23, 6:00 PM - 8:00 PM

Hilton Garden Inn Stony Brook

1 Circle Road, Stony Brook, NY 11794

No charge for registered attendees; additional cost for guests.

NSLS-II Facility Tour: Thursday, June 27, 4:00 PM - 6:00 PM

Open to all registered attendees. Tour sign-up is available during Conference Registration while space is available. Buses start departing at 3:30 PM.

<u>Important Note</u>: NSLS-II is posted a Controlled Radiation Area. Minors under the age of 10 years old are not allowed to tour the facility. Guests must wear **long pants and flat, closed-toe shoes**. Access may be restricted if proper attire is not worn.

No charge for registered attendees; transportation will be provided.

Conference Banquet: Thursday, June 27, 7:00 PM - 10:00 PM

Danford's Hotel & Marina

25 East Broadway, Port Jefferson, NY 11777

Please visit the Registration Desk to purchase your banquet ticket. Transportation to the banquet will be provided for tour participants.

Excursion: Friday, June 28, 2:30 PM - 4:30 PM

Baiting Hollow Farm Vineyard

2114 Sound Ave, Calverton, NY 11933

Limited number of seats are still available. Please visit the Registration Desk to purchase your excursion ticket. Transportation will be provided.

WIFI Access in Wang Center and on SBU Campus

Eduroam is available throughout SBU Campus for attendees from participating institutions. Further details can be found at https://it.stonybrook.edu/services/eduroam. Alternatively, please use WolfieNet-Guest. For login instructions, please visit https://it.stonybrook.edu/services/wolfienet/guest. Access request has been made for all registered participants.

Parking

Free parking is available at the parking lot next to the SBU conference housing (Tubman Halls). Please refer to the map at the end of this program.

Emergency Contact

In case of emergency, please contact Conference Coordinator: Mercy Baez, Tel: (631) 708-4778

Program

Sunday, June 23, 2019			
16:00 – 18:00	Check-in and Registration at Hilton Garden Inn at Stony Brook		
18:00 – 20:00	Welcome Reception at Hilton	n Garden Inn at Stony Brook	
	Monday	ı, June 24, 2019	
08:00 - 08:30	Breakfast, Check-in and Regi	stration at Wang Center	
[Welcome and C	Opening Remarks] Ses	ssion Chair: Yong Cai, Brookhaven National La	boratory
08:30 - 08:45	Yong Cai, <i>Brookhaven Natior</i> Richard Reeder, <i>Stony Brook</i> Arun Bansil, <i>Northeastern Ui</i>	University	
[Overview]		Session Chair: Arun Bansil, Northeastern U	niversity
08:45 – 09:25	"Inelastic X-ray Scattering: Past, Present and Future" (tentative) (P-1) John Hill, Brookhaven National Laboratory		
[Quantum Mate	erials I] A	Session Chair: Arun Bansil, Northeastern U	niversity
09:25 – 10:05	"RIXS beyond cuprates: an o Young-June Kim, <i>University o</i>		(P-2)
10:05 – 10:30	status and opportunities"	ations in the lanthanides with RIXS: current	(I-1)
	Kurt Kummer, European Synd	chrotron Radiation Facility	
10:30 – 11:00	Coffee break		
[Quantum Mate	erials I] B	Session Chair: Thorsten Schmitt, Paul Scherre	r Institut
11:00 – 11:20	"RIXS characterization of the giant crystal field, multiplet mixing and magnetism in $CeRh_3B_2$ " Andrea Amorese, Max Planck Institute for Chemical Physics of Solids		
11:20 – 11:40	"Nematic Fluctuations and Lattice Coupling in Ba(Fe _{0.97} Co _{0.03}) ₂ As ₂ and (C-2) FeSe" Adrian Merritt, University of Colorado – Boulder		

