



*Capturing the Light of Science & Innovation*

Marriott Marquis | New York City  
Times Square | July 6-10, 2015



## Conference Program

**BROOKHAVEN**  
NATIONAL LABORATORY



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science





## *Capturing the Light of Science & Innovation*

The 12th International Conference on Synchrotron Radiation Instrumentation brings together foremost scientists and engineers from around the world to share innovations in the most cutting-edge instrumentation, technology and methodologies, as well as novel research and development that drive the rapid advances in the field of synchrotron and free-electron-laser light sources worldwide.

Hosted by the National Synchrotron Light Source (NSLS-II), the scientific program at SRI 2015 features over 150 invited and contributed oral presentations in plenary and parallel sessions on key areas of synchrotron science: Materials Science, Optical & Accelerator Systems, Biology, Nanoprobe & Imaging, Detectors, Ultrafast Chemistry, Coherent & Inelastic Methods, New Facilities, Time-Resolved Methods, Soft X-Rays, Big Data, and Modeling.

The weeklong conference includes a comprehensive poster and exhibition session with ample opportunities to discuss and mingle with colleagues from facilities and industry, and a trip to Long Island for a grand tour of the newest synchrotron in the world – NSLS-II.



# Schedule at a Glance

	Sun. 7/5	Mon. 7/6	Tuesday, July 7	Wednesday, July 8	Thursday, July 9	Friday, July 10	
8:00 AM			Exhibition Hall and Poster Setup West Side Ballroom, 5th Floor	Poster Setup West Side Ballroom, 5th Floor	Poster Setup West Side Ballroom, 5th Floor		
8:15 AM			Welcome & Introduction Broadway Ballroom, 6th Floor				
8:30 AM			Keynote Broadway Ballroom, 6th Floor	Keynote Broadway Ballroom, 6th Floor	Plenary Sessions Broadway Ballroom, 6th Floor	Plenary Sessions Broadway Ballroom, 6th Floor	
8:45 AM							
9:15 AM			Plenary Sessions Broadway Ballroom, 6th Floor	Plenary Sessions Broadway Ballroom, 6th Floor	Plenary Sessions Broadway Ballroom, 6th Floor	Plenary Sessions Broadway Ballroom, 6th Floor	
9:30 AM							
10:15 AM			Coffee & Tea Break West Side Ballroom, 5th Floor	Coffee & Tea Break West Side Ballroom, 5th Floor	Coffee & Tea Break West Side Ballroom, 5th Floor	Coffee & Tea Break West Side Ballroom, 5th Floor	
10:30 AM							
10:45 AM							
11:00 AM							
			Tue-A N. Broadway Ballroom, 6th Floor	Wed-A Majestic Complex, 6th Floor	Thu-A N. Broadway Ballroom, 6th Floor	Fri-A Majestic Complex, 6th Floor	
			Tue-B Majestic Complex, 6th Floor	Wed-B N. Broadway Ballroom, 6th Floor	Thu-B Majestic Complex, 6th Floor	Fri-B N. Broadway Ballroom, 6th Floor	
			Tue-C S. Broadway Ballroom, 6th Floor	Wed-C S. Broadway Ballroom, 6th Floor	Thu-C S. Broadway Ballroom, 6th Floor	Fri-C S. Broadway Ballroom, 6th Floor	
			Tue-D Shubert Complex, 6th Floor	Wed-D Shubert Complex, 6th Floor	Thu-D Shubert Complex, 6th Floor	Fri-D Shubert Complex, 6th Floor	
12:00 PM			Lunch Break On Your Own	Lunch Break On Your Own	Lunch Break On Your Own	Lunch Break On Your Own	
12:45 PM			Poster Session and Exhibition West Side Ballroom, 5th Floor	Poster Session and Exhibition West Side Ballroom, 5th Floor	Poster Session and Exhibition West Side Ballroom, 5th Floor	Exhibition West Side Ballroom, 5th Floor	
1:00 PM							
			Tue-E N. Broadway Ballroom, 6th Floor	Wed-E Majestic Complex, 6th Floor	Thu-E N. Broadway Ballroom, 6th Floor	Fri-E Majestic Complex, 6th Fl.	
			Tue-F Majestic Complex, 6th Floor	Wed-F N. Broadway Ballroom, 6th Floor	Thu-F Majestic Complex, 6th Floor	Fri-F/G Broadway Ballroom, 6th Fl.	
			Tue-G S. Broadway Ballroom, 6th Floor	Wed-G S. Broadway Ballroom, 6th Floor	Thu-G S. Broadway Ballroom, 6th Floor	Fri-H Shubert Complex, 6th Floor	
			Tue-H Shubert Complex, 6th Floor	Wed-H Shubert Complex, 6th Floor	Thu-H Shubert Complex, 6th Floor		
2:30 PM			Closing Session Broadway Ballroom, 6th Floor				
4:10 PM			Poster Session and Exhibition West Side Ballroom, 5th Floor	Poster Session and Exhibition West Side Ballroom, 5th Floor	Poster Session and Exhibition West Side Ballroom, 5th Floor		
4:30 PM							
5:00 PM							
6:00 PM							
6:30 PM				Free Evening			
7:00 PM			Free Evening	International Advisory Council Dinner (IAC Members Only) Ziegfeld Room, 4th Floor	Banquet Dinner Broadway Ballroom, 6th Floor		

Registration Desk Open  
Marriott Marquis, 5th Floor

Vendor Registration & Exhibition Hall Setup | West Side Ballroom, 5th Floor

NSLS-II Tour

Poster Setup  
W. S. Blinn, 5th Fl.

Welcome Reception  
The Broadway Lounge, 8th Floor

Schedule at a Glance

# Welcome

On behalf of the hosting facility, the National Synchrotron Light Source II, we warmly welcome you to the 12th International Conference on Synchrotron Radiation Instrumentation (SRI 2015). Taking place in New York City, this triennial conference is the prime forum in our community to highlight connections among cutting-edge instrumentation, science, and society.

With 14 invited keynote and plenary lectures and more than 600 contributed oral and poster presentations, the 2015 SRI Conference has an exciting program designed to foster discussion around the latest innovations in instrumentation, engineering, and techniques and methodologies with applications in materials discovery, energy and earth science, nanotechnology, and biology.

Topics range from new developments in materials and biological applications to novel instrumentation in X-ray optics, detectors, insertion devices and beamlines, as well as recent activities in data acquisition and big data management. In addition, two sessions focused on new facilities will provide status updates from newly constructed or significantly modified light source facilities as well as from those under construction. A comprehensive exhibition program will showcase cutting-edge technology and equipment by a large group of vendors in the synchrotron instrumentation business.

It is a true privilege to gather together and share our work and our passion for synchrotron science and engineering. We owe many thanks to those who made this conference possible, including all members of the International Advisory Committee, the Scientific Program Committee, and the Local Organizing Committee. We recognize our sponsors, supporting organizations and exhibitors for their generous support. A listing of all conference supporters is contained in this handbook.

We wish everyone a great conference and a great stay in the city of New York.

Steve Dierker  
*Chair, International Advisory Committee*  
SRI 2015

John Hill  
*Director, NSLS-II*

Qun Shen  
*Chair, Scientific Program Committee/Local Organizing Committee*  
SRI 2015

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# Committees

## International Advisory Committee

Steve Dierker (Chair): *NSLS-II, Brookhaven National Laboratory, USA*  
 Caterina Biscari: *ALBA, Spain*  
 Roger Falcone: *ALS, Lawrence Berkeley National Laboratory, USA*  
 Tilo Baumbach: *ANKA, Germany*  
 Stephen Streiffer: *APS, Argonne National Laboratory, USA*  
 Andrew Peele: *Australian Synchrotron, Australia*  
 Anke Kaysser-Pyzalla: *BESSY, Germany*  
 Joel Brock: *CHESS, USA*  
 Robert Lamb: *Canadian Light Source, Canada*  
 Metin Tolan: *DELTA, Germany*  
 Andrew Harrison: *Diamond Light Source, UK*  
 Alfonso Franciosi: *ELETTRA, Italy*  
 Francesco Sette: *ESRF, France*  
 Edgar Weckert: *HASYLAB/Petra-III, Germany*  
 Masaki Taniguchi: *Hiroshima Synchrotron Radiation Center, Japan*  
 P.D. Gupta: *INDUS, India*

Youichi Murakami: *KEK, Japan*  
 Mike Dunne: *LCLS, SLAC National Accelerator Laboratory, USA*  
 Antonio José Roque da Silva: *LNLS, Brazil*  
 Christoph Quitmann: *MAXLAB, Sweden*  
 Gerhard Ulm: *Metrology Light Source, Germany*  
 Ziyu Wu: *NSRL, China*  
 S. L. Chang: *NSRRC, Taiwan*  
 M. H. Cho: *Pohang Light Source, Korea*  
 Sarawut Sujitjorn: *SLRI, Thailand*  
 Gabriel Aeppli: *Swiss Light Source, Switzerland*  
 Jean Dailant: *SOLEIL, France*  
 Tetsuya Ishikawa: *SPring-8/SACLA, Japan*  
 Zhentang Zhao: *SSRF, China*  
 Kelly Gaffney: *SSRL, SLAC National Accelerator Laboratory, USA*  
 Uwe Arp: *Synchrotron Ultraviolet Radiation Facility, USA*  
 Nobuhiro Kosugi: *UVSOR Synchrotron Facility, Japan*  
 Massimo Altarelli: *XFEL, Germany*

## Scientific Program Committee

Qun Shen (Chair): *NSLS-II, Brookhaven National Laboratory, USA*  
 Shinichi Adachi: *Institute of Materials Structure Science and KEK, Japan*  
 Uwe Arp: *Synchrotron Ultraviolet Radiation Facility, USA*  
 Uwe Bergmann: *LCLS, SLAC National Accelerator Laboratory, USA*  
 Oliver Bunk: *Swiss Light Source, Switzerland*  
 Tom Ellis: *Canadian Light Source, Canada*  
 Alexander Föhlisch: *BESSY, Germany*  
 Alfonso Franciosi: *ELETTRA, Italy*  
 Miguel Angel Garcia Aranda: *ALBA, Spain*  
 Shangjr "Felix" Gwo: *NSRRC, Taiwan*  
 Jianhua He: *Shanghai Synchrotron Radiation Facility, China*  
 Britt Hedman: *SSRL, SLAC National Accelerator Laboratory, USA*  
 Michael James: *Australian Synchrotron, Australia*  
 C-Y. Yu: *Pohang Light Source, Korea*  
 Nobuhiro Kosugi: *UVSOR Synchrotron Facility, Japan*  
 G.S. Lodha: *INDUS, India*

Howard Padmore: *ALS, Lawrence Berkeley National Laboratory, USA*  
 Anton Plech: *ANKA, Germany*  
 Christoph Quitmann: *MAXLAB, Sweden*  
 Trevor Rayment: *Diamond Light Source, UK*  
 Christian Schroer: *HASYLAB/Petra-III, Germany*  
 Kenya Shimada: *Hiroshima Synchrotron Radiation Center, Japan*  
 Jean Susini: *ESRF, France*  
 Masaki Takata: *SACLA/SPring-8, Japan*  
 Andrew Thompson: *SOLEIL, France*  
 Metin Tolan: *DELTA, Germany*  
 Thomas Tschentscher: *XFEL, Germany*  
 Somchai Tuncharakorn: *SLRI, Thailand*  
 Gerhard Ulm: *Physikalisch-Technische Bundesanstalt, Germany*  
 Harry Westfahl: *LNLS/CNPEM, Brazil*  
 Arthur Woll: *CHESS, USA*  
 Ziyu Wu: *NSRL, China*  
 Linda Young: *APS, Argonne National Laboratory, USA*

## Local Organizing Committee, National Synchrotron Light Source II

Qun Shen, Conference Chair  
 Gretchen Cisco, Conference Coordinator  
 Dario Arena  
 Andrew Broadbent  
 Steve Hulbert  
 Mourad Idir  
 Ignace Jarrige  
 Sean McSweeney  
 Lisa Miller  
 Christie Nelson  
 Ronald Pindak

Mona Rowe  
 Timur Shaftan  
 John Smedley  
 Tammy Stein  
 Oleg Tchoubar  
 Ryan Tappero  
 Juergen Thieme  
 Jun Wang  
 Chelsea Whyte  
 Nancye Wright  
 Paul Zschack

# General Information

## Emergency Assistance

In case of emergency, please dial 911, or contact security from any in-house phone at ext. 6666 or 212-704-8842 and inform them of the situation.

## Registration and Information Desk

The Registration and Information Desk is located on the 5th Floor and is operational during the following hours:

**Sunday, July 5:** 12:00 PM - 6:00 PM

**Monday, July 6:** 7:00 AM - 6:00 PM

**Tuesday, July 7:** 7:00 AM - 6:00 PM

**Wednesday, July 8:** 7:00 AM - 6:00 PM

**Thursday, July 9:** 7:00 AM - 6:00 PM

**Friday, July 10:** 7:00 AM - 2:00 PM

**Registration Desk phone number:** 212-536-4994

## Smoking Policy

The New York Marriott Marquis is a non-smoking venue.

## Name Badges & Security

All delegates will receive a name badge upon registration. This badge is the official pass and must be worn to obtain entry to all Conference sessions, the Exhibit Hall, and social events. If you have pre-registered for the Banquet Dinner, you will find a ticket required for entry included in your delegate welcome pack.

## Coat Room

The coat room is on the 5th Floor, near the Registration Desk.

## Dietary Requirements

Please see the registration desk if you have any special dietary requirements. We will do our best to accommodate your needs.

## Banking Facilities

ATMs are located on the 1st Floor near the Starbucks.

## Internet Access

Wi-Fi is available in the conference meeting rooms, sponsored by the SRI Conference. See your conference badge for the Wi-Fi password in these areas. Wi-Fi is also available in public areas on the 8th Floor, including the Atrium, Hotel Lobby, and Broadway Lounge.

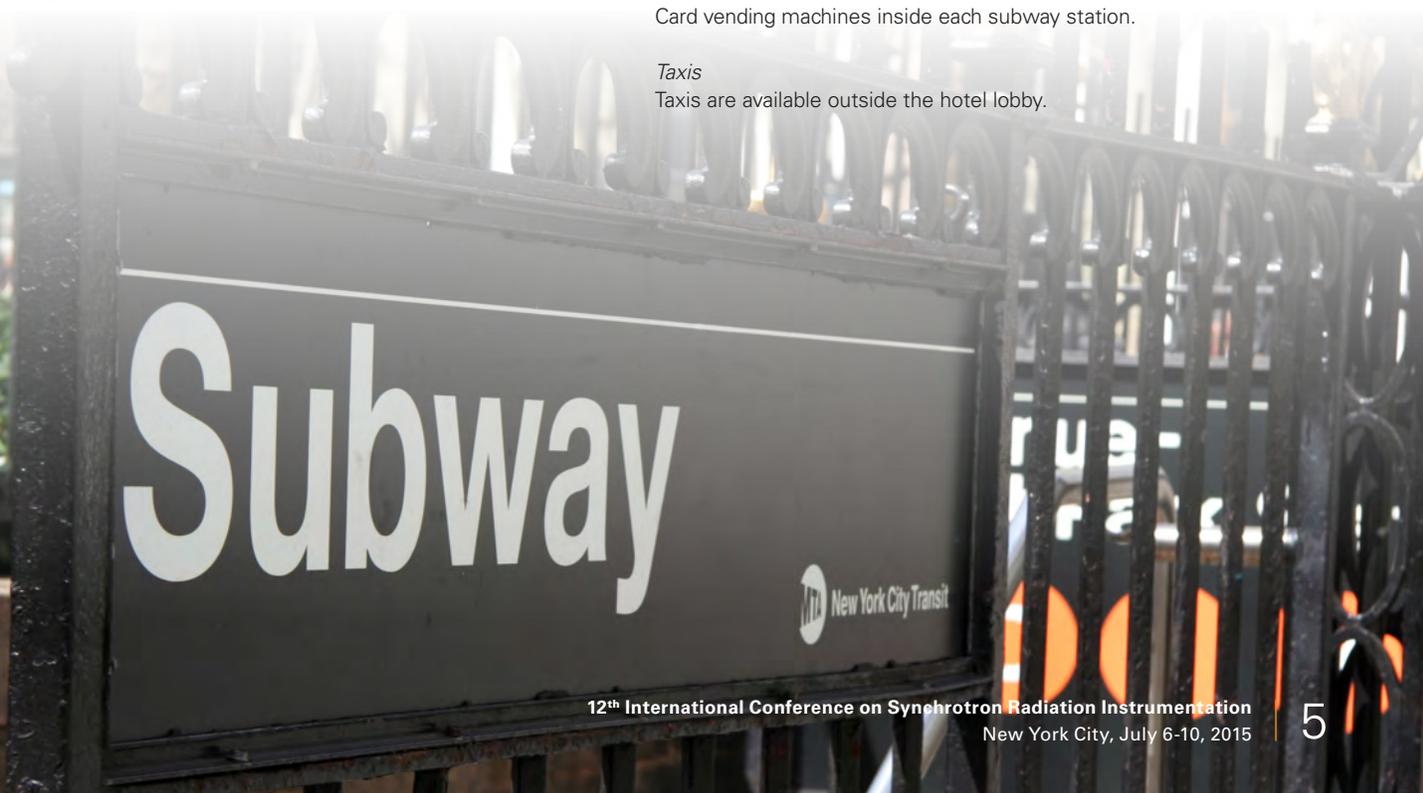
## Public Transit

### *Subway*

The Marriott Marquis is located 3 blocks south of the 49th Street subway station, located at W 48th Street and 7th Avenue, which provides access to the N,Q,R trains. Nearby subway stations also include the 50th Street station with access to the 1 train, and the 42nd Street Port Authority station, with access to the A,C,E trains. Single ride tickets are \$2.75, and 7-day unlimited passes are \$31.00. Both can be purchased at Metro-Card vending machines inside each subway station.