11:40 – 12:00	"Topological Phononic Excitations Revealed by Inelastic X-Ray Scattering" (C-3) Mark Dean, Brookhaven National Laboratory			
12:00 – 12:25	"High Performance Soft X-ray RIXS and Applications to Magnetic Materials" Jun Miyawaki, <i>University of Tokyo</i>			
[Poster Session]	A			
12:25 – 14:30	Lunch & Poster Session (Conference Group Photo)			
[Theory] A	Session Chair: Di-Jing Huang, National Synchrotron Radiation Research	Center		
14:30 – 15:10	"X-ray core level spectroscopy, what do we learn and which level of theory do we need" Maurits Haverkort, Heidelberg University			
15:10 – 15:30	"First-principles modelling of RIXS in liquid water: Core-excited nuclear dynamics and the distribution of local potential energy surfaces" Vinicius Vaz Da Cruz, <i>University of Potsdam</i>	(C-4)		
15:30 – 15:50	"Systematic Calculations of RIXS for the 3d Transition Metal Oxides by the Ab-initio Multiplet Methods" Hidekazu Ikeno, Osaka Prefecture University			
15:50 – 16:15	"Spin and Charge Excitations in Stripe-Ordered Cuprates" Takami Tohyama, <i>Tokyo University of Science</i>	(1-3)		
16:15 – 16:45	Coffee Break			
[Theory] B	Session Chair: Frank de Groot, <i>Utrecht Un</i>	iversity		
16:45 – 17:10	"Unbiased simulations of the Hubbard model and how to see collective charge modes" Tom Devereaux, SLAC National Accelerator Laboratory	(1-4)		
17:10 – 17:30	"Computing Resonant Inelastic X-Ray Scattering Spectra Using The Density Matrix Renormalization Group Method" Alberto Nocera, <i>University of British Columbia</i>			
17:30 – 17:55	"LDA+DMFT approach to calculation of RIXS spectra" Jan Kuneš, <i>TU Wien</i>			
17:55 – 18:20	"RIXS for 5d spin-orbit coupled oxides in the strong Mott-insulator limit" Arun Paramekanti, <i>University of Toronto</i>	(1-6)		
19:00	Wang Center closes for the evening (Please leave the building by 18:45)			
19:00 – 22:00	Dinner at Hilton Garden Inn, Stony Brook			

Tuesday, June 25, 2019			
08:00 - 08:30	Breakfast, Check-in and Registration at Wang Center		
[Functional Mat	erials] A Session Chair: Alfred Baron, RIKEN SPring-	-8 Center	
08:30 - 09:10	"Studies of Phonons with Inelastic X-Ray Scattering and First-Principles Simulations: Anharmonicity, Electron-Phonon and Spin-Phonon Couplings" Olivier Delaire, <i>Duke University</i>		
09:10 – 09:30	"Magnetic Dynamics of Sr ₂ IrO ₄ /Sr ₃ Ir ₂ O ₇ Superlattices" Joel Bertinshaw, Max-Planck-Institut für Festkörperforschung	(C-7)	
09:30 – 09:55	"Estimation of phonon lifetime in epitaxial films" Hiroshi Uchiyama, Japan Synchrotron Radiation Research Institute (JASRI), SPring-8	(1-7)	
09:55 – 10:20	"Spin and lattice correlations in quantum magnets and the full elasticity (I tensor from thermal diffuse scattering" Björn Wehinger, University of Geneva		
10:20 – 10:50	Coffee Break		
[Functional Materials] B Session Chair: Wolfgang Caliebe, DESY			
[Functional Mat	erials] B Session Chair: Wolfgang Calie	be, <i>DESY</i>	
[Functional Mat 10:50 – 11:15	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials" Amélie Juhin, Sorbonne Université	(I-9)	
_	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials"		
10:50 – 11:15	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials" Amélie Juhin, Sorbonne Université "Imaging sub-micrometer length scales with RIXS on complex oxides"	(1-9)	
10:50 – 11:15 11:15 – 11:35	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials" Amélie Juhin, Sorbonne Université "Imaging sub-micrometer length scales with RIXS on complex oxides" Martin Beye, DESY "Lattice dynamics of epitaxial strain-free interfaces"	(I-9) (C-8)	
10:50 - 11:15 11:15 - 11:35 11:35 - 12:00	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials" Amélie Juhin, Sorbonne Université "Imaging sub-micrometer length scales with RIXS on complex oxides" Martin Beye, DESY "Lattice dynamics of epitaxial strain-free interfaces" Svetoslav Stankov, Karlsruher Institut für Technologie (KIT) "Magnetic circular dichroism in x-ray florescence" Toshiya Inami, National Institutes for Quantum and Radiological Science and Technology	(I-9) (C-8) (I-10)	
10:50 - 11:15 11:15 - 11:35 11:35 - 12:00 12:00 - 12:25	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials" Amélie Juhin, Sorbonne Université "Imaging sub-micrometer length scales with RIXS on complex oxides" Martin Beye, DESY "Lattice dynamics of epitaxial strain-free interfaces" Svetoslav Stankov, Karlsruher Institut für Technologie (KIT) "Magnetic circular dichroism in x-ray florescence" Toshiya Inami, National Institutes for Quantum and Radiological Science and Technology	(I-9) (C-8) (I-10)	
10:50 – 11:15 11:15 – 11:35 11:35 – 12:00 12:00 – 12:25 [Poster Session]	"Advanced magnetic spectroscopies for the fine characterization of magnetic nanomaterials" Amélie Juhin, Sorbonne Université "Imaging sub-micrometer length scales with RIXS on complex oxides" Martin Beye, DESY "Lattice dynamics of epitaxial strain-free interfaces" Svetoslav Stankov, Karlsruher Institut für Technologie (KIT) "Magnetic circular dichroism in x-ray florescence" Toshiya Inami, National Institutes for Quantum and Radiological Science and Technology B Lunch & Poster Session	(I-9) (C-8) (I-10) (I-11)	

15:00 – 15:25	"Resonant inelastic EUV scattering at a seeded free electron laser" (I-1. Marco Malvestuto, Elettra Sincrotrone Trieste			
15:25 – 15:50	"Ultrafast time-resolved x-ray scattering reveals diffusive charge order dynamics in $La_{2-x}Ba_xCuO_4$ " Matteo Mitrano, University of Illinois at Urbana-Champaign			
15:50 – 16:15	"Time-resolved Resonant Inelastic X-ray Scattering on Quantum (Materials" Thorsten Schmitt, Paul Scherrer Institut			
16:15 – 16:45	Coffee Break			
[Time-Domain S	pectroscopy] B Session Chair: Hasan Yavas, SLAC National Accelerator Lab	oratory		
16:45 – 17:10	"Tracing the active atomic sites in photochemistry with soft X-ray resonant inelastic X-ray scattering" Alexander Föhlisch, Helmholtz-Zentrum Berlin für Materialien und Energie	(I-15)		
17:10 – 17:30	"Stimulated X-ray Emission Spectroscopy with hard X-rays" (Thomas Kroll, SLAC National Accelerator Laboratory			
17:30 – 17:55	"Dynamics study in time scales between nano-second and micro-second by quasi-elastic scattering based on synchrotron radiation" Makina Saito, Kyoto University			
17:55 – 18:20	"Nanoscale lattice dynamics probed by extreme ultraviolet transient gratings" Filippo Bencivenga, <i>Elettra Sincrotrone Trieste</i>			
19:00	9:00 Wang Center closes for the evening (Please leave the building by 18:45)			
19:00 – 22:00	Dinner at Hilton Garden Inn, Stony Brook			
	Wednesday, June 26, 2019			
08:00 - 08:30	Breakfast, Check-in and Registration at Wang Center			
[Quantum Mate	erials II] A Session Chair: Tom Devereaux, SLAC National Accelerator Lab	oratory		
08:30 - 09:10	"Charge fluctuations and electron phonon coupling studied by very high resolution RIXS" Giacomo Ghiringhelli, <i>Politecnico di Milano</i>	(P-6)		
09:10 - 09:30	09:10-09:30 "Resonant Inelastic X-ray Scattering on ultrathin FeSe grown on SrTiO ₃ " (C Jonathan Pelliciari, MIT			