### *Taxis*

Taxis are available outside the hotel lobby.



Subway



# Exhibition

## Exhibitors

### Exhibitor

### Booth



Advanced Design Consulting

101



**Agilent Technologies**

Agilent Vacuum

208

**AIP** | Review of  
Scientific Instruments

AIP Publishing

317



Anest Iwata Air Engineering

304



Applied Diamond, Inc.

302



Attocube systems Inc.

412



AXILON AG

117



BESTEC GmbH

514

## Exhibition Location

The Exhibition Hall is located on the 5th Floor in the West Side Ballroom.

## Exhibition Hours

### Booth setup:

**Monday, July 6:** 11:00 AM – 6:00 PM

### Exhibition open:

**Tuesday, July 7:** 8:30 AM – 6:00 PM

**Wednesday, July 8:** 8:30 AM – 6:00 PM

**Thursday, July 9:** 8:30 AM – 6:00 PM

**Friday, July 10:** 8:30 AM – 2:00 PM

### Booth dismantle:

**Friday, July 10:** 2:00 PM – 5:00 PM

### Exhibitor

### Booth



Canberra

107



**CARATELLI**

CARATELLI

301



ColdEdge

111



COSMOTEC, Inc.

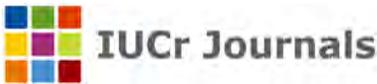
205



Dectris Ltd.

103/105

Exhibitor	Booth	Exhibitor	Booth
 Edwards Vacuum	403	 Hitachi Metals, Ltd.	106
 Elsevier	116	 HORIBA Scientific	307
 Ferrovac GmbH	110	 Huber Diffraction	314
 FMB Berlin	417	 Hummingbird Scientific	409
 FMB Oxford	415	 lbss Group, Inc.	212
 GMW Associates	216	 ImXPAD SAS	217
 Hamamatsu Corporation	308	 Incoatec GmbH	102
 Helmholtz Zentrum Berlin	500	 Inprentus	305
 Hiden Analytical, Inc.	404	 Instrument Design Technology Ltd.	108

Exhibitor	Booth	Exhibitor	Booth
 InSync, Inc.	202	 MB Scientific AB	215
 IRELEC	414	 Metal-Flex Welded Bellows, Inc.	312
 IUCr Journals	315	 MEWASA AG	502
 JJ X-Ray	416	 MICRONIX USA / Symetrie	402
 JTEC Corporation	406	 Okazaki	504
 Kashiyama USA	206	 Phytron Inc.	311
 Kepco, Inc.	209	 PI (Physik Instrumente) LP	104
 Kyma Srl	400	 Pro-Dex, OMS	303
 Lebow Company	506	 Quantum Detectors	316

Exhibitor	Booth	Exhibitor	Booth
 Rayonix L.L.C.	512	 SPECS Surface Nano Analysis, Inc.	407
 Research Detectors LLC	207	 Strumenti Scientifici CINEL s.r.l.	201
 RI Research Instruments GmbH	516	 Sydor Instruments	204
 Rigaku Innovative Technologies, Inc.	510	 Toyama Co., Ltd.	100
 SAES Getters USA Inc.	115	 XEI Scientific, Inc.	408
 Sigray, Inc.	309	 XIA LLC	401
 SGX Sensortech (MA) Ltd.	214	 X'scitech Oy Finland	114
 SHIMADZU Corporation	300	 X-Spectrum GmbH	413
 SmarAct Inc.	203	 Zurich Instruments AG	411

# Social Program & Synchrotron Tour

## National Synchrotron Light Source II Tour

**Where:** Brookhaven National Laboratory, Upton, NY

**Date:** Monday, July 6

**Time:** Leave Marriott Marquis, NYC, 8:30 - 9:00 AM

Begin the SRI 2015 Conference with a tour of the world's newest synchrotron, the National Synchrotron Light Source II. Conference delegates and registered guests are invited to enjoy a tour of the facility, and talk with beamline groups and accelerator staff. The tour includes bus travel to and from NSLS-II and a traditional American barbecue lunch served at the facility. You must be registered for the tour before boarding the bus. Sign up at the Registration Desk on the 5th Floor.

## Welcome Reception

**Where:** The Broadway Lounge, Marriott Marquis, 8th Floor

**Date:** Monday, July 6

**Time:** 6:00 PM

**Cost:** Included for all registration types

**Additional Tickets:** Unregistered guests may attend.

Guest tickets are \$50 and may be purchased at the Registration Desk.

The Welcome Reception will be held in the Broadway Lounge at the Marriott Marquis and will include passed hors d'oeuvres. Renew old friendships and make new acquaintances as we welcome you to New York City.

## Banquet Dinner

**Where:** Broadway Ballroom, 6th Floor

**Date:** Thursday, July 9

**Time:** 7:00 PM

**Cost:** \$65 per person

**Additional Tickets:** Unregistered guests may attend.

Guest tickets are \$65 and may be purchased at the Registration Desk until Tuesday, July 7.

The Banquet Dinner will be held in the Broadway Ballroom at the Marriott Marquis. Join your colleagues for the social highlight of the Conference, including an after-dinner keynote speech. If you pre-registered for the conference dinner, you will find a dinner ticket included in your registration materials. If you would like to register for the dinner during the conference or purchase a ticket for a guest, visit the Registration Desk. Please remember to bring your dinner ticket with you to the event.

## International Advisory Committee Dinner

**Where:** Ziegfeld Room, 4th Floor

**Date:** Wednesday, July 8

**Time:** 7:00 PM

The International Advisory Committee Dinner is by invitation only for IAC Members.



# Sponsored Events

Tuesday, July 7

## Lunch Round-Table: Industry Research and Technology Entrepreneurship

Broadway Ballroom, 6th Floor, 1:00 PM – 2:15 PM  
Sponsored by Sigray, Inc., Brookhaven National Laboratory, and Cornell University

This lunchtime Round-Table will focus on two evolving connections between light sources and industry: industrial use of light source facilities for R&D and the resulting impact on society, and technological innovation and entrepreneurship. After descriptions and discussions of industry research by facility industry program managers, Dr. Wenbing Yun, founder and President of Sigray, Inc. and former President of Xradia, Inc., will give the keynote speech, *From R&D to High-Tech Startup: Experience, Lessons, and Suggestions*. Limited bag lunches will be provided on a first come, first served basis.

## Evening Reception

Broadway Ballroom, 6th Floor  
5:30 PM – 7:30 PM  
Sponsored by the International Union of Crystallography and DECTRIS

Wine and cheese reception by invitation only. Please visit the International Union of Crystallographers booth (#315) in the Exhibition Hall for tickets and more details.

Wednesday, July 8

## Invited Lunch and Company Presentation

Broadway Ballroom, 6th Floor, 1:00 PM – 2:00 PM  
Sponsored by DECTRIS

Company presentation and luncheon by invitation only. Please visit the DECTRIS booths (#103/105) in the Exhibition Hall for tickets and more details.

# Sponsors

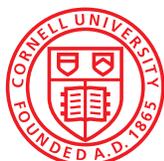
Conference Lanyards and Company Presentations sponsored by:



Conference Bags sponsored by:



Additional Sponsors:



**NSLS-II**  
Users' Executive Committee

# Awards

## Kai Siegbahn Prize

### **About the Award:**

The Prize was established in 2009 in honor of Kai Siegbahn, founder of *Nuclear Instruments and Methods A*, who had a strong and lasting commitment to advancing synchrotron radiation science.

The Prize is awarded every three years and aims to recognize and encourage outstanding experimental achievement in synchrotron radiation research with a significant component of instrument development. Particular preference is given to the development of synchrotron radiation spectroscopies.

The 2015 award will be announced at the 12th International Synchrotron Radiation Instrumentation Conference. The presentation of the 2015 award and the prize lecture will be hosted by Uppsala University and will take place in the Kai Siegbahn Lecture Hall in autumn 2015.

### **Previous Recipients:**

Eli Rotenberg from the Lawrence Berkeley National Laboratory in the USA received the prize in 2009 for the creation of the ARPES "Electronic Structure Factory" end-station at the Advanced Light Source and its artful application to the understanding of quantum electronic properties of nano-phase and reduced dimensionality materials.

Claudio Masciovecchio from the Elettra Synchrotron Light Laboratory in Italy was awarded the prize in 2012 for combining the development of new instrumental facilities based on light scattering concepts, both on the ELETTRA storage ring and at FERMI@Elettra free electron laser, reporting results of significant value in the field of dynamics of disordered matter, bio-protector materials, and nanostructured materials.

## SRI2015 YES Award

### **About the Award:**

The Young Engineer/Scientist Award will be given to the best engineering poster written by a junior engineer or scientist. The recipient will be presented with a cash award at the 12th International Conference on Synchrotron Radiation Instrumentation. The competition is open to any engineer or scientist who graduated with their Bachelor's degree after the end of December 2005. The engineer or scientist may be employed by a synchrotron facility, institution, university, or a commercial company.

Judging will take place at the three poster sessions of the conference on Tuesday -Thursday, July 7-9, and the award will be presented at the Banquet Dinner on Thursday, July 9.

## Student Travel Awards

### **About the Award:**

The goal of the 2015 SRI Student Travel Award is to increase the number of students attending the Synchrotron Radiation Instrumentation (SRI) conference. The program offers graduate students the opportunity to hear about the latest developments in synchrotron science, engineering, and instrumentation and to meet and interact with synchrotron researchers from all over the world.

The SRI 2015 Student Travel Award is sponsored by the SRI 2015 Conference and the NSLS-II Users' Executive Committee, and provides up to \$1,000 to assist with registration, housing, and/or airfare.

## Invited Speakers

The SRI 2015 Scientific Program Committee is pleased to announce the following speakers to present cutting-edge material in their field.

### Keynote Speeches

Henry Chapman, *DESY*

Wednesday Keynote: Serial Crystallography at Free-Electron Laser and Synchrotron Light Sources

Matthew Miller, *Cornell University*

Tuesday Keynote: Understanding the Crystal Scale Performance of Structural Materials

### Plenary Presentations

Nick Brookes, *ESRF*

Friday Plenary: Synchrotron Research using Soft X-ray Resonant Inelastic Scattering

Shunsuke Nozawa, *KEK*

Thursday Plenary: Direct Observation of Bond Formation by Femtosecond X-ray Solution Scattering

Yong Chu, *NLSLS-II*

Wednesday Plenary: The New Nanoprobe for Hard X-rays

Dilworth Parkinson, *ALS*

Friday Plenary: Real-time Data-Intensive Computing

Ana Diaz, *PSI*

Thursday Plenary: Development of Ptychographic Tomography for Scientific Applications

Eva Pereiro, *ALBA*

Wednesday Plenary: Cryo Soft X-ray Tomography for Elucidating Pathogen-Cellular Interactions

Mikael Eriksson, *MAX IV*

Thursday Plenary: The Multi-Bend Achromat Storage Rings

Daniel Ratner, *SLAC National Accelerator Laboratory*

Thursday Plenary: Seeded Free-Electron Lasers and Applications

Alexander Föhlisch, *Helmholtz-Zentrum Berlin*

Friday Plenary: Implications of Adding the Dimension of Time and Stimulated Processes to Science with X-rays

Gopal Shenoy, *APS*

Friday Plenary: Measuring the Pathways to Complex Matter Far-From-Equilibrium: Development of Synchrotron X-ray Spatiotemporal Tools

Ho-kwang Mao, *HP-STAR*

Tuesday Plenary: Materials Discovery at High Pressures in Earth and Energy Sciences

Masaki Takata, *Tohoku University*

Tuesday Plenary: Industry Research Program at SPring-8

## Conference Proceedings

The proceedings of SRI2015 will appear in the American Institute of Physics (AIP) Conference Proceedings.

AIP Conference Proceedings currently contain over 100,000 articles published in 1,600+ proceedings, and is growing by 100 volumes every year. The AIP Conference Proceedings are currently indexed in Web of Science, Scopus and Inspec, among others. All manuscripts submitted for the SRI 2015 Proceedings will be peer-reviewed and all accepted manuscripts will be fully citable and upon publication will be free to download (open access). Printed copies will be available after publication upon request (additional charges apply).

All manuscripts must be submitted via the AIP's Peer XPress (PXP) web-based system. The maximum length for manuscripts (including figures and references) is 8 pages for invited talks, and 4 pages for contributed talks and posters. Manuscript submissions will be accepted until July 24, 2015. Please see [www.bnl.gov/sri2015/proceedings.php](http://www.bnl.gov/sri2015/proceedings.php) for more details.