09:30 – 09:55	"Evolution of the magnetic excitations in high Tc cuprates" (I-18) Yingying Peng, University of Illinois at Urbana-Champaign		
09:55 – 10:20	"Ubiquitous Charge Density Wave Excitation and Local Commensurability in Underdoped Cuprates" Hu Miao, <i>Brookhaven National Laboratory</i>		
10:20 – 10:50	Coffee Break		
[Quantum Mate	erials II] B Session Chair: Young-June Kim, University of	Toronto	
10:50 – 11:15	"Probing CDW phenomena and charge excitations in cuprates via RIXS" Wei-Sheng Lee, SLAC National Accelerator Laboratory	(1-20)	
11:15 – 11:35	"Direct imaging of orbitals using inelastic X-ray scattering" Hasan Yavas, SLAC National Accelerator Laboratory	(C-11)	
11:35 – 12:00	"Uniaxial pressure control of competing orders in the cuprates" (I-21 Mathieu Le Tacon, Karlsruhe Institute of Technology		
12:00 – 12:25	"High-resolution momentum-resolved RIXS at Taiwan Photon Source" Di-Jing Huang, National Synchrotron Radiation Research Center	(1-22)	
12:25 – 13:45	Lunch and IXS Steering Committee Executive Meeting		
[Novel Instrume	entation & Methods] A Session Chair: Giacomo Ghiringhelli, Politecnico d	li Milano	
13:45 – 14:10	"Resonant Inelastic X-ray Scattering at SIX of NSLS II: An update on the beamline status and its performances" Valentina Bisogni, Brookhaven National Laboratory	(1-23)	
14:10 – 14:35	"High energy resolution RIXS study on orbital ordered KCuF ₃ " (I-24) Ke-Jin Zhou, <i>Diamond Light Source</i>		
14:35 – 15:00	"Opportunities for resonant elastic and inelastic x-ray scattering studies at the SCS instrument at the European XFEL" Justine Schlappa, European XFEL		
15:00 – 15:25	"Soft X-ray scattering instrumentation at LCLS-II" (I-26) Georgi Dakovski, SLAC National Accelerator Laboratory		
15:25 – 15:45	"Double dispersion RIXS (QERLIN) at the ALS" Yi-De Chuang, Lawrence Berkeley National Laboratory (C-12)		
	,	(C-12)	

[Novel Instrume	entation & Methods] B	Session Chair: Simo Huotari, University of	Helsinki	
16:15 – 16:40	"High spectral and focal resolution RIXS with state-of-the-art flat crystal spectrometer" Jungho Kim, Argonne National Laboratory			
16:40 – 17:05	"IRIXS: an intermediate x-ray en Hlynur Gretarsson, <i>DESY</i>	nergy RIXS spectrometer at P01, DESY"	(I-28)	
17:05 – 17:30	"The Inelastic X-ray Scattering I Christoph Sahle, <i>ESRF</i>	beam line ID20 at the ESRF"	(I-29)	
17:30 – 17:55	"Ultrahigh resolution Compton Nozomu Hiraoka, <i>National Syn</i> e	scattering" chrotron Radiation Research Center	(I-30)	
17:55 – 18:20	"Recent Progress in Non-Reson Alfred Baron, RIKEN SPring-8 Co	·	(I-31)	
19:00	Wang Center closes for the eve	ening (Please leave the building by 18:45)		
19:00 – 22:00	Dinner at Hilton Garden Inn, St	ony Brook		
	Thursday,	June 27, 2019		
08:00 - 08:30	08:00 – 08:30 Breakfast, Check-in and Registration at Wang Center			
[Energy Materia	[Energy Materials & Catalysis] A Session Chair: Jun'ichiro Mizuki, Kwansei Gakuin University			
08:30 - 09:10	"A spectroscopic journey into the critical electron states in batteries" (P-7) Wanli Yang, Lawrence Berkeley National Laboratory			
09:10 - 09:30	"Hyperspectral Imaging with X-ray Raman Scattering" (C-13) Jean-Pascal Rueff, Synchrotron SOLEIL			
09:30 – 09:55	"Ex-situ and in-situ scattering and spectroscopic study of oxygen evolution catalysts" Gihan Kwon, Brookhaven National Laboratory			
09:55 – 10:20	 "High-Energy X-ray Compton Scattering for Non-destructive and Quantum Characterization in Batteries" Kosuke Suzuki, Gunma University 			
10:20 – 10:50	Coffee Break			
[Energy Materia	ıls & Catalysis] B	Session Chair: Yoshiharu Sakurai, JASRI,	SPring-8	
10:50 – 11:15	 "The Evolution of Electronic Complexity in Biology: 2p3d and 1s3p RIXS of (I-34) Iron Sulfur Clusters" Serena DeBeer, MPI CEC 			

11:15 – 11: 35	"CF scheme of UO₂ measured with NIXS" (0 Martin Sundermann, <i>University of Cologne</i>		
11:35 – 12:00	"NRIXS studies of halide perovskites" Michael Hu, Argonne National Laboratory		
12:00 – 12:25	"What experiments can we do with 2p3d RIXS?" Frank de Groot, Utrecht University		
12:25 – 13:45	Lunch		
[Soft, Biomateria	als & Extreme Conditions] Session Chair: Jean-Pascal Rueff, Synchrotron	1 SOLEIL	
13:45 – 14:10	"Directional cuts through potential energy surfaces" Annette Pietzsch, Helmholtz Zentrum Berlin	(I-37)	
14:10 – 14:35	"High-resolution Inelastic X-Ray Scattering as a probe of the dynamic in complex and hybrid materials" Alessandro Cunsolo, <i>Brookhaven National Laboratory</i>	(I-38)	
14:35 – 15:00	"Inelastic X-ray scattering at extreme conditions and its geophysical applications" Eiji Ohtani, Tohoku University		
15:00 – 15:25	"New insight into biophysics of lipid membranes with high resolution IXS" Mikhail Zhernenkov, <i>Brookhaven National Laboratory</i>	(1-40)	
15:25 – 16:30	Buses from SBU to BNL for site tour. Anticipate 6 groups in two buses. Bus A (group #1-3) departs @ 15:35, arriving at BNL (NSLS-II/740) @ 16:15 Bus B (group #4-6) departs @ 15:45, arriving at BNL (NSLS-II/740) @ 16:25		
16:30 – 18:00	BNL (NSLS-II/740) tours #1-3 starts from 16:20, ends at 17:50 BNL (NSLS-II/740) tours #4-6 starts from 16:30, ends at 18:00		
18:00 – 19:00	Buses from BNL to Port Jeff, including people not joining banquet. Bus A (group #1-3) departs @ 18:00, arriving at Port Jeff Marina @ 18:40 Bus B (group #4-6) departs @ 18:10, arriving at Port Jeff Marina @ 18:50		
19:00 – 22:00	Conference Banquet @ Danford's Hotel & Marina Jun'ichiro Mizuki, Post-banquet talk Announcement of next IXS conference Music entertainment		
22:00 – 22:30	Buses from Port Jeff to SBU (will leave promptly at 22:00)		