# Oral Presentation Authors

Speaker	Presentation Title	Session
P. Abbamonte, <i>University of Illinois at Urbana-Champaign</i>	Intermediate-Energy X-ray Beamline for Soft X-Ray Scattering and Photoemission at the APS	Tue-A
S. Adachi, <i>KEK</i>	Capturing Structural Dynamics of Photocatalyst by Picosecond X-ray Pulses	Fri-B
M. Amati, <i>Elettra</i>	Towards Ambient Pressure in the Micro- and Nano-materials Characterization by Scanning Photoemission Imaging and Spectromicroscopy	Tue-C
M. Antonelli, <i>Elettra</i>	Fast Multi-Wavelength Photon Detector Based on Quantum Well Devices and Charge-Integrating Electronics for Non-Invasive FEL Monitoring	Tue-D
B. Basse, <i>University of Saskatchewan</i>	Multiple Energy Synchrotron Biomedical Imaging System	Wed-D
S. Bauer, <i>ANKA</i>	In Operando Study of the High-Voltage Spinel Cathode Material $\text{LiNi}_0.5\text{Mn}_1.5\text{O}_4$ Using Two Dimensional Full-field Spectroscopic Imaging of Ni and Mn Within 40 nm Resolution	Tue-G
T. Baumbach, <i>ANKA</i>	X-ray Imaging for Spatiotemporally Resolved Studies of Micro-structure Evolution during Technological and Biological Processes	Wed-C
P. Baumgaertel, <i>Helmholtz-Zentrum Berlin</i>	RAY-UI: A Powerful and Extensible User Interface for RAY	Fri-A
F. Beckmann, <i>Helmholtz-Zentrum Geesthacht</i>	High-throughput Microtomography using Synchrotron Radiation at DESY	Wed-G
A. Bergamaschi, <i>PSI</i>	Perspectives in High Resolution, Energy Dispersive and Soft X-ray Imaging using MÖNCH	Wed-A
S. Berujon, <i>ESRF</i>	Combined Dry Plasma-etching and Online at-Wavelength Metrology for Manufacturing Highly-focusing X-ray Mirrors	Tue-B
G. Blaj, <i>SLAC National Accelerator Laboratory</i>	LCLS-II Detector Roadmap	Thu-B
C.E. Blanchet, <i>EMBL Hamburg</i>	Highly Automated Solution SAXS at EMBL Hamburg	Thu-D
J. Bohon, <i>Case Western Reserve University</i>	Development of the XFP Beamline for X-ray Footprinting at NSLS-II	Wed-D
N. Bouet, <i>Brookhaven National Laboratory</i>	Advances in Multilayer Laue Lenses Fabrication	Wed-F
N. Brejnholt, <i>Lawrence Livermore National Laboratory</i>	Recent Results and Future Plans for a 45 Actuator Adaptive X-ray Optics Experiment at the Advanced Light Source	Wed-F
J. Brock, <i>CHESS</i>	New Capabilities at Cornell High Energy Synchrotron Source	Thu-A
D. Bruhwiler, <i>RadiaSoft LLC</i>	Recent Developments in SRW and Other Open Source Software for X-ray Optics	Fri-E
M. Brzhezinskaya, <i>Helmholtz-Zentrum Berlin</i>	New Reflection Zone Plate Array Optics with Individual Depth Profiles for Ultra-fast X-ray Applications	Thu-F
Y. Cai, <i>NSLS-II</i>	The Ultrahigh Resolution Inelastic X-ray Scattering (IXS) Beamline at NSLS-II: First Results	Fri-H
C. Callegari, <i>Elettra</i>	The FERMI Seeded-FEL Facility: Status and Perspectives	Thu-A
G.A. Carini, <i>SLAC National Accelerator Laboratory</i>	The ePix100 Camera: Use and Applications at LCLS	Wed-A
S. Casalbuoni, <i>KIT</i>	Overview of the Superconducting Undulator Development Program at ANKA	Tue-H
M. Cattelan, <i>University of Padova</i>	The Nature of the Fe-graphene Interface at the Nanometer Level	Tue-E
D. Chabot, <i>NSLS-II</i>	Ophyd: Software for Data Collection, Management, and Analysis	Fri-C
S. Chevalier, <i>University of Toronto</i>	In-situ Liquid Water Visualization in PEM Fuel Cells with High Resolution Synchrotron X-ray Radiography	Wed-C
Y-D. Chuang, <i>ALS</i>	Momentum-Resolved Resonant Inelastic X-Ray Scattering endstation (qRIXS) at the Advanced Light Source	Fri-H
O. Chubar, <i>NSLS-II</i>	Initial Performances of First Undulator-Based Hard X-Ray Beamlines of NSLS-II Compared to Simulations	Tue-D
F. Cipriani, <i>EMBL Grenoble</i>	CrystalDirect: A New Crystallization Plate and Automated Crystal Harvester to Benefit from the Power of Future X-ray Sources	Thu-D
L. Costa, <i>ESRF</i>	May The Force Be With You: High-Speed Atomic Force Microscopes for Synchrotron Sample Holders	Wed-C
I. Coulthard, <i>CLS</i>	Taking Advantage of a Confocal Microprobe Setup Specifically for Optimizing Micro-beam X-ray Absorption Spectroscopy	Thu-G
S.S. Dhesi, <i>DLS</i>	Dynamics of Charge-ordering in Superconducting Cuprates Studied Using Time-resolved Resonant Soft X-ray Diffraction	Fri-B
T. Donath, <i>DECTRIS Ltd.</i>	Large-Area CdTe Pixel Detectors for High-Energy X-ray Diffraction Applications	Wed-E
M. Drakopoulos, <i>DLS</i>	The Joint Engineering, Environment & Processing (JEEP) Beamline at Diamond Light Source	Tue-G
Y. Du, <i>Singapore SLS</i>	General Method for Automatic On-Line Beamline Optimization Based on Genetic Algorithm	Fri-C
J. Dvorak, <i>NSLS-II</i>	Towards 10 meV Resolution for Soft X-ray Resonant Inelastic Scattering: The Optical Design of the SIX Beamline and Spectrometer	Fri-E
D. Eichert, <i>Elettra</i>	Qualifying Biolabel Components for Effective Biosensing by Advanced High-Throughput Synchrotron Radiation - SEIRA Methodology	Wed-D
P. Fajardo, <i>ESRF</i>	Development of New X-ray Detectors Within the Framework of the ESRF Upgrade	Wed-E
K.D. Finkelstein, <i>CHESS</i>	Dual-Array Valence Emission Spectrometer (DAVES): A New Approach for Hard X-ray Emission Spectroscopies	Thu-H
R. Follath, <i>PSI</i>	Optical Design of the Aramis Beamlines at SwissFEL	Thu-F
M. Fuchs, <i>NSLS-II</i>	NSLS-II Biomedical Beamlines for Micro-crystallography, FMX, and for Highly Automated Crystallography, AMX: New Opportunities for Advanced Data Collections	Wed-H

Speaker	Presentation Title	Session
P. Gaal, <i>Helmholtz-Zentrum Berlin</i>	Ultrafast X-ray Diffraction at High Repetition Rates at the XPP-station at BESSY II	Fri-B
Y. Gao, <i>Argonne National Laboratory</i>	X-ray Scattering from Optically Trapped Nanoparticles	Thu-C
N. Gerasimova, <i>Euro-XFEL</i>	The Soft X-ray Monochromator Beamline at the European XFEL: Design and Expected Performance	Thu-B
S. Ghose, <i>NLSLS-II</i>	XPD: An Operational Powder X-ray Diffraction Beamline at NLSLS II	Fri-F/G
I. Gorgisyan, <i>PSI</i>	Recent Developments of the THz Streak Camera at PSI for FEL Temporal Diagnostics	Thu-B
H. Graafsma, <i>DESY</i>	Detector Developments at DESY for Free-Electron Lasers	Wed-A
D. Gröttsch, <i>Technische Universität Berlin</i>	Enabling Investigations of Liquids and Liquid-solid Interfaces with Soft X-ray Excitation at UHV Conditions	Wed-D
D. Gursoy, <i>Argonne National Laboratory</i>	Compressed Sensing and Processing for Rapid Three-Dimensional Nanoimaging	Fri-C
S. Gwo, <i>NSRRC</i>	Taiwan Photon Source: Current Status and Future Perspectives	Thu-E
K. Hasegawa, <i>SPring-8</i>	Upgrade of High Flux MX Beamline BL41XU at SPring-8	Wed-H
J. Hasi, <i>SLAC National Accelerator Laboratory</i>	High Channel Count X-ray Spectroscopy Detector for X-ray FELs	Thu-B
J. He, <i>SINAP</i>	A Novel Optical Design for a Micro-focusing Beamline	Fri-A
PA. Heimann, <i>SLAC National Accelerator Laboratory</i>	Beryllium Lenses as Collecting Optics for X-ray FEL Radiation	Wed-B
K. Hirata, <i>SPring-8</i>	Towards Automatic Data Collection Pipeline for Membrane Protein Structure Analyses at Beamline BL32XU	Thu-D
M. Holler, <i>SLS</i>	OMNY: An Instrument for Tomographic X-ray Nanoimaging	Wed-C
X. Hong, <i>Stony Brook University</i>	High-pressure Pair Distribution Function (PDF) Measurement in the Diamond Anvil Cell using High-energy Focused X-ray Beam	Tue-E
D. Howard, <i>Australian Synchrotron</i>	High Definition X-ray Fluorescence Imaging of Cultural Materials	Tue-A
X. Huang, <i>NLSLS-II</i>	Ptychography Operated in Fly-Scan Mode	Thu-C
D.J. Huang, <i>NSRRC</i>	High-Resolution Soft X-ray RIXS Using Active Gratings and Energy Compensation	Thu-H
X-R. Huang, <i>APS</i>	Development of a Novel Resonant Inelastic X-ray Scattering Spectrometer with Resolution Better than 10 meV	Thu-H
C.S. Hwang, <i>NSRRC</i>	Decreasing the Emittance Using a Multi-period Robinson Wiggler in TPS	Tue-H
M. Itou, <i>JASRI</i>	Compton Scattering Imaging for Operando Observation of Lithium Batteries	Wed-G
Y. Kayser, <i>PSI</i>	X-ray Grating Interferometry for at-Wavelength Wavefront Metrology	Tue-F
J.Y. Ko, <i>CHESS</i>	Design and Performance of a New Double-Laue Monochromator for High-energy X-rays at Cornell High Energy Synchrotron Source	Tue-B
J. Krempasky, <i>SLS</i>	AreaDetector Framework for SwissFEL On-line Burst Mode Diagnostics	Thu-B
A. Kroner, <i>DLS</i>	Industrial Research on Catalysis at Diamond Light Source	Tue-G
C. Krywka, <i>Helmholtz-Zentrum Geesthacht</i>	X-ray Nanodiffraction Meets Materials Science	Thu-G
A. Kubec, <i>Fraunhofer Institute for Material and Beam Technology</i>	Focusing with Crossed and Wedged Multilayer Laue Lenses	Wed-F
T. Kudo, <i>SPring-8</i>	A Wide Dynamic Range X-ray Detector with Silicon-On-Insulator Photon Imaging Array Sensor (SOPHIAS) for SACLA	Wed-E
H. Kumigashira, <i>KEK</i>	Observation and Control of Novel Quantum Phenomena in Artificial Structures of Strongly Correlated Oxides	Tue-E
D. La Civita, <i>Euro-XFEL</i>	Mounting and Cooling Effects of X-ray Mirrors on the Nanometer Scale	Fri-E
Y. Le Godec, <i>IMPMC, Université Pierre et Marie Curie</i>	Novel Portable Press for Synchrotron Time-resolved 3-D Micro-imaging under Extreme Conditions	Tue-E
F. Loehl, <i>PSI</i>	Status of SwissFEL, the X-ray Free-Electron Laser at PSI	Thu-E
W. Lu, <i>Technische Universität Berlin</i>	Development and Throughput Simulations of a Hard X-ray Split and Delay Line for the MID Station at the European XFEL	Thu-F
J. Lubeck, <i>Physikalisch-Technische Bundesanstalt</i>	A New Generation of X-ray Spectrometry UHV Instruments at the SR Facilities BESSY II, ELETTRA and SOLEIL	Fri-D
A. MacDowell, <i>Lawrence Berkeley National Laboratory</i>	High Temperature X-Ray Micro-Tomography	Tue-G
K. Mader, <i>ETH Zurich</i>	Investigating the Microvessel Architecture of the Mouse Brain: An Approach for Measuring, Stitching, and Analyzing 50 Teravoxels of Data	Wed-D
M. Makita, <i>PSI</i>	Single-shot Femtosecond X-ray Streaking Method for Ultrafast Dynamics	Fri-F/G
L. Makowski, <i>Northeastern University</i>	Scanning X-ray Microdiffraction Studies of Tissue Architecture	Wed-G
A. Maksimenko, <i>Australian Synchrotron</i>	Imaging and CT Modalities at the IMBL of the Australian Synchrotron	Wed-D
O. Marcouille, <i>SOLEIL</i>	Production of High Energy Photons with In-vacuum Wigglers	Tue-H
M. Martin, <i>ALS</i>	Synchrotron Infrared Nano-Spectroscopy	Fri-D
M. Martinson, <i>University of Saskatchewan</i>	Phase Preserving Beam Expander for Biomedical X-ray Imaging	Wed-B
O. Mathon, <i>ESRF</i>	X-ray Absorption Spectroscopy Under Extremes	Fri-F/G
S. Matsuyama, <i>Osaka University</i>	Achromatic X-ray Imaging Optics Based on Advanced Kirkpatrick-Baez Mirrors	Wed-B

Speaker	Presentation Title	Session
A. Meents, <i>DESY</i>	Serial Crystallography at PETRA-III	Wed-H
R. Mokso, <i>PSI</i>	GigaFROST: The Holy Grail of Fast Tomography	Fri-C
T. Moreno, <i>SOLEIL</i>	Synchrotron Infrared Beamline Design	Fri-A
M. Moretti Sala, <i>ESRF</i>	New Perspectives in Inelastic X-ray Scattering – UPBL6 at ID20	Fri-H
C. Murray, <i>DLS</i>	New Facility for Long Duration Experiments at Diamond Light Source	Tue-C
H. Nakao, <i>KEK</i>	Electronic Ordering States in Strongly Correlated Electron Systems Studied by Resonant Soft X-ray Scattering	Fri-D
E. Nazaretski, <i>NSLS-II</i>	Versatile Tool for nm-scale Spatial Resolution X-ray Imaging using MLL Nanofocusing Optics	Thu-G
T. Ohigashi, <i>UVSOR</i>	Development of In-situ Sample Cells for Scanning Transmission X-ray Microscopy	Tue-C
V. Olieric, <i>SLS</i>	Native SAD Phasing for Routine Structure Determinations	Thu-D
K. Osaka, <i>JASRI</i>	High-Throughput and Automated System for SAXS/USAXS Experiment for Industrial Use at BL19B2 in Spring-8	Tue-G
T. Osaka, <i>Osaka University</i>	Demonstration of Feasibility of X-ray Pump–X-ray Probe Experiments Using Hard X-ray Split-and-Delay Optics Combined with Focusing Mirrors	Thu-F
M. Oshima, <i>University of Tokyo</i>	Operando Soft X-ray Scanning Photoelectron Emission Microscopy for Graphene FETs and Organic FETs	Thu-G
R. Owen, <i>DLS</i>	A New and Novel Endstation for Microfocus Macromolecular Crystallography	Wed-H
H. Padmore, <i>ALS</i>	Multiplexed High-resolution Imaging Spectrometer for Resonant Inelastic Soft X-ray Scattering Spectroscopy (RIXS)	Thu-H
Y. Pan, <i>USTC</i>	Synchrotron VUV Photoionization Mass Spectrometry and its Applications on the Analysis of Pyrolysis Products of Solid Materials in Real Time	Fri-B
J. Parker, <i>DLS</i>	A Hard X-ray Nanoprobe Beamline and Electron Microscopy Facility at Diamond Light Source	Thu-G
D. Paterson, <i>Australian Synchrotron</i>	Chemical Speciation Imaging at Environmentally Relevant Concentrations Using X-ray Fluorescence Microscopy	Thu-G
S. Petrash, <i>Henkel Corporation</i>	A Spectroscopic 3D Tomographic Investigation of Structure, Morphology and Interface Properties in Sintered Nano-Silver Die-Attach Layers	Tue-G
N. Pilet, <i>SLS</i>	NanoXAS – Multichannel Imaging using Scanning Probe and X-Ray Microscopy	Wed-G
E. Ploenjes, <i>DESY</i>	FLASH2: Operation, Beamlines, and Photon Diagnostics	Thu-E
F. Polack, <i>SOLEIL</i>	Multilayer Gratings of the X-ray Monochromators of SOLEIL Beamlines for the 1-4 keV Energy Range	Tue-B
F. Ponce, <i>Lawrence Livermore National Laboratory, UC Davis</i>	Superconducting Tunnel Junction X-ray Detectors with Energy Resolution Approaching Statistical Limits	Wed-A
C. Pradervand, <i>PSI</i>	Micro-Focus Upgrade for the Macromolecular Crystallography Beamline X06SA at the Swiss Light Source	Wed-H
P. Prigent, <i>SOLEIL</i>	Commissioning of the Femto-Slicing Project at Synchrotron SOLEIL	Fri-F/G
A. Rack, <i>ESRF</i>	Revealing Ultra-fast Processes in Real-time by Direct and Diffraction Hard X-ray Imaging	Wed-G
C. Rau, <i>DLS</i>	Micro- and Nanoimaging at the Diamond Beamline I13L – Imaging and Coherence	Thu-C
T.Z. Regier, <i>CLS</i>	Soft X-ray Excitation-emission Matrix Measurement and Analysis	Fri-H
C. Riekkel, <i>ESRF</i>	Micro-Protein Crystallography Challenges	Wed-H
P. Roy, <i>SOLEIL</i>	THz Coherent Synchrotron Radiation Used for Ultra High Resolution Spectroscopy and Ultra-fast THz Measurements	Fri-B
M. Ruat, <i>ESRF</i>	A New Approach to Synchrotron Radiation CT Imaging and Powder Diffraction Using Hard X-ray Detector and Fast Continuous Framing	Fri-C
U. Rütt, <i>DESY</i>	Surface Diffraction with High-Energy X-rays at Beamline P07 at PETRA III	Tue-A
N. Samadi, <i>University of Saskatchewan</i>	An Energy Dispersive Bent Laue Monochromator for K-edge Subtraction Imaging	Tue-B
N. Samadi, <i>University of Saskatchewan</i>	A Phase Space Beam Position Monitor for Synchrotron Radiation	Tue-D
L. Samoylova, <i>Euro-XFEL</i>	Diamond Single Crystal Optics for Seeding at High Repetition Rate X-ray Free Electron Lasers	Thu-F
S. Sasaki, <i>Hiroshima SRC</i>	Experimental Evidences of Light's Orbital Angular Momentum Carried by Helical Undulator Radiation Harmonics	Tue-H
K. Sawhney, <i>DLS</i>	Development of a Multi-lane X-ray Mirror Providing Variable Beam Sizes	Wed-B
K. Scheidt, <i>ESRF</i>	Status of the ESRF's New Low-Emittance Storage Ring	Thu-A
C. Schroer, <i>DESY</i>	Hard X-Ray Scanning Microscope Based on Refractive Optics	Wed-F
O. Seeck	PETRA III: Experiments at a Low Emittance 6 GeV Synchrotron Radiation Source	Thu-A
K. Shanks, <i>CHESS</i>	The High Dynamic Range Pixel Array Detector (HDR-PAD): Concept and Design	Wed-A
D. Shapiro, <i>ALS</i>	Soft X-Ray Ptychography of Nano-Materials at the Advanced Light Source	Thu-C
X. Shi, <i>APS</i>	Propagation of Partially Coherent Beam through Non-ideal Beamline Components	Fri-A
D. Shu, <i>APS</i>	Progress of Nanopositioning Stages Development for Hard X-ray Nanofocusing and Coherence Preservation Optics at the APS	Fri-E
Y. Shvyd'ko, <i>APS</i>	High-contrast Sub-millivolt Inelastic X-ray Scattering for Nano- and Mesoscale Science	Thu-H