	Friday, June 28, 2019		
08:00 - 08:30	Breakfast, Check-in and Registration at Wang Center		
[Awards]	Session Chair: Ignace Jarrige, Brookhaven National Laboratory		
08:30 – 08:35	Introduction of IXS2019 Poster Awardees and award ceremony Nozomu Hiraoka, <i>National Synchrotron Radiation Research Center</i>		
08:35 – 09:35	4 poster award talks each 15 mins		
09:35 – 09:40	Introduction of IUCr Young Scientist Awardees and award ceremony Yong Cai, <i>Brookhaven National Laboratory</i>		
09:40 – 10:00	"Thermal acoustic excitations with atomic scale wavelengths in amorphous silicon" Jaeyun Moon, <i>Caltech</i>		
10:00 – 10:20	"Tracking Collective Spin and Charge Excitations through Time-Resolved (YSA-2) Raman and RIXS Spectra" Yao Wang, Harvard Institute		
10:20 - 10:50	Coffee Break		
10.20 - 10.50	Conee Break		
[Future of IXS]	Session Chair: John Hill, Brookhaven National La	boratory	
		(P-8)	
[Future of IXS]	Session Chair: John Hill, Brookhaven National La "New developments in Inelastic X-ray Scattering at the Advanced Photon Source"	,	
[Future of IXS] 10:50 – 11:30	Session Chair: John Hill, Brookhaven National La "New developments in Inelastic X-ray Scattering at the Advanced Photon Source" Thomas Gog, Argonne National Laboratory "IXS Opportunities offered by High Repetition Rate X-ray Free Electron Lasers"	(P-8)	
[Future of IXS] 10:50 - 11:30 11:30 - 12:10	"New developments in Inelastic X-ray Scattering at the Advanced Photon Source" Thomas Gog, Argonne National Laboratory "IXS Opportunities offered by High Repetition Rate X-ray Free Electron Lasers" Chi-Chang Kao, SLAC National Accelerator Laboratory "IXS2019 Summary & Next IXS Conference"	(P-8)	
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[Future of IXS] $10:50 - 11:30$ $11:30 - 12:10$ $12:10 - 12:40$ $12:40 - 13:45$	"New developments in Inelastic X-ray Scattering at the Advanced Photon Source" Thomas Gog, Argonne National Laboratory "IXS Opportunities offered by High Repetition Rate X-ray Free Electron Lasers" Chi-Chang Kao, SLAC National Accelerator Laboratory "IXS2019 Summary & Next IXS Conference" Arun Bansil, Northeastern University Lunch (boxed to go), Conference Adjourn Bus to Vineyard	(P-8)	

Poster Presentation List

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PT-2	Asakura, Daisuke	National Institute of Advanced Industrial Science and Technology	Operando RIXS studies of electrode materials for Li-ion batteries to under-stand the redox reactions
PT-3	Asakura, Kiyotaka	Hokkaido University	Evidence for MARK-Raman (Multi Atom Resonance X-ray Raman)
PT-4	Betto, Davide	Max Planck Institute for Solid State Physics	Bimagnon tail in the magnetic excitations of Sr ₂ CuO ₂ Cl ₂ and La ₂ CuO ₄
PT-5	Caliebe, Wolfgang	Deutsches Elektronen Synchrotron (DESY)	Options for Inelastic X-ray Scattering at PETRA IV
PT-6	Dashwood, Cameron	University College London	Momentum-resolved lattice dynamics of parent and electron-doped Sr ₂ IrO ₄
PT-7	De La Rosa, Angel	The University of Texas at El Paso	Fabrication of Single Perovskite Solar Cells and Projection to Increase Voc via SnO ₂ Experimentation
PT-8	Dziarzhytski, Siarhei	Deutsches Elektronen Synchrotron (DESY)	Time-resolved high-resolution resonant inelastic soft X-ray scattering at the 3d transition metal M-edge: the NiO case
PT-9	Elbers, Mirko	Technische Universität Dortmund/DELTA	Combining x-ray emission and x-ray Raman spectroscopy for the study of Earth materials at high pressure and high temperature
PT-10	Elbers, Mirko	Technische Universität Dortmund/DELTA	X-ray Raman scattering study of hydrothermal fluids: The case of aqueous sodium chloride solutions
PT-11	Elnaggar, Hebatalla	Utrecht University	Trimeron correlations above the Verwey temperature in Magnetite?
PT-12	Elnaggar, Hebatalla	Utrecht University	Magnetic contrast at spin-flip excitations: An advanced X-ray tool to study magnetic-ordering
PT-13	Elnaggar, Hebatalla	Utrecht University	Non-collinear ordering of the magnetic orbital moments in magnetite
PT-14	Fritsch, Katharina	Helmholtz-Zentrum Berlin	PEAXIS – The new RIXS and XPS endstation at BESSY II