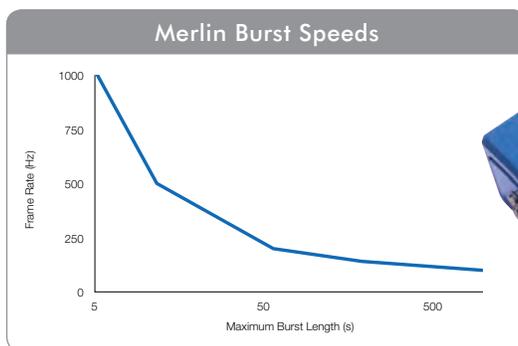
Speaker	Presentation Title	Session
D.P. Siddons, <i>NSLS-II</i>	VIPIC: A Custom-Made Detector for X-ray Speckle Measurements	Wed-E
F. Siewert, <i>Helmholtz - Berlin</i>	On the Characterization of Ultra-Precise Mirrors for the European XFEL by Use of Slope Measuring Deflectometry	Tue-F
H. Sinn, <i>Euro-XFEL</i>	X-ray Optics for the European XFEL	Thu-F
J. Smedley, <i>Brookhaven National Laboratory</i>	Transmission Diamond Imaging Detector	Tue-D
A. Snigirev, <i>ESRF</i>	X-ray Refractive Optics: A New Transition from Phase I to Phase II of the ESRF Upgrade Programme	Wed-B
A. Sokolov, <i>Helmholtz-Zentrum Berlin</i>	An XUV At-Wavelength Metrology Facility at BESSYII	Tue-F
E. Stavitski, <i>Brookhaven National Laboratory</i>	Integrated Sample Environment for Operando Hard X-ray Spectroscopy	Tue-A
N. Stojanovic, <i>DESY</i>	High-field THz from 4th Generation Light Sources: THz Beamline at FLASH	Fri-D
S. Stoupin, <i>APS</i>	Diffraction Imaging for In-situ Characterization of Double-crystal High-heat- Load X-ray Monochromators	Tue-F
M. Stuckelberger, <i>Arizona State University</i>	X-ray Beam Induced Current: High Resolution Mapping of Charge Collection Efficiency in Solar Cells	Wed-C
J. Sutter, <i>DLS</i>	Three-energy Focusing Laue Monochromator for the Diamond Light Source X-ray Pair Distribution Function Beamline I15-1	Tue-B
J. Sutter, <i>DLS</i>	Novel Technique for Spatially Resolved Imaging of Molecular Bond Orientations using X-ray Birefringence	Wed-C
A. Suvorov, <i>NSLS-II</i>	Ultra High Energy Resolution Focusing Monochromator for Inelastic X-ray Scattering Spectrometers	Thu-H
T. Tanabe, <i>NSLS-II</i>	Latest Experiences and Future Plans on NSLS-II Insertion Devices	Tue-H
A. Temnykh, <i>CHESS</i>	CHESS Upgrade with Compact Undulator Magnets: Operation Experience and First Results	Tue-H
H. Toyokawa, <i>JASRI</i>	Development of 1D and 2D CdTe Detectors at SPring-8	Wed-E
T. Tschentscher, <i>Euro-XFEL</i>	Investigations of Materials under Extreme Conditions of Pressure, Temperature, Ionization and Electro-magnetic Field at European XFEL	Tue-E
T. Tschentscher, <i>Euro-XFEL</i>	Status of Euro-XFEL	Thu-E
T. Ursby, <i>MAX IV</i>	The Macromolecular Crystallography Beamline BioMAX at the MAX IV Laboratory	Thu-D
T. Van de Kamp, <i>ANKA</i>	Fast and Time-resolved Tomography at ANKA: Applications, Infrastructure and Data Management	Fri-C
J. Viehhaus, <i>DESY</i>	Performance of the P04 Online Diagnostic Unit for SR and FEL Radiation	Tue-D
D. Voronov, <i>Lawrence Berkeley National Laboratory</i>	Innovative Diffraction Gratings for High-Resolution Resonant Inelastic Soft X-ray Scattering Spectroscopy	Fri-D
D.A. Walko, <i>APS</i>	Synchronizing MEMS-Based X-Ray Optics to Storage-Ring Fill Patterns	Fri-F/G
P. Walter, <i>DESY</i>	Real Time Investigation of Thin Film Growth in Sputter Deposition Processes	Tue-C
J. Wang, <i>NSLS-II</i>	In-situ X-ray Nano-imaging Application in Energy Materials	Tue-C
G. Wang, <i>NSLS-II</i>	Results of the NSLS-II Commissioning	Thu-A
H. Wang, <i>DLS</i>	Speckle based X-ray Phase Contrast and Dark-field Contrast Imaging	Thu-C
Y. Wang, <i>SINAP</i>	Ultrahigh Energy Resolution is Achieved in Dreamline at Shanghai Synchrotron Radiation Facility	Fri-D
M. Ward, <i>CHESS</i>	Large Area-High Speed Iron XANES Mapping of Impact Melt-bearing Breccias Utilizing a 384-pixel Maia Detector	Wed-G
C. Weiland, <i>Synchrotron Research, Inc.</i>	Imaging NEXAFS Detector for Compositional and Structural Analysis	Wed-E
H. Westfahl, Jr., <i>SIRIUS</i>	Sirius: The New Brazilian Synchrotron Light Source	Thu-E
L. Wiegart, <i>NSLS-II</i>	Virtual Beamline Meets Coherent Hard X-ray Scattering Commissioning	Fri-A
D.C.F. Wieland, <i>Helmholtz-Zentrum Geesthacht</i>	Investigation of Complex Solutions under Shear and Pressure	Tue-E
M. Wilson, <i>Rutherford Appleton Laboratory</i>	X-ray Fluorescence Imaging with Energy Dispersive Imaging Detectors and White Beam Synchrotron Radiation	Wed-A
M. Wojcik, <i>APS</i>	Zone Plate Stacking for the Advanced Photon Source Upgrade Project	Wed-F
Y. Wu, <i>SSRF</i>	VUV Extra-focus Principle and its Application to High Performance Grating Monochromators	Tue-F
K. Yamauchi, <i>Osaka University</i>	Challenges Toward Single Nanometer Focusing of X-ray Free Electron Laser	Wed-F
H. Yavaş, <i>DESY</i>	High Resolution Resonant Inelastic X-ray Scattering: First Results and Opportunities	Fri-H
G-C. Yin, <i>NSRRC</i>	X-ray Nanoprobe Project at Taiwan Photon Source	Wed-B
Z. Yin, <i>DESY</i>	Time-Resolved X-ray Spectroscopy at P04 of PETRA III	Fri-B
C-J. Yu, <i>PAL</i>	Current Status of PLS-II Beamlines	Thu-E
X. Yu, <i>Singapore SLS</i>	An Accurate Optical Design Method for Synchrotron Radiation Beamline with Wave-front Aberration Theory	Fri-A
H. Yumoto, <i>SPring-8</i>	X-ray Micro-focusing with Off-axis Ellipsoidal Mirror	Tue-F
L. Zhang, <i>SLAC National Accelerator Laboratory</i>	Optimizing X-ray Mirror Thermal Performance Using Matched Profile Cooling	Fri-E
J. Zhu, <i>NSRL</i>	In-situ Investigation of Metal/Polymer Interfaces by Soft X-ray Spectroscopies	Tue-A

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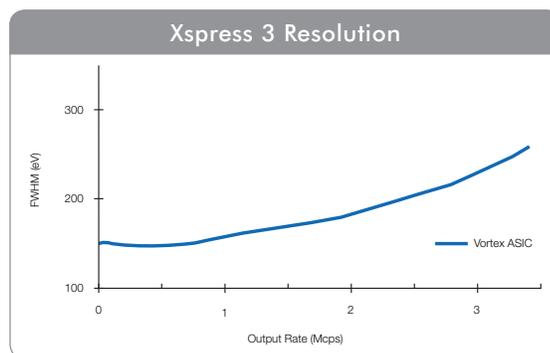
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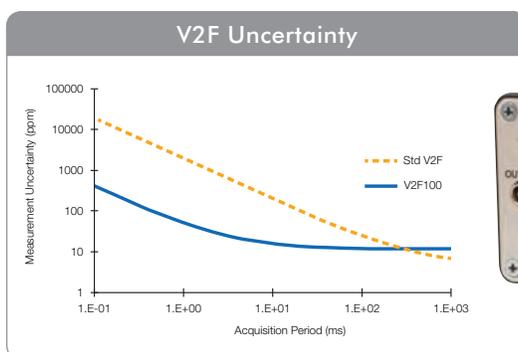
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# Sunday, July 5, 2015

# Monday, July 6, 2015

## Daily Schedule

12:00 PM – 6:00 PM	<b>Registration Desk Open</b> Marriott Marquis, 5th Floor
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8:30 AM – 9:00 AM	<b>Travel by bus to National Synchrotron Light Source II</b>
10:30 AM – 2:00 PM	<b>Tour and Lunch at NSLS-II</b>
2:00 PM – 4:00 PM	<b>Busses leave every 30 minutes to return to Marriott Marquis</b>
11:00 AM – 6:00 PM	<b>Vendor Registration &amp; Exhibition Hall Setup</b> West Side Ballroom, 5th Floor
5:00 PM – 6:00 PM	<b>Poster Setup</b> West Side Ballroom, 5th Floor
6:00 PM – 8:00 PM	<b>Welcome Reception</b> The Broadway Lounge, 8th Floor



8:00 AM	<b>Exhibition Hall and Poster Setup</b>   West Side Ballroom, 5th Floor			
8:15 AM	<b>Welcome &amp; Introduction:</b> Doon Gibbs, <i>Director of Brookhaven National Laboratory</i> ; Kathy Hochul, <i>Lieutenant Governor for the State of New York</i> ; John Hill, <i>Director of NSLS-II</i> Broadway Ballroom, 6th Floor			
8:45 AM	<b>Keynote &amp; Plenary Session</b>   Chair: Anke Kaysser-Pyzalla, <i>Helmholtz-Zentrum Berlin</i>   Broadway Ballroom, 6th Floor			
8:45 AM	Keynote: Understanding the Crystal Scale Performance of Structural Materials   Matthew Miller, <i>Cornell University</i>			
9:30 AM	Plenary: Materials Discovery at High Pressures in Earth and Energy Sciences   Ho-kwang Mao, <i>HP-STAR</i>			
10:00 AM	Plenary: Industry Research Program at Spring-8   Masaki Takata, <i>Tohoku University</i>			
10:30 AM	<b>Coffee &amp; Tea Break</b>   West Side Ballroom, 5th Floor			
11:00 AM	<b>Tue-A: New Developments in Material Applications I</b> Chair: Youichi Murakami, <i>KEK</i> North Broadway Ballroom, 6th Floor	<b>Tue-B: X-ray Optics Systems and Metrology I</b> Chair: Denny Mills, <i>APS</i> Majestic Complex, 6th Floor	<b>Tue-C: In-Situ &amp; Operando Materials Experiments I</b> Chair: Shih-Lin Chang, <i>NSRRC</i> South Broadway Ballroom, 6th Floor	<b>Tue-D: Advances in Beam Diagnostics and Monitoring</b> Chair: Caterina Biscari, <i>ALBA</i> Shubert Complex, 6th Floor
11:00 AM	Intermediate-Energy X-ray Beamline for Soft X-Ray Scattering and Photoemission at the APS P. Abbamonte, <i>University of Illinois at Urbana-Champaign</i>	Combined Dry Plasma-etching and Online at-Wavelength Metrology for Manufacturing Highly-focusing X-ray Mirrors S. Berujon, <i>ESRF</i>	New Facility for Long Duration Experiments at Diamond Light Source C. Murray, <i>DLS</i>	Initial Performances of First Undulator-Based Hard X-Ray Beamlines of NSLS-II Compared to Simulations O. Chubar, <i>NSLS-II</i>
11:20 AM	Surface Diffraction with High-Energy X-rays at Beamline P07 at PETRA III U. Rütt, <i>DESY</i>	An Energy Dispersive Bent Laue Monochromator for K-edge Subtraction Imaging N. Samadi, <i>University of Saskatchewan</i>	Towards Ambient Pressure in the Micro- and Nano-materials Characterization by Scanning Photoemission Imaging and Spectromicroscopy M. Amati, <i>Elettra</i>	Performance of the P04 Online Diagnostic Unit for SR and FEL Radiation J. Viehhaus, <i>DESY</i>
11:40 AM	High Definition X-ray Fluorescence Imaging of Cultural Materials D. Howard, <i>Australian Synchrotron</i>	Three-energy Focusing Laue Monochromator for the Diamond Light Source X-ray Pair Distribution Function Beamline I15-1 J. Sutter, <i>DLS</i>	In-situ X-ray Nano-imaging Application in Energy Materials J. Wang, <i>NSLS-II</i>	Transmission Diamond Imaging Detector J. Smedley, <i>Brookhaven National Laboratory</i>
12:00 PM	In-situ Investigation of Metal/Polymer Interfaces by Soft X-ray Spectroscopies J. Zhu, <i>NSRL</i>	Design and Performance of a New Double-Laue Monochromator for High-energy X-rays at Cornell High Energy Synchrotron Source J.Y. Ko, <i>CHESS</i>	Real Time Investigation of Thin Film Growth in Sputter Deposition Processes P. Walter, <i>DESY</i>	Fast Multi-Wavelength Photon Detector Based on Quantum Well Devices and Charge-Integrating Electronics for Non-Invasive FEL Monitoring M. Antonelli, <i>Elettra</i>
12:20 PM	Integrated Sample Environment for Operando Hard X-ray Spectroscopy E. Stavitski, <i>Brookhaven National Laboratory</i>	Multilayer Gratings of the X-ray Monochromators of SOLEIL Beamlines for the 1-4 keV Energy Range F. Polack, <i>SOLEIL</i>	Development of In-situ Sample Cells for Scanning Transmission X-ray Microscopy T. Ohgashi, <i>UVSOR</i>	A Phase Space Beam Position Monitor for Synchrotron Radiation N. Samadi, <i>University of Saskatchewan</i>
12:45 PM	<b>Lunch Break</b>   On Your Own		<b>Industry Round-Table Lunch</b>   Broadway Ballroom, 6th Floor	<b>Poster Session and Exhibition</b>   West Side Ballroom, 5th Floor
2:30 PM	<b>Tue-E: New Developments in Material Applications II</b> Chair: Michael James, <i>AS</i> North Broadway Ballroom, 6th Floor	<b>Tue-F: X-ray Optics Systems and Metrology II</b> Chair: Valeriy Yashchuk, <i>ALS</i> Majestic Complex, 6th Floor	<b>Tue-G: In-Situ &amp; Operando Materials Experiments II</b> Chair: Arthur Woll, <i>CHESS</i> South Broadway Ballroom, 6th Floor	<b>Tue-H: Novel Insertion Devices</b> Chair: Ferdinand Willeke, <i>NSLS-II</i> Shubert Complex, 6th Floor
2:30 PM	Investigations of Materials under Extreme Conditions of Pressure, Temperature, Ionization and Electromagnetic Field at European XFEL T. Tschentscher, <i>Euro-XFEL</i>	On the Characterization of Ultra-Precise Mirrors for the European XFEL by Use of Slope Measuring Deflectometry F. Siewert, <i>Helmholtz-Zentrum Berlin</i>	A Spectroscopic 3D Tomographic Investigation of Structure, Morphology and Interface Properties in Sintered Nano-Silver Die-Attach Layers S. Petrash, <i>Henkel Corporation</i>	Overview of the Superconducting Undulator Development Program at ANKA S. Casalbuoni, <i>KIT</i>
2:50 PM	Novel Portable Press for Synchrotron Time-resolved 3-D Micro-imaging under Extreme Conditions Y. Le Godec, <i>IMPMC, Université Pierre et Marie Curie</i>	An XUV At-Wavelength Metrology Facility at BESSY-II A. Sokolov, <i>Helmholtz-Zentrum Berlin</i>	High-Throughput and Automated System for SAXS/USAXS Experiment for Industrial Use at BL19B2 in Spring-8 K. Osaka, <i>JASRI</i>	CHESS Upgrade with Compact Undulator Magnets: Operation Experience and First Results A. Temnykh, <i>CHESS</i>
3:10 PM	High-pressure Pair Distribution Function (PDF) Measurement in the Diamond Anvil Cell using High-energy Focused X-ray Beam X. Hong, <i>Stony Brook University</i>	VUV Extra-focus Principle and its Application to High Performance Grating Monochromators Y. Wu, <i>SSRF</i>	Industrial Research on Catalysis at Diamond Light Source A. Kroner, <i>DLS</i>	Latest Experiences and Future Plans on NSLS-II Insertion Devices T. Tanabe, <i>NSLS-II</i>
3:30 PM	The Nature of the Fe-graphene Interface at the Nanometer Level M. Cattelan, <i>University of Padova</i>	X-ray Grating Interferometry for at-Wavelength Wavefront Metrology Y. Kayser, <i>PSI</i>	In Operando Study of the High-Voltage Spinel Cathode Material LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> Using Two Dimensional Full-field Spectroscopic Imaging of Ni and Mn Within 40 nm Resolution S. Bauer, <i>ANKA</i>	Experimental Evidences of Light's Orbital Angular Momentum Carried by Helical Undulator Radiation Harmonics S. Sasaki, <i>Hiroshima SRC</i>
3:50 PM	Observation and Control of Novel Quantum Phenomena in Artificial Structures of Strongly Correlated Oxides H. Kumigashira, <i>KEK</i>	Diffraction Imaging for In-situ Characterization of Double-crystal High-heat- Load X-ray Monochromators S. Stoupin, <i>APS</i>	The Joint Engineering, Environment & Processing (JEEP) Beamline at Diamond Light Source M. Drakopoulos, <i>DLS</i>	Production of High Energy Photons with In-vacuum Wigglers O. Marcouille, <i>SOLEIL</i>
4:10 PM	Investigation of Complex Solutions under Shear and Pressure D.C.F. Wieland, <i>Helmholtz-Zentrum Geesthacht</i>	X-ray Micro-focusing with Off-axis Ellipsoidal Mirror H. Yumoto, <i>Spring-8</i>	High Temperature X-Ray Micro-Tomography A. MacDowell, <i>Lawrence Berkeley National Laboratory</i>	Decreasing the Emittance Using a Multi-period Robinson Wiggler in TPS C.S. Hwang, <i>NSRRC</i>
4:30 PM	<b>Poster Session and Exhibition</b>   West Side Ballroom, 5th Floor			
5:30 PM	<b>IUCr Evening Reception</b>   Broadway Ballroom, 6th Floor			
6:30 PM	<b>Poster Teardown</b>   <b>Free Evening:</b> Delegates find dinner in New York City			

# Wednesday, July 8, 2015

8:00 AM	<b>Poster Setup</b>   West Side Ballroom, 5th Floor			
8:30 AM	<b>Keynote &amp; Plenary Session</b>   Chair: Andrew Peele, <i>AS</i>   Broadway Ballroom, 6th Floor			
8:30 AM	Keynote: Serial Crystallography at Free-Electron Laser and Synchrotron Light Sources   Henry Chapman, <i>DESY</i>			
9:15 AM	Plenary: Cryo Soft X-ray Tomography for Elucidating Pathogen-Cellular Interactions   Eva Pereiro, <i>ALBA</i>			
9:45 AM	Plenary: The New Nanoprobe for Hard X-rays   Yong Chu, <i>NSLS-II</i>			
10:15 AM	<b>Coffee &amp; Tea Break</b>   West Side Ballroom, 5th Floor			
10:45 AM	<b>Wed-A Session Advances in X-ray Detectors I</b> Chair: Peter Siddons, <i>NSLS-II</i> Majestic Complex, 6th Floor	<b>Wed-B: Advances in Focusing &amp; Imaging Optics I</b> Chair: Edgar Weckert, <i>DESY</i> North Broadway Ballroom, 6th Floor	<b>Wed-C: Advances in X-ray Imaging I</b> Chair: Perio Pianetta, <i>SSRL</i> South Broadway Ballroom, 6th Floor	<b>Wed-D: Biomedical Applications</b> Chair: Andrew Thompson, <i>SOLEIL</i> Shubert Complex, 6th Floor
10:45 AM	Detector Developments at DESY for Free-Electron Lasers H. Graafsma, <i>DESY</i>	Achromatic X-ray Imaging Optics Based on Advanced Kirkpatrick-Baez Mirrors S. Matsuyama, <i>Osaka University</i>	OMNY: An Instrument for Tomographic X-ray Nanoimaging M. Holler, <i>SLS</i>	Imaging and CT Modalities at the IMBL of the Australian Synchrotron A. Maksimenko, <i>Australian Synchrotron</i>
11:05 AM	The ePix100 Camera: Use and Applications at LCLS G.A. Carini, <i>SLAC National Accelerator Laboratory</i>	X-ray Refractive Optics: A New Transition for Diffraction Limited Synchrotron Sources A. Snigirev, <i>Immanuel Kant Baltic Federal University</i>	X-ray Imaging for Spatiotemporally Resolved Studies of Micro-structure Evolution during Technological and Biological Processes T. Baumbach, <i>ANKA</i>	Multiple Energy Synchrotron Biomedical Imaging System B. Basse, <i>University of Saskatchewan</i>
11:25 AM	The High Dynamic Range Pixel Array Detector (HDR-PAD): Concept and Design K. Shanks, <i>CHESS</i>	Development of a Multi-lane X-ray Mirror Providing Variable Beam Sizes K. Sawhney, <i>DLS</i>	In-situ Liquid Water Visualization in PEM Fuel Cells with High Resolution Synchrotron X-ray Radiography S. Chevalier, <i>University of Toronto</i>	Qualifying Biolabel Components for Effective Biosensing by Advanced High-Throughput Synchrotron Radiation - SEIRA Methodology D. Eichert, <i>Elettra</i>
11:45 AM	X-ray Fluorescence Imaging with Energy Dispersive Imaging Detectors and White Beam Synchrotron Radiation M. Wilson, <i>Rutherford Appleton Laboratory</i>	Beryllium Lenses as Collecting Optics for X-ray FEL Radiation P.A. Heimann, <i>SLAC National Accelerator Laboratory</i>	Novel Technique for Spatially Resolved Imaging of Molecular Bond Orientations using X-ray Birefringence J. Sutter, <i>DLS</i>	Investigating the Microvessel Architecture of the Mouse Brain: An Approach for Measuring, Stitching, and Analyzing 50 Teravoxels of Data K. Mader, <i>ETH Zurich</i>
12:05 PM	Perspectives in High Resolution, Energy Dispersive and Soft X-ray Imaging using MÖNCH A. Bergamaschi, <i>PSI</i>	Phase Preserving Beam Expander for Biomedical X-ray Imaging M. Martinson, <i>University of Saskatchewan</i>	X-ray Beam Induced Current: High Resolution Mapping of Charge Collection Efficiency in Solar Cells M. Stuckelberger, <i>Arizona State University</i>	Enabling Investigations of Liquids and Liquid-solid Interfaces with Soft X-ray Excitation at UHV Conditions D. Gröttsch, <i>Technische Universität Berlin</i>
12:25 PM	Superconducting Tunnel Junction X-ray Detectors with Energy Resolution Approaching Statistical Limits F. Ponce, <i>Lawrence Livermore National Laboratory, UC Davis</i>	X-ray Nanoprobe Project at Taiwan Photon Source G-C. Yin, <i>NSRRC</i>	May The Force Be With You: High-Speed Atomic Force Microscopes for Synchrotron Sample Holders L. Costa, <i>ESRF</i>	Development of the XFP Beamline for X-ray Footprinting at NSLS-II J. Bohon, <i>Case Western Reserve University</i>
12:45 PM	<b>Lunch Break</b>   On Your Own <b>Poster Session and Exhibition</b>   West Side Ballroom, 5th Floor <b>DECTRIS Invited Lunch</b>   Broadway Ballroom, 6th Floor			
2:30 PM	<b>Wed-E: Advances in X-ray Detectors II</b> Chair: Sol Gruner, <i>Cornell</i> Majestic Complex, 6th Floor	<b>Wed-F: Advances in Focusing &amp; Imaging Optics II</b> Chair: Barry Lai, <i>ANL</i> North Broadway Ballroom, 6th Floor	<b>Wed-G: Advances in X-ray Imaging II</b> Chair: Tilo Baumbach, <i>KIT</i> South Broadway Ballroom, 6th Floor	<b>Wed-H: Serial Micro-Crystallography</b> Chair: Sean McSweeney, <i>NSLS-II</i> Shubert Complex, 6th Floor
2:30 PM	VIPIC: A Custom-Made Detector for X-ray Speckle Measurements D.P. Siddons, <i>NSLS-II</i>	Advances in Multilayer Laue Lenses Fabrication N. Bouet, <i>Brookhaven National Laboratory</i>	High-throughput Microtomography using Synchrotron Radiation at DESY F. Beckmann, <i>Helmholtz-Zentrum Geesthacht</i>	Micro-Protein Crystallography Challenges C. Riekel, <i>ESRF</i>
2:50 PM	Development of New X-ray Detectors Within the Framework of the ESRF Upgrade P. Fajardo, <i>ESRF</i>	Challenges Toward Single Nanometer Focusing of X-ray Free Electron Laser K. Yamauchi, <i>Osaka University</i>	Revealing Ultra-fast Processes in Real-time by Direct and Diffraction Hard X-ray Imaging A. Rack, <i>ESRF</i>	NSLS-II Biomedical Beamlines for Micro-crystallography, FMX, and for Highly Automated Crystallography, AMX: New Opportunities for Advanced Data Collections M. Fuchs, <i>NSLS-II</i>
3:10 PM	Development of 1D and 2D CdTe Detectors at SPring-8 H. Toyokawa, <i>JASRI</i>	Focusing with Crossed and Wedged Multilayer Laue Lenses A. Kubec, <i>Fraunhofer Institute for Material and Beam Technology</i>	Large Area-High Speed Iron XANES Mapping of Impact Melt-bearing Breccias Utilizing a 384-pixel Maia Detector M. Ward, <i>CHESS</i>	Serial Crystallography at PETRA-III A. Meents, <i>DESY</i>
3:30 PM	Large-Area CdTe Pixel Detectors for High-Energy X-ray Diffraction Applications T. Donath, <i>DECTRIS Ltd.</i>	Zone Plate Stacking for the Advanced Photon Source Upgrade Project M. Wojcik, <i>APS</i>	NanoXAS - Multichannel Imaging using Scanning Probe and X-Ray Microscopy J. Raabe, <i>SLS</i>	Upgrade of High Flux MX Beamline BL41XU at SPring-8 K. Hasegawa, <i>SPring-8</i>
3:50 PM	Imaging NEXAFS Detector for Compositional and Structural Analysis C. Weiland, <i>Synchrotron Research, Inc.</i>	Hard X-Ray Scanning Microscope Based on Refractive Optics C. Schroer, <i>DESY</i>	Scanning X-ray Microdiffraction Studies of Tissue Architecture L. Makowski, <i>Northeastern University</i>	A New and Novel Endstation for Micro-focus Macromolecular Crystallography R. Owen, <i>DLS</i>
4:10 PM	A Wide Dynamic Range X-ray Detector with Silicon-On-Insulator Photon Imaging Array Sensor (SOPHIAS) for SACLA T. Hatsui, <i>SPring-8</i>	Recent Results and Future Plans for a 45 Actuator Adaptive X-ray Optics Experiment at the Advanced Light Source N. Brejnholt, <i>Lawrence Livermore National Laboratory</i>	Compton Scattering Imaging for Operando Observation of Lithium Batteries M. Itou, <i>JASRI</i>	Micro-Focus Upgrade for the Macromolecular Crystallography Beamline X06SA at the Swiss Light Source C. Pradervand, <i>PSI</i>
4:30 PM	<b>Poster Session and Exhibition</b>   West Side Ballroom, 5th Floor			
6:30 PM	<b>Free Evening:</b> Delegates find dinner in New York City			
7:00 PM	<b>International Advisory Council Dinner</b>   IAC Members Only   Ziegfeld Room, 4th Floor			