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PT-16	Gilmore, Keith	Brookhaven National Laboratory	Probing the RIXS Raman-to-fluorescence crossover in BaFe ₂ As ₂
PT-17	Gopinath, David	XCAM Ltd	The first experimental measurements of in- house X-ray resolution tests on a RIXSCam
PT-18	Guo, Meiyuan	Lund University	Ab initio simulation of 1s2p resonant inelastic X-ray scattering spectroscopy
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PT-21	Hoesch, Moritz	Deutsches Elektronen Synchrotron (DESY)	Lattice dynamics evidence for a structural instability involving the conduction electrons in the unconventional superconductor K ₂ Cr ₃ As ₃
PT-22	Huang, Hsiao-Yu	National Synchrotron Radiation Research Center	Spin fluctuations of multiferroic collinear magnet Fe₂Mo₃O ₈ revealed by RIXS
PT-23	Ishii, Kenji	National Institutes for Quantum and Radiological Science and Technology	Spin excitations in La _{2-x} Sr _x CuO ₄ : comparison of temperature dependence between RIXS and INS
PT-24	Jin, Wentao	University of Toronto	RIXS Study of uniaxially strained Sr ₂ IrO ₄
PT-25	John Mukkattukavil, Deepak	Uppsala University	RIXS investigations correlated electron materials at high-resolution beamlines
PT-26	Kalinko, Aleksandr	Paderborn University	High resolution hard x-ray spectroscopy at PETRA III beamline P64
PT-27	Kim, Jinkwang	Institute for Basic Science	Flat-crystal based Resonant Inelastic X-ray Scattering Spectrometer for Measurements under High Pressure
PT-28	Kumar, Umesh	University of Tennessee	Accessing fractionalized quasiparticle excitations in one-dimensional antiferromagnets using resonant inelastic x-ray scattering
PT-29	Kummer, Kurt	European Synchrotron Radiation Facility	RixsToolBox – An open source software for the analysis of RIXS data acquired with 2D position sensitive detectors

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PT-33	Leedahl, Brett	Max Planck Institute for Chemical Physics of Solids	The Origin of Ising Magnetism in Ca₃O₂O ₆ Unveiled by Orbital Imaging
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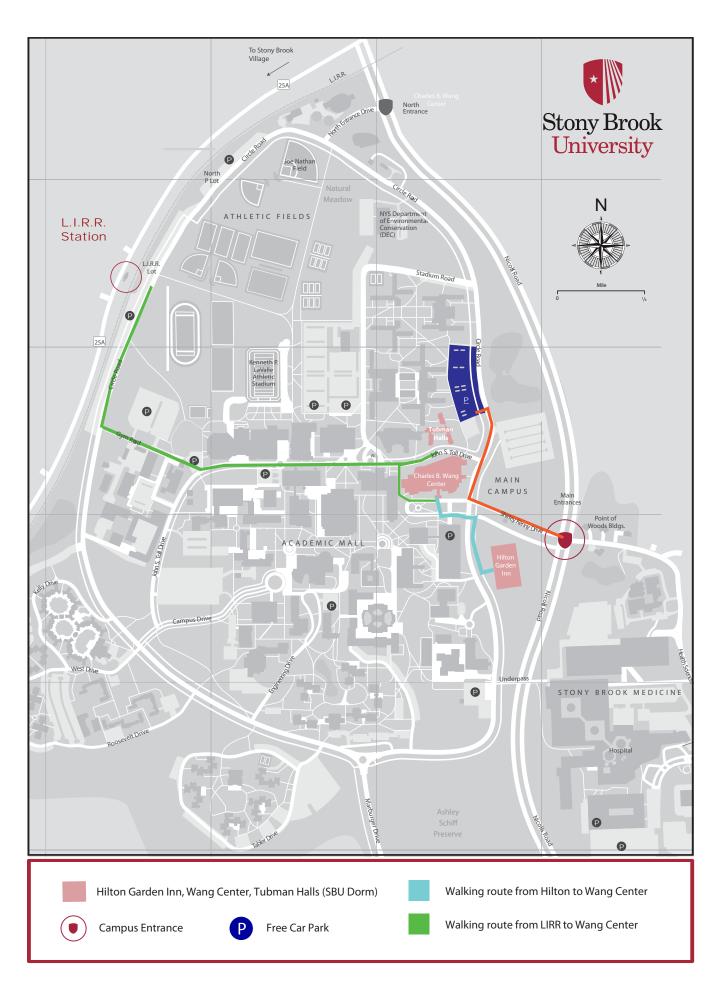
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