# Thursday, July 9, 2015

8:00 AM	<b>Poster Setup</b>   West Side Ballroom, 5th Floor			
8:30 AM	<b>Plenary Session</b>   Chair: Tetsuya Ishikawa, <i>SPRING-8</i>   Broadway Ballroom, 6th Floor			
8:30 AM	Plenary: Direct Observation of Bond Formation by Femtosecond X-ray Solution Scattering   Shunsuke Nozawa, <i>KEK</i>			
9:00 AM	Plenary: Seeded Free-Electron Lasers and Applications   Daniel Ratner, <i>SLAC National Accelerator Laboratory</i>			
9:30 AM	Plenary: Development of Ptychographic Tomography for Scientific Applications   Ana Diaz, <i>PSI</i>			
10:00 AM	Plenary: The Multi-Bend Achromat Storage Rings   Mikael Eriksson, <i>MAX IV</i>			
10:30 AM	<b>Coffee &amp; Tea Break</b>   West Side Ballroom, 5th Floor			
11:00 AM	<b>Thu-A: New Facilities I</b> Chair: Antonio José Roque da Silva, <i>NLSL</i> North Broadway Ballroom, 6th Floor	<b>Thu-B: Novel Instrumentation for FELs</b> Chair: M-H. Cho, <i>PAL</i> Majestic Complex, 6th Floor	<b>Thu-C: Coherent &amp; Ptychographic Methods</b> Chair: Henry Chapman, <i>DESY</i> South Broadway Ballroom, 6th Floor	<b>Thu-D: Automation in Structural Biology</b> Chair: Britt Hedman, <i>SSRL</i> Shubert Complex, 6th Floor
11:00 AM	The FERMI Seeded-FEL Facility: Status and Perspectives C. Callegari, <i>Elettra</i>	Future of ePix Detectors for High Repetition Rate FELs G. Blaj, <i>SLAC National Accelerator Laboratory</i>	Soft X-Ray Ptychography of Nano-Materials at the Advanced Light Source D. Shapiro, <i>ALS</i>	Highly Automated Solution SAXS at EMBL Hamburg C.E. Blanchet, <i>EMBL Hamburg</i>
11:20 AM	Results of the NSLS-II Commissioning G. Wang, <i>NSLS-II</i>	Recent Developments of the THz Streak Camera at PSI for FEL Temporal Diagnostics I. Gorgisyan, <i>PSI</i>	Micro- and Nanoimaging at the Diamond Beamline I13L – Imaging and Coherence C. Rau, <i>DLS</i>	CrystalDirect: A New Crystallization Plate and Automated Crystal Harvester to Benefit from the Power of Future X-ray Sources F. Cipriani, <i>EMBL Grenoble</i>
11:40 AM	Status of the ESRF's New Low-Emittance Storage Ring K. Scheidt, <i>ESRF</i>	High Channel Count X-ray Spectroscopy Detector for X-ray FELs J. Hasi, <i>SLAC National Accelerator Laboratory</i>	Ptychography Operated in Fly-Scan Mode X. Huang, <i>NSLS-II</i>	Towards Automatic Data Collection Pipeline for Membrane Protein Structure Analyses at Beamline BL32XU K. Hirata, <i>SPRING-8</i>
12:00 PM	New Capabilities at Cornell High Energy Synchrotron Source J. Brock, <i>CHESS</i>	AreaDetector Framework for SwissFEL On-line Burst Mode Diagnostics J. Krempasky, <i>SLS</i>	X-ray Scattering from Optically Trapped Nanoparticles Y. Gao, <i>Argonne National Laboratory</i>	Native SAD Phasing for Routine Structure Determinations V. Olieric, <i>SLS</i>
12:20 PM	PETRA III: Experiments at a Low Emittance 6 GeV Synchrotron Radiation Source O. Seock, <i>DESY</i>	The Soft X-ray Monochromator Beamline at the European XFEL: Design and Expected Performance N. Gerasimova, <i>Euro-XFEL</i>	Speckle based X-ray Phase Contrast and Dark-field Contrast Imaging H. Wang, <i>DLS</i>	The Macromolecular Crystallography Beamline BioMAX at the MAX IV Laboratory T. Ursby, <i>MAX IV</i>
12:45 PM	<b>Lunch Break</b>   On Your Own <b>Poster Session and Exhibition</b>   West Side Ballroom, 5th Floor			
2:30 PM	<b>Thu-E: New Facilities II</b> Chair: Herman Winick, <i>SLAC</i> North Broadway Ballroom, 6th Floor	<b>Thu-F: X-ray Optics for FELs &amp; Ultrafast Sources</b> Chair: Christian Schroer, <i>DESY</i> Majestic Complex, 6th Floor	<b>Thu-G: X-ray Microscopy &amp; Nanoprobes</b> Chair: Paul Dumas, <i>SOLEIL</i> South Broadway Ballroom, 6th Floor	<b>Thu-H: Advances in Inelastic Methods</b> Chair: Michael Krisch, <i>ESRF</i> Shubert Complex, 6th Floor
2:30 PM	Taiwan Photon Source: Current Status and Future Perspectives S. Gwo, <i>NSRRRC</i>	X-ray Optics for the European XFEL H. Sinn, <i>Euro-XFEL</i>	Chemical Speciation Imaging at Environmentally Relevant Concentrations Using X-ray Fluorescence Microscopy D. Paterson, <i>Australian Synchrotron</i>	Multiplexed High-resolution Imaging Spectrometer for Resonant Inelastic Soft X-ray Scattering Spectroscopy (RIXS) H. Padmore, <i>ALS</i>
2:50 PM	Status of Euro-XFEL T. Tschentscher, <i>Euro-XFEL</i>	New Reflection Zone Plate Array Optics with Individual Depth Profiles for Ultra-fast X-ray Applications M. Brzhezinskaya, <i>Helmholtz-Zentrum Berlin</i>	A Hard X-ray Nanoprobe Beamline and Electron Microscopy Facility at Diamond Light Source J. Parker, <i>DLS</i>	High-contrast Sub-millivolt Inelastic X-ray Scattering for Nano- and Mesoscale Science Y. Shvyd'ko, <i>APS</i>
3:10 PM	Status of SwissFEL, the X-ray Free-Electron Laser at PSI F. Loehl, <i>PSI</i>	Demonstration of Feasibility of X-ray Pump-X-ray Probe Experiments Using Hard X-ray Split-and-Delay Optics Combined with Focusing Mirrors T. Osaka, <i>Osaka University</i>	Operando Soft X-ray Scanning Photoelectron Emission Microscopy for Graphene FETs and Organic FETs M. Oshima, <i>University of Tokyo</i>	Dual-Array Valence Emission Spectrometer (DAVES): A New Approach for Hard X-ray Emission Spectroscopies K.D. Finkelstein, <i>CHESS</i>
3:30 PM	Current Status of PLS-II Beamlines C-J. Yu, <i>PAL</i>	Development and Throughput Simulations of a Hard X-ray Split and Delay Line for the MID Station at the European XFEL W. Lu, <i>Technische Universität Berlin</i>	Versatile Tool for nm-scale Spatial Resolution X-ray Imaging using MLL Nanofocusing Optics E. Nazaretski, <i>NSLS-II</i>	Ultra High Energy Resolution Focusing Monochromator for Inelastic X-ray Scattering Spectrometers A. Suvorov, <i>NSLS-II</i>
3:50 PM	FLASH2: Operation, Beamlines, and Photon Diagnostics E. Plönjes, <i>DESY</i>	Diamond Single Crystal Optics for Seeding at High Repetition Rate X-ray Free Electron Lasers L. Samoylova, <i>Euro-XFEL</i>	X-ray Nanodiffraction Meets Materials Science C. Krywka, <i>Helmholtz-Zentrum Geesthacht</i>	High-Resolution Soft X-ray RIXS Using Active Gratings and Energy Compensation D.J. Huang, <i>NSRRRC</i>
4:10 PM	Sirius: The New Brazilian Synchrotron Light Source H. Westfahl, Jr., <i>SIRIUS</i>	Optical Design of the Aramis Beamlines at SwissFEL R. Follath, <i>PSI</i>	Taking Advantage of a Confocal Microprobe Setup Specifically for Optimizing Micro-beam X-ray Absorption Spectroscopy I. Coulthard, <i>CLS</i>	Development of a Novel Resonant Inelastic X-ray Scattering Spectrometer with Resolution Better than 10 meV X-R. Huang, <i>APS</i>
4:30 PM	<b>Poster Session and Exhibition</b>   West Side Ballroom, 5th Floor			
7:00 PM	<b>Banquet Dinner</b>   Broadway Ballroom, 6th Floor			

# Friday, July 10, 2015

8:30 AM	<b>Plenary Session</b>   Chair: Roger Falcone, <i>ALS</i>   Broadway Ballroom, 6th Floor			
8:30 AM	Plenary: Measuring the Pathways to Complex Matter Far-From-Equilibrium: Development of Synchrotron X-ray Spatiotemporal Tools   Gopal Shenoy, <i>APS</i>			
9:00 AM	Plenary: Synchrotron Research using Soft X-ray Resonant Inelastic Scattering   Nick Brookes, <i>ESRF</i>			
9:30 AM	Plenary: Implications of Adding the Dimension of Time and Stimulated Processes to Science with X-rays   Alexander Föhlisch, <i>Helmholtz-Zentrum Berlin</i>			
10:00 AM	Plenary: Real-time Data-Intensive Computing   Dilworth Parkinson, <i>ALS</i>			
10:30 AM	<b>Coffee &amp; Tea Break</b>   West Side Ballroom, 5th Floor			
11:00 AM	<b>Fri-A: X-ray Optics Modeling and Design I</b> Chair: Oleg Chubar, <i>NLSLS-II</i> Majestic Complex, 6th Floor	<b>Fri-B: Time-Resolved Methods I</b> Chair: Carlo Callegari, <i>Elettra</i> North Broadway Ballroom, 6th Floor	<b>Fri-C: Advances in Data Acquisition and Management</b> Chair: Marco Stampanoni, <i>SLS</i> South Broadway Ballroom, 6th Floor	<b>Fri-D: Advances in Soft X-ray and Infrared Methods</b> Chair: Tom Ellis, <i>CLS</i> Shubert Complex, 6th Floor
11:00 AM	Propagation of Partially Coherent Beam through Non-ideal Beamline Components X. Shi, <i>APS</i>	Capturing Structural Dynamics of Photocatalyst by Picosecond X-ray Pulses S. Adachi, <i>KEK</i>	Compressed Sensing and Processing for Rapid Three-Dimensional Nanoimaging D. Gursoy, <i>Argonne National Laboratory</i>	Synchrotron Infrared Nano-Spectroscopy M. Martin, <i>ALS</i>
11:20 AM	Virtual Beamline Meets Coherent Hard X-ray Scattering Commissioning L. Wiegart, <i>NLSLS-II</i>	THz Coherent Synchrotron Radiation Used for Ultra High Resolution Spectroscopy and Ultra-fast THz Measurements P. Roy, <i>SOLEIL</i>	GigaFROST: The Holy Grail of Fast Tomography R. Mokso, <i>PSI</i>	Ultra-high Energy Resolution is Achieved in Dreamline at Shanghai Synchrotron Radiation Facility Y. Wang, <i>SINAP</i>
11:40 AM	A Novel Optical Design for a Micro-focusing Beamline J. He, <i>SINAP</i>	Time-Resolved X-ray Spectroscopy at P04 of PETRA III Z. Yin, <i>DESY</i>	Fast and Time-resolved Tomography at ANKA: Applications, Infrastructure and Data Management T. Van de Kamp, <i>ANKA</i>	High-field THz from 4th Generation Light Sources: THz Beamline at FLASH N. Stojanovic, <i>DESY</i>
12:00 PM	Synchrotron Infrared Beamline Design T. Moreno, <i>SOLEIL</i>	Ultrafast X-ray Diffraction at High Repetition Rates at the XPP-station at BESSY II P. Gaal, <i>Helmholtz-Zentrum Berlin</i>	Ophyd: Software for Data Collection, Management, and Analysis D. Chabot, <i>NLSLS-II</i>	Electronic Ordering States in Strongly Correlated Electron Systems Studied by Resonant Soft X-ray Scattering H. Nakao, <i>KEK</i>
12:20 PM	An Accurate Optical Design Method for Synchrotron Radiation Beamline with Wave-front Aberration Theory X. Yu, <i>Singapore SLS</i>	Dynamics of Charge-ordering in Superconducting Cuprates Studied Using Time-resolved Resonant Soft X-ray Diffraction S.S. Dhesi, <i>DLS</i>	A New Approach to Synchrotron Radiation CT Imaging and Powder Diffraction Using Hard X-ray Detector and Fast Continuous Framing M. Ruat, <i>ESRF</i>	Innovative Diffraction Gratings for High-Resolution Resonant Inelastic Soft X-ray Scattering Spectroscopy D. Voronov, <i>Lawrence Berkeley National Laboratory</i>
12:40 PM	RAY-UI: A Powerful and Extensible User Interface for RAY P. Baumgaertel, <i>Helmholtz-Zentrum Berlin</i>	Synchrotron VUV Photoionization Mass Spectrometry and its Applications on the Analysis of Pyrolysis Products of Solid Materials in Real Time Y. Pan, <i>USTC</i>	General Method for Automatic On-Line Beamline Optimization Based on Genetic Algorithm Y. Du, <i>Singapore SLS</i>	A New Generation of X-ray Spectrometry UHV Instruments at the SR Facilities BESSY II, ELETTRA and SOLEIL J. Lubeck, <i>Physikalisch-Technische Bundesanstalt</i>
1:00 PM	<b>Lunch Break</b>   On Your Own <b>Exhibition</b>   West Side Ballroom, 5th Floor			
2:30 PM	<b>Fri-E: X-ray Optics Modeling and Design II</b> Chair: Kawal Sawhney, <i>DLS</i> Majestic Complex, 6th Floor	<b>Fri-F/G: Time-Resolved Methods II</b> Chair: Shinichi Adachi, <i>KEK</i> Broadway Ballroom, 6th Floor	<b>Fri-H: Inelastic and Emission Spectroscopy</b> Chair: Steve Hulbert, <i>NLSLS-II</i> Shubert Complex, 6th Floor	
2:30 PM	Progress of Nanopositioning Stages Development for Hard X-ray Nanofocusing and Coherence Preservation Optics at the APS D. Shu, <i>APS</i>	X-ray Absorption Spectroscopy Under Extremes O. Mathon, <i>ESRF</i>	Soft X-ray Excitation-emission Matrix Measurement and Analysis T.Z. Regier, <i>CLS</i>	
2:50 PM	Mounting and Cooling Effects of X-ray Mirrors on the Nanometer Scale D. La Civita, <i>Euro-XFEL</i>	XPD: In-situ, Modulation-enhanced, and Time-resolved X-ray Powder Diffraction at NLSLS-II S. Ghose, <i>NLSLS-II</i>	Momentum-Resolved Resonant Inelastic X-Ray Scattering endstation (qRIXS) at the Advanced Light Source Y-D. Chuang, <i>ALS</i>	
3:10 PM	Optimizing X-ray Mirror Thermal Performance Using Matched Profile Cooling L. Zhang, <i>SLAC National Accelerator Laboratory</i>	Synchronizing MEMS-Based X-Ray Optics to Storage-Ring Fill Patterns D.A. Walko, <i>APS</i>	New Perspectives in Inelastic X-ray Scattering – UPBL6 at ID20 M. Moretti Sala, <i>ESRF</i>	
3:30 PM	Towards 10 meV Resolution for Soft X-ray Resonant Inelastic Scattering: The Optical Design of the SIX Beamline and Spectrometer J. Dvorak, <i>NLSLS-II</i>	Single-shot Femtosecond X-ray Streaking Method for Ultrafast Dynamics M. Makita, <i>PSI</i>	High Resolution Resonant Inelastic X-ray Scattering: First Results and Opportunities H. Yavaş, <i>DESY</i>	
3:50 PM	Recent Developments in SRW and Other Open Source Software for X-ray Optics D. Bruhwiler, <i>RadiaSoft LLC</i>	Commissioning of the Femto-Slicing Project at Synchrotron SOLEIL P. Prigent, <i>SOLEIL</i>	The Ultra-high Resolution Inelastic X-ray Scattering (IXS) Beamline at NLSLS-II: First Results Y. Cai, <i>NLSLS-II</i>	
4:10 PM	<b>Closing Session:</b> Kai Siegbahn Prize Award Announcement   SRI 2018 Host Presentation   Broadway Ballroom, 6th Floor			

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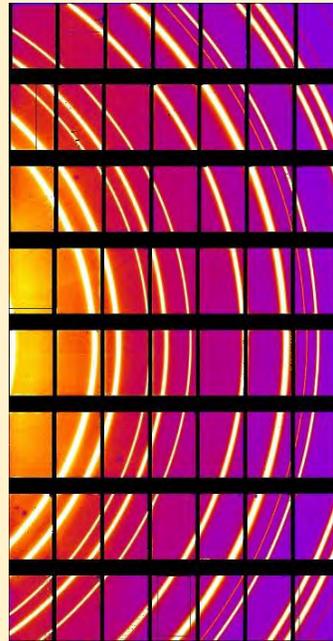
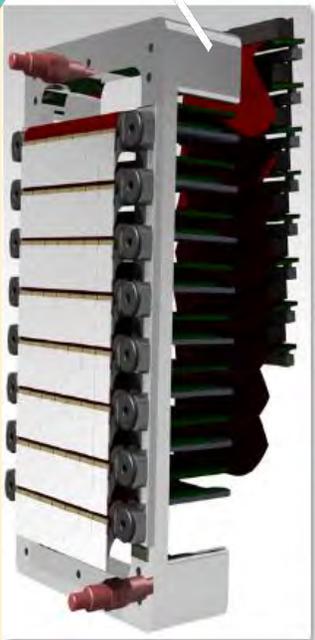
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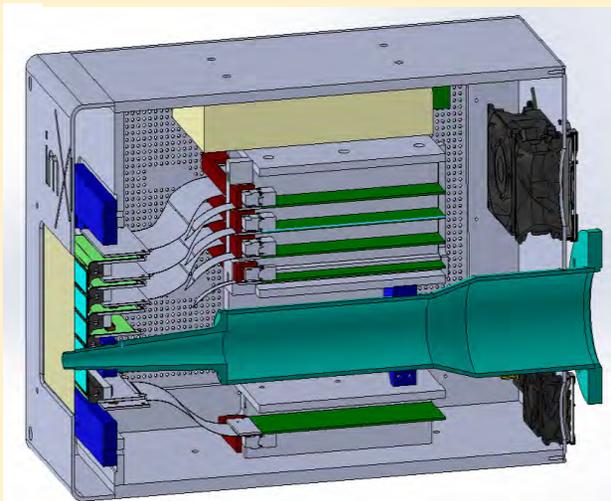
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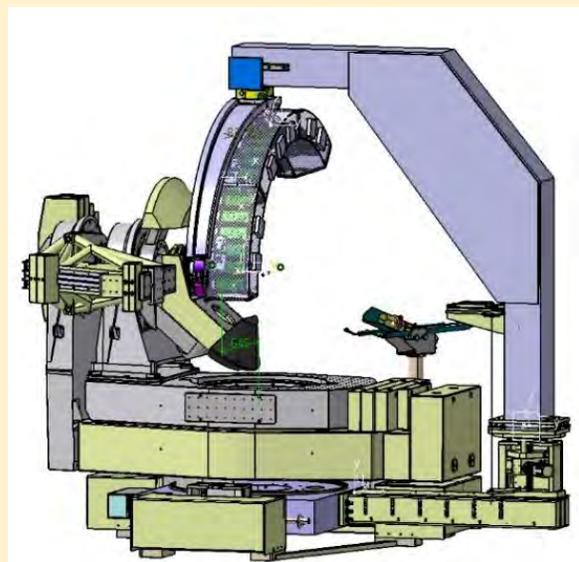


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The Poster Sessions will be held Tuesday, Wednesday, and Thursday of the SRI 2015 Conference. All posters will be displayed in the West Side Ballroom on the 5th Floor of the Marriott Marquis.

## Posters, Tuesday July 7

### Advances in X-ray Optics & Metrology

Number	Name	Title
TUE-P-001	Sergey Antipov	Two-dimensional Single Crystal Diamond Refractive X-Ray Lens
TUE-P-002	Stefan Braun	X-ray mirrors and monochromators containing B4C-based multilayers with micro-roughness below 0.1 nm rms
TUE-P-003	Shih-lin Chang	Inclined incidence hard X-ray resonators as high-resolution beam conditioners for X-ray optics
TUE-P-004	Steve Collins	The Simplest possible design for a KB Microfocus Mirror System?
TUE-P-005	Ralph Doehrmann	Double crystal monochromators at PETRA III: New approach to detect vibrations and improve the stability.
TUE-P-006	Igor Dolbnya	The B16 Test Beamline water-cooled crystal monochromator at Diamond Light Source: design, developments and performance
TUE-P-007	Gerd Ehret	Small angle deflectometer with sub-millimeter lateral resolution for flatness measurements of optics
TUE-P-008	Robert Fischetti	A Thermally Stabilized Dual Crystal Monochromator
TUE-P-009	Ralf D. Geckeler	Angle Metrology at PTB for Beamline Optics
TUE-P-010	Kyehwan Gil	Commissioning of a New Kirkpatrick-Baez Mirror System for Microbeams
TUE-P-011	Ariel Gomez	Ray-tracing of Bent Laue Crystals for the High Energy Diffraction Beamline at the Canadian Light Source
TUE-P-012	Yumei He	Developments of nano-accuracy long trace profiler at SSRF
TUE-P-013	Uwe Heidorn	Trends on thin film X-ray optics and pinholes for synchrotron beamlines
TUE-P-014	Keiichi Hirano	Development and Application of Variable-Magnification X-Ray Bragg Optics
TUE-P-015	Noriyuki Igarashi	Double surface bimorph mirror for the BL15A of the Photon Factory
TUE-P-016	Werner Jark	A compact X-ray translocator Concepts for auto-aligning zoomable alligator lenses
TUE-P-017	Zheng Jiang	Key techniques of hard X-ray absorption beamline at SSRF Phase II project
TUE-P-018	Hui Jiang	Determination of Surface Figure Error by Diffraction Tomography with Partial Coherent X-rays
TUE-P-019	Roman Klein	Calibration of space instruments at the Metrology Light Source
TUE-P-020	Michael Krumrey	X-ray pencil beam facilities for astrophysics optics characterization
TUE-P-021	Shangwei Lin	Instrumentation of mechanical stability for the beamline at NRRC
TUE-P-022	Mikhail Lyubomirskiy	Hard X-ray interferometers fabricated by planar Si technology
TUE-P-023	Mercedes Martinson	Focus study measuring phase effects of a bent Laue beam expander
TUE-P-024	Josep Nicolas	The relationship between slope error and striations in defocused beams
TUE-P-025	Haruhiko Ohashi	Developments towards contamination-free x-ray optics for next-generation light source
TUE-P-026	Maxim Polikarpov	Diamond is a refractive lens' best friend
TUE-P-027	Alexander Rack	In-vacuum multi-modal monochromator for synchrotron-based hard X-ray micro-imaging
TUE-P-028	Alexander Rack	Beam profile and coherence properties of synchrotron beams after reflection on multilayer mirrors
TUE-P-029	Björn Schmekel	Theoretical Simulations of Novel Flexible X-ray Waveguides
TUE-P-030	Deming Shu	Design of a cryo-cooled artificial channel-cut crystal monochromator for the European XFEL
TUE-P-031	Deming Shu	Mechanical Design of Thin-film Diamond Crystal Mounting Apparatus for Coherence Preservation Hard X-ray Optics
TUE-P-032	Joshua Stimson	Analytical Model for Heat Absorption from X ray Power into a Monochromator First Crystal
TUE-P-033	Michael Störmer	Ultra precise fabrication of 500 mm long and laterally graded Ru/C Multilayer Mirrors for X-ray light sources
TUE-P-034	Yoshihito Tanaka	X-ray beam transfer between hollow fibers for the long-distance transport
TUE-P-035	Eric Van Every	New focusing mirror system for 12-BM Beamline at APS Sector 12
TUE-P-036	Hongchang Wang	At-wavelength metrology of X-ray optics with nanoradian accuracy
TUE-P-037	Christian Wendt	Coating Processes for Glass Capillaries used as Novel Flexible X-ray Waveguides
TUE-P-038	Jörn Wochnowski	Novel Flexible X-ray Waveguides
TUE-P-039	Zhongmin Xu	Improved High-Heat-Load Crystal Monochromator Design and Manufacturing At SSRF BM Beamline
TUE-P-040	Valeriy Yashchuk	International Workshop on X-Ray Mirror Design, Fabrication and Metrology: Addressing Modern Challenges in X-Ray Optics
TUE-P-041	Juan Zhou	Making multilayer Laue lenses with mechanical polishing methods

## Insertion Devices & Accelerator Instrumentation

Number	Name	Title
TUE-P-042	Melike Abliz	Preliminary Analysis for a 27-mm Period Undulator for the MBA Lattice
TUE-P-043	Melike Abliz	Conceptual Design of a 3-Pole Wiggler for the APS MBA Upgrade
TUE-P-044	Drew Bertwistle	EPU Correction Scheme Study at the CLS
TUE-P-045	Gabriele Brajnik	Pilot tone as a key to improving the spatial resolution of eBPMs
TUE-P-046	Weixing Cheng	Beam Measurements Using Visible Synchrotron Light at NSLS2 Storage Ring
TUE-P-047	Ian Coulthard	Extreme Chicaning of Insertion Devices at the Canadian Light Source For the BioXAS Beamlines
TUE-P-048	Roger Dejus	Sharpness of Interference Pattern of The 3-Pole Wiggler
TUE-P-049	Jui-che Huang	Development of Cryogenic Permanent Undulator in Taiwan Photon Source
TUE-P-050	Ching-shiang Hwang	Classification of the calculation of the energy spectrum from a wiggler and an undulator with a specific method
TUE-P-051	Ching-shiang Hwang	Decreasing the emittance using a multi-period Robinson wiggler in TPS
TUE-P-052	Oksana Ivashkevych	Beam position stabilization system for slow drifts.
TUE-P-053	Pavle Juranic	Temporal Diagnostics Developments for SwissFEL
TUE-P-054	Tatsuo Kaneyasu	Installation of a Second Superconducting Wiggler at SAGA-LS
TUE-P-055	Charles Kitegi	Magnet System Optimization for Segmented Adaptive-Gap In-Vacuum Undulator
TUE-P-056	Kazuhiko Mase	Development of low-cost and high-performance non-evaporable getter (NEG) pumps
TUE-P-057	Oliver Schmidt	Mechanical Design of a Horizontal-Gap Vertically-Polarizing Undulator
TUE-P-058	Andreas Schöps	Properties of the Insertion Devices for PETRA III and its Extension
TUE-P-059	Tim Shea	Segmented Adaptive-Gap In-Vacuum Undulator
TUE-P-060	Seunghwan Shin	Improvement of Photon Beam Position Stability at PLS-II
TUE-P-061	Igors Sics	A general view of IDs to be installed at ALBA for second and third phase beam-lines
TUE-P-062	Kazushi Sumitani	Development of beam profile monitor using parametric X-ray radiation
TUE-P-063	Markus Tischer	Refurbishment of Radiation-Damaged Undulators
TUE-P-064	Kimichika Tsuchiya	Project to Renew the Undulators at the Photon Factory
TUE-P-065	Mathieu Valleau	Development of cryogenic undulators with PrFeB magnets at SOLEIL
TUE-P-066	Erik Wallen	Status of LCLS II undulators
TUE-P-067	Tomasz W. Wysockinski	25+2 Poles, 4.3T wiggler at BMIT – 7 years operational experience.
TUE-P-068	Zhenghua Xia	NSLS-II Beamline Radiation Shielding Calculation
TUE-P-069	Jieping Xu	Research and Development of a Model Superconducting Undulator in SSRF
TUE-P-070	Joseph Xu	Magnetic Performance of the 2.8-Meter Long Horizontal Field Undulator with a Dynamic Force Compensation Mechanism
TUE-P-071	Shigeru Yamamoto	Development of undulator magnets towards very short period lengths
TUE-P-072	Chinkang Yang	Single stretched wire system for in-vacuum undulators field measurement at NSRRC

## In-Situ, In-Operando, and Industrial Studies

Number	Name	Title
TUE-P-073	Hitoshi Abe	Development of surface sensitive Kramers-Kronig reflection XAFS method and its application to in situ observation of reduction of NiO to Ni metal
TUE-P-074	Matteo Amati	Novel approaches toward near ambient pressure photoemission spectroscopy and spectromicroscopy
TUE-P-075	Jianming Bai	Tracking the Crystalline Phases in Solution-based Syntheses of Battery Materials with In Situ Time-resolved Synchrotron X-ray Powder Diffraction
TUE-P-076	Annabelle Baker	Development of a Modified Coin Cell for in-situ, Long Duration Synchrotron X-Ray Powder Diffraction
TUE-P-077	Sondes Bauer	The power of in-situ PLD synchrotron characterization for the detection of domain formation during growth of Ba <sub>0.5</sub> Sr <sub>0.5</sub> TiO <sub>3</sub> on MgO
TUE-P-078	Armand Beaudoin	A New Generation of Mechanical Testing Capabilities
TUE-P-079	Yamali Hernandez	The International Society for Sample Environment (ISSE)
TUE-P-080	Justus Just	Fast Injection Setup for Real-Time Probing of Chemical Two-Component Reactions by Quick-EXAFS: Nanocrystal Nucleation

## In-Situ, In-Operando, and Industrial Studies, continued

Number	Name	Title
TUE-P-081	Anna Kroner	A flexible gas flow reaction cell for in situ X-ray Absorption Spectroscopy studies
TUE-P-082	Sean Mcmitchell	Developing traceable links between mesoscopic strain and crystallography through in-situ interferometry
TUE-P-083	Oliver Müller	QEXAFS monochromator, Detectors and Data Acquisition System at the SuperXAS (SLS) Beamline for 15 ms EXAFS
TUE-P-084	Thomas Sorensen	New integrated MX beamline dedicated to in situ diffraction experiments
TUE-P-085	Stanislav Stoupin	Projection x-ray topography system at 1-BM X-ray Optics Test Beamline at the Advanced Photon Source
TUE-P-086	Masafumi Takagaki	Development of a remote-XAFS system at Spring-8 BL14B2
TUE-P-087	Yasumasa Takagi	In Situ Observation of Fuel Cell Electrodes by Near Ambient Pressure Hard X-ray photoelectron Spectroscopy
TUE-P-088	Feng Wang	Develop in-situ Electrochemical Cells for Tracking Electrochemical Dynamics in Battery Electrodes Using Synchrotron X-ray Techniques
TUE-P-089	Jun Wang	Industrial Research Program at NSLS/NSLS-II
TUE-P-090	Satoshi Yasuno	Hard X-ray Photoelectron Spectroscopy Equipment Developed at Beamline BL46XU of SPring-8 for Industrial Researches

## Materials Science Applications

Number	Name	Title
TUE-P-091	Milinda Abeykoon	Bragg Peaks and Beyond: A new beamline to study local structural fluctuations in complex materials
TUE-P-092	Yoshiyuki Amemiya	Effect of Multiple Scattering on Small-Angle X-ray Scattering and X-ray Photon Correlation Spectroscopy
TUE-P-093	Yu-chun Chuang	High Resolution Powder X-ray Diffraction Beamline at Taiwan Photon Source
TUE-P-094	Alex Deyhim	Non-Contact Surface Mapping with Slit Blades
TUE-P-095	Anita Ehnes	An x-ray setup to investigate the atomic order of confined liquids in slit geometry
TUE-P-096	Masafumi Fukuto	Scanning Transmission X-ray Scattering to Probe Liquid-Surface Structures
TUE-P-097	Sergey Gorovikov	Quantum Material Spectroscopy Center at the Canadian Light Source
TUE-P-098	Rie Haruki	Dynamics of Iodine Anions in KI and LiI Aqueous Solutions Studied by 127I Nuclear Resonant Quasi-elastic Scattering
TUE-P-099	Yuichi Haruyama	Upgrade of a Vacuum Ultraviolet and Soft X-ray Undulator Beamline BL07B in NewSUBARU
TUE-P-100	Xinguo Hong	Absolute x-ray energy calibration and monitoring using a diffraction-based method
TUE-P-101	Xinguo Hong	An alternative method for pair distribution function (PDF) determination from the complex sample environment using diamond anvil cell
TUE-P-102	Yasuhiko Imai	Characterization of domain structure in one-dimensional SrRuO <sub>3</sub> nanostructure using synchrotron x-ray microdiffraction
TUE-P-103	Noritake Isomura	Structure determination of multilayer with an island-like overlayer by hard X-ray photoelectron spectroscopy
TUE-P-104	Michael James	See How She Runs! - Recent Developments and Achievements of the SAXS/WAXS Beamline at the Australian Synchrotron
TUE-P-105	Nicolas Jaouen	RESOXS: status of the soft x-ray diffractometer dedicated to (resonant) magnetic and coherent scattering of polarized x-rays at SOLEIL
TUE-P-106	Margaret Koker	Establishment of diffraction grain mapping capabilities at CHESS
TUE-P-107	Michael Kolbe	The MLS-IDB: An Insertion Device Beamline for the UV to soft X-ray spectral range
TUE-P-108	Michael Kolbe	Combined XPS- and XRF-surface analysis in one instrument
TUE-P-109	Markus Kraemer	Quantitative X-ray fluorescence analysis with PVD-made thin films
TUE-P-110	Michael Krumrey	SAXS, GISAXS and ASAXS in the tender X-ray range
TUE-P-111	Ching-shun Ku	Current Status and Capabilities of Submicron X-ray Diffraction Beamline at Taiwan Photon Source
TUE-P-112	L. S. R. Kumara	Structural studies of metal nanoparticles using high-energy X-ray diffraction
TUE-P-113	Yin-yu Lee	Synchrotron VUV Beamline/Endstations Dedicated to Combustion Research at TLS
TUE-P-114	Ruipeng Li	Decoding the Superlattice Structure of Truncated PbS Supercrystal
TUE-P-115	He Lin	PDF method development at SSRF
TUE-P-116	Wei-rein Liu	Temporally Coherent X-Ray Diffraction Beamline at Taiwan Photon Source
TUE-P-117	Claudio Mazzoli	High electric fields sample environment for the investigation of strongly correlated electron system by coherent soft X-ray scattering
TUE-P-118	Gary Navrotsky	Failure Modes of OFE and GlidCop® Copper Absorber Materials under X-ray Induced High Heat Load Thermal Fatigue Conditions

## Materials Science Applications, continued

Number	Name	Title
TUE-P-119	Gareth Nisbet	Simultaneous Thin Film and Substrate Strain Measurements using Diffuse Multiple Scattering
TUE-P-120	Hande Ozturk	Particle Sampling and Intensity Statistics of Powder Diffraction with Nano-crystalline Powders
TUE-P-121	Philip Rodenbough	Size-Dependence of Bulk Modulus for Nanocerium
TUE-P-122	Eduardo Salas	Multiple single-crystal analyzer-detector system for synchrotron radiation high resolution powder diffraction experiments.
TUE-P-123	Eduardo Salas	Design and development of a new experimental set-up to study solid-gas reactions at isobaric and isothermal environment by synchrotron X-ray powder diffraction.
TUE-P-124	Frank Scholze	Application of SAXS Schemes for the Characterization of Structured Surfaces in the EUV Spectral Range
TUE-P-125	Nobutaka Shimizu	Software development for analysis of small-angle X-ray scattering data
TUE-P-126	Tetsuroh Shirasawa	Investigation of superconductivity of $\text{Cu}_x\text{Bi}_2\text{Se}_3$ using thinfilm samples
TUE-P-127	Harishchandra Singh	Synchrotron Source: efficient probe for spin-lattice coupling
TUE-P-128	Stanislav Sinogeikin	Advanced synchrotron techniques for high-pressure high/low temperature research at HPCAT, APS
TUE-P-129	Vesna Stanic	The Small Angle X-ray Scattering beamline (SAPUCAIA) at a new facility of SIRIUS
TUE-P-130	Paul Steadman	Soft X-ray Diffraction and Coherence Measurements: Upgrades to Diamond Light Source's Soft X-ray Beamline BLADE
TUE-P-131	Eric Stellamanns	Xvis rheology at DESY
TUE-P-132	Jorg Stempffer	Advances at beamline P09 for magnetic scattering and spectroscopy
TUE-P-133	Hideaki Takagi	Upgrade of Small Angle X-ray Scattering Beamline, BL6A at the Photon Factory
TUE-P-134	Masahiko Tanaka	Rietveld analysis using powder diffraction data with anomalous scattering effect obtained by focused beam flat sample method
TUE-P-135	Aki Tominaga	Synchrotron Radiation Studies of Chromium-doped Ultrananocrystalline Diamond / Amorphous Carbon Composite Powders
TUE-P-136	Gokmur Tutuncu	Implementation of Modulation Techniques at the X-ray Powder Diffraction (XPD) Beamline
TUE-P-137	Nicolas Vaxelaire	In-Situ Nano-beam X-Ray Diffraction During Electrical Cycling in Polycrystalline $\text{PbZrTiO}_3$ Thin Films
TUE-P-138	Wen Wen	BL14B1 Diffraction Beamline of the Shanghai Synchrotron Radiation Facility (SSRF) and in Operando Structure-property Studies of Electrode Materials for Lithium Batteries
TUE-P-139	Lutz Wiegart	The Coherent Hard X-ray Scattering (CHX) Beamline at NSLS-II
TUE-P-140	Yifan Ye	Metal/Polymer Interfaces: The Case for Li Electrode with $\pi$ -conjugated Polymers
TUE-P-141	Akira Yoshiasa	Unique temperature dependence of Zr and Ti XANES spectra for para- and ferro-electric perovskite-type compounds
TUE-P-142	Jinchao Yu	Changes in the structure and properties of wet-spun aromatic copolysulfonamide fibers during processing
TUE-P-143	Ke-jin Zhou	Beamline I21 – Resonant Inelastic X-ray Scattering (RIXS) at Diamond Light Source

## Posters, Wednesday July 8

### Advances in X-ray Detectors

Number	Name	Title
WED-P-001	Ladislav Andricek	The DEPFET ultra-fast fine-pitch pixel detector for particle and photon detection
WED-P-002	Shaul Barkan	An Extreme High count Rate Performance with Silicon Drift Detector and ASIC Electronics
WED-P-003	Valentina Bisogni	A CCD detector to achieve ultra high resolution in soft resonant inelastic x-ray scattering
WED-P-004	Stefan Brandstetter	EIGER: DETECTOR SYSTEMS FOR ADVANCED X-RAY STUDIES
WED-P-005	Matthew Carpenter	A Commercial, User-Friendly, Cryogen-Free Superconducting X-ray Detector
WED-P-006	Germán R. Castro	High precision ionization chambers for X-ray absorption station of synchrotron radiation.
WED-P-007	Sudeep Chatterji	Overview of multi-element monolithic germanium detectors for XAFS experiments at Diamond Light Source
WED-P-008	Mingqi Cui	Calibration devices and methods for Soft X-ray Detector at Beijing Synchrotron Radiation Facility (BSRF)
WED-P-009	Alfred Dellapenna	NSLSII Blade X-ray Beam Position Monitor (XBPM) electronics lab and beam tests
WED-P-010	Randy Doriese	A microcalorimeter X-ray spectrometer for NSLS and NSLS-II
WED-P-011	Mengjia Gaowei	Diamond Beam Position monitors – Design, Fabrication and Applications

## Advances in X-ray Detectors, continued

Number	Name	Title
WED-P-012	Gastón García	Characterization of thin transmissive photodiodes for continuous photon flux measurements
WED-P-013	Eva N. Gimenez	Development and first performance tests of a QUAD Schottky CdTe Medi-pix3RX detector with Merlin readout for synchrotron applications
WED-P-014	Fadoua Guezzi-messaoud	Monolithic CMOS pixel sensors for single soft X-ray imaging at synchrotron facilities
WED-P-015	Stephanie Hustache	A large area XPAD hybrid pixel detector with Cadmium Telluride sensor for high energy experiments
WED-P-016	Philip Hart	Characterization of the ePix10k camera at LCLS
WED-P-017	Ryo Hashimoto	Test results of a counting type SOI device for a new X-ray area detector
WED-P-018	Keisuke Inoue	Observation of 67 keV X-rays with a scintillation detector using a proportional-mode APD
WED-P-019	Shunji Kishimoto	A Si-APD linear-array X-ray detector with 10-100 $\mu\text{m}$ spatial and sub-nanosecond time resolution
WED-P-020	Zhenjie Li	Nanosecond time resolution detector based on APD for Synchrotron Radiation ultrafast experiments
WED-P-021	Aldo Mozzanica	The JUNGFRAU pixel detector: characterization of the readout ASIC
WED-P-022	Oliver Müller	Fast Gridded Ionization Chambers with Microsecond Response Time
WED-P-023	Gong Peirong	Application of the X-ray beam position monitor in beamline of the SSRF
WED-P-024	David Pennicard	The LAMBDA pixel detector and hard X-ray experiments
WED-P-025	Hugh Philipp	High-Speed X-ray Imaging Pixel Array Detector for Time-Resolved Experiments at Synchrotron Sources
WED-P-026	Heinrich Riesemeier	Wavelength Dispersive XRF based on an Energy Dispersive pnCCD Detector
WED-P-027	Eduardo Salas	High precision ionization chambers for X-ray absorption station of synchro-tron radiation.
WED-P-028	Elhag Shaban	Mn edge from a tree leaf using 10 cm x 10 cm Double Gas Electron Multiplier (DGEM) Detector as compared to Lytle Detector
WED-P-029	Tim Shea	Ionization Chamber Detector
WED-P-030	Bipin Singh	Fabrication of High Resolution Scintillator Arrays using Laser-induced Optical Barriers
WED-P-031	Daniel Swetz	Making every photon count: high resolution, high efficiency superconducting microcalorimeter detectors for beamline applications
WED-P-032	Mark Tate	High Speed Imaging at High X-ray Energy: CdTe Sensors Coupled To Charge-Integrating Pixel Array Detectors
WED-P-033	Al Thompson	Synchrotron Applications of Large Area CMOS X-ray Detectors
WED-P-034	Gemma Tinti	The EIGER detector systems for the Swiss Light Source
WED-P-035	Johannes Treis	Detector Development
WED-P-036	Joel Weiss	Potential beneficial effects of electron-hole plasmas created in silicon sensors by XFEL-like high intensity pulses for detector development
WED-P-037	Tianyi Zhou	Transmission Mode Pixelated Diamond X-ray Detector

## Advances in X-ray Imaging

Number	Name	Title
WED-P-038	George Belev	High Resolution Micro-Tomography System at Biomedical Imaging and Therapy Facility (BMIT) at the Canadian Light Source
WED-P-039	George Belev	Development of a Grating Based X-ray Interferometer at Biomedical Imaging and Therapy Facility at Canadian Light Source
WED-P-040	Sebastien Berujon	X-ray phase sensing based on near-field speckle
WED-P-041	Anne Bonnin	The energy tunable TOMCAT nanoscope
WED-P-042	Sebastian Cartier	X-Ray Phase Contrast Imaging Using Hybrid Detectors with Single Photon Sensitivity
WED-P-043	Yong Chu	Nanoscale Scanning X-ray Imaging Capabilities of the Hard X-ray Nanoprobe at NSLS-II
WED-P-044	Biao Deng	Hard X-ray microscope at SSRF
WED-P-045	Wenxiang Ding	Diamond-Based Transmission X-ray Imaging Detector – Electronics and Software Design
WED-P-046	Venkateswara Rao Donepudi	Synchrotron-based images of Plants, Seeds, Root architecture, Plant anatomy and the associated Physiology with DEI and DEI-CT systems.
WED-P-047	Venkateswara Rao Donepudi	Cork embedded features with synchrotron-based micro-CT
WED-P-048	Kenneth Finkelstein	High Resolution, Monochromatic X-ray Topography Capability at CHESS
WED-P-049	Alexander Goikhman	Speckle suppressor for coherent x-ray imaging

## Advances in X-ray Imaging, continued

Number	Name	Title
WED-P-050	Maria Harkiolaki	Biological imaging at Diamond: The cryo- transmission soft X-ray microscopy beamline
WED-P-051	Lukas Helfen	Three-dimensional micro- and nano-scale imaging of structure and composition in the life and materials sciences via synchrotron laminography
WED-P-052	Wen Hu	Dynamical artifacts in Bragg coherent diffractive imaging
WED-P-053	Wen Hu	Effect of dynamical diffraction in Bragg coherent diffractive imaging
WED-P-054	Konstantin Ignatyev	3D Chemical Imaging at Diamond Beamline I18
WED-P-055	Takashi Kameshima	A scintillator fabricated by solid-state-diffusion bonding for high-spatial resolution X-ray imaging
WED-P-056	Bernard Kosciuk	Development and Commissioning of an X-Ray Beam Alignment Flag for NSLS-II
WED-P-057	Markus Kraemer	X-ray optics for high lateral resolution
WED-P-058	Barry Lai	Technical Advances of the 2-ID-D X-ray Fluorescence Microprobe at the APS
WED-P-059	Jhih-min Lin	Coherent X-ray scattering beamline at Taiwan Photon Source
WED-P-060	Zsolt Marton	Ultra-Fast Lu3:Ce Scintillators for Hard X-Ray Imaging
WED-P-061	Malte Ogurreck	Latest developments at the nanotomography endstation at the P05 beamline
WED-P-062	Alexander Rack	The refurbished ID19 beamline: a versatile station for synchrotron-based full-field hard X-ray microimaging
WED-P-063	Alexander Rack	ANKAphase software for single-distance phase-retrieval from inline X-ray phase contrast radiographs
WED-P-064	Mario Scheel	The ANATOMIX beamline project at Synchrotron Soleil
WED-P-065	Irina Snigireva	Coherent high energy X-ray microscope for characterization of mesoscopic materials
WED-P-066	Marco Stampanoni	TOMCAT: X-ray tomographic microscopy over several temporal and spatial length scales
WED-P-067	Stanislav Stoupin	Sequential x-ray diffraction topography at 1-BM X-ray Optics Test Beamline at the Advanced Photon Source
WED-P-068	Kazushi Sumitani	Application of high energy X-rays up to 50 keV to imaging measurements at superconducting wiggler beamline BL07 in SAGA Light Source
WED-P-069	Yangchao Tian	The Soft and Medium Photon Energy X-ray Cryo-NanoCT System for Cell Imaging at HLS II
WED-P-070	Yangchao Tian	Quantitative analysis of the reoxidation stability of Ni-Fe anode for solid oxide fuel cells using X-ray nanotomography
WED-P-071	David Vine	The VelociProbe: Ultra-High Resolution Ptychographic Hard X-ray Nanoprobe
WED-P-072	Fabian Wilde	Micro CT at the Imaging Beamline P05 at PETRA III
WED-P-073	Arthur Woll	First Results from the Maia Detector at the Cornell High Energy Synchrotron Source

## Beamline Instrumentation

Number	Name	Title
WED-P-074	Eric Acome	SOLARIS 3-Axis High Load, Low Profile, High Precision Motorized Positioner
WED-P-075	André Beerlink	X-ray Reflectometry and Grazing Incidence SAXS Studies Using Incoatec's Microfocus X-Ray Source IµS
WED-P-076	Mario Birri	Constant Photon Flux on the Sample: Fast X-ray Beam Intensity Stabilization
WED-P-077	Chris Bloomer	An Experimental Evaluation of Monochromatic X-ray Beam Position Monitors at Diamond Light Source
WED-P-078	Michael Bree	Alignment and position visualisation methods for the eight-degrees of freedom, high capacity kappa-goniometer: the MRT-Lift.
WED-P-079	Diane Bryant	A Micromanufactured Diode Beamstop
WED-P-080	Maximilian Bucher	The LAMP-endstation of the Atomic, Molecular, & Optical instrument at the Linac Coherent Light Source
WED-P-081	Huang-yeh Chen	High precise temperature controlled by thermoelectric cooling module in high-vacuum chamber for the X-ray nanoprobe at TPS
WED-P-082	Shnag-jui Chiu	Performance of Active Anti-vibration System for Submicron X-ray Diffraction Beamline at Taiwan Photon Source
WED-P-083	Carles Colldelram	A new UHV micropositioning system for high load
WED-P-084	Frank Eggenstein	Survey and Adjustment Methods Applied on an 11 Axes High Performance Reflectometer for Synchrotron Radiation
WED-P-085	Gerald Falkenberg	Cryogenic chamber for X-Ray Tomography and Element Mapping of Biological Tissue at Petra III, DESY
WED-P-086	Jaime Farrington	Development of Readout Systems for X-ray Diamond Beam Position Monitors
WED-P-087	Ralf Flaig	Upgrade plans for improved beam delivery on the macromolecular crystallography beamline I04 at Diamond Light Source

## Beamline Instrumentation, continued

Number	Name	Title
WED-P-088	Kazimierz Gofron	On-axis X-ray microscopes for beamline applications.
WED-P-089	Marcelo Hönnicke	Conical slit for diffraction assisted X-ray imaging: a path toward an early warning signs technique for breast cancer detection
WED-P-090	Sebastian Kalbfleisch	The Robotic Detector Station of the Hard X-Ray Nanoprobe Beamline at NSLS-II
WED-P-091	Denis Keane	New Experimental Capabilities at DND-CAT, APS Sector 5
WED-P-092	Soonhong Lee	Progress on the Development of the Next Generation X-ray Beam Position Monitors at the Advanced Photon Source
WED-P-093	James Leuenberger Jockel	SmarGon, a commercial multi-axis goniometer for macromolecular crystallography
WED-P-094	Janin Lubeck	Novel UHV instrumentation for the characterization of nanomaterials by SR-based X-ray spectrometry
WED-P-095	Albert Macrander	X-ray Optics Testing Beamline 1-BM at the Advanced Photon Source
WED-P-096	Hiroshi Miyachi	Beamline Front End for In-Vacuum Short Period Undulator at the Photon Factory Storage Ring
WED-P-097	Masato Okui	Double crystal monochromator controlled by integrated computing in BL07A in NewSUBARU, Japan
WED-P-098	Catalin Popescu	In-situ pressure calibration setup for Diamond Anvil Cells by means of ruby fluorescence method
WED-P-099	Stewart Scott	Rapid Prototyping of metal components and its application to synchrotron experiments
WED-P-100	Oliver Seeck	Precision Attenuator for Hard X-Rays
WED-P-101	Igors Sics	MIRAS-Infrared Microspectroscopy beamline at ALBA
WED-P-102	Randy Smith	Cryogenic Sample Environment Development for X-ray Fluorescence Microprobe of Hydrated Systems
WED-P-103	Michael Sprung	Coherence Beamline P10: New Focusing Capabilities
WED-P-104	Benjamin Stripe	Impact of New High Flux Laboratory Systems
WED-P-105	Eric Van Every	High Pressure Cryo-Cooler for X-Ray Crystallography
WED-P-106	Pierre Van Vaerenbergh	An upgrade beamline for combined wide, small and ultra small-angle X-ray scattering at the ESRF
WED-P-107	Ulrich Wagner	Characterising the Large Coherence Length at Diamond's Beamline I13L
WED-P-108	Weihe Xu	A High Precision Instrument for Mapping of Rotational Errors in Rotary Stages
WED-P-109	Hui Yan	Development of CNT-based Smart Tips for Synchrotron Assisted STM
WED-P-110	Mikhail Zhernenkov	Design of Soft Matter Interfaces Beamline at NSLS-II
WED-P-111	Sioan Zohar	In Situ X-ray Position Stabilization via Extremum Seeking Feedback

## Structural Biology & Biomedical Instrumentation

Number	Name	Title
WED-P-112	Dileep Bhogadi	Two Highly Integrated Experimental Stations for Micro-focusing Macromolecular Crystallography (MX) Beamlines at NSLS-II
WED-P-113	Gleb Bourenkov	Micro-focus macromolecular crystallography beamline P14 at PETRA III
WED-P-114	Michele Cianci	EMBL P13 beamline for macromolecular crystallography at PETRA III @DESY, Hamburg, Germany
WED-P-115	Florent Cipriani	NewPin: Towards a new sample holder standard for cryogenic macromolecular x-ray crystallography
WED-P-116	Florian Dworkowski	Kinoform diffractive lens based micro focusing upgrade of the macromolecular crystallography beamline X10SA at the SLS
WED-P-117	James Gorin	Development of Medium Angle X-ray Scattering Capability at the Canadian Macromolecular Crystallography Facility
WED-P-118	Pawel Grochulski	Establishing micro-beam capabilities for Mx at the CLS
WED-P-119	David Hall	Optimising an macromolecular crystallography beamline for experimental phasing – the evolution of I04 at Diamond Light Source
WED-P-120	Daniel Hausermann	Instrumentation for imaging large animals and humans on the Australian Synchrotron Imaging and Medical Beamline
WED-P-121	Akifumi Higashiura	SPring-8 BL44XU, Beamline Designed for a Structure Analysis of Large Biological Macromolecular Assemblies
WED-P-122	Masahiko Hiraki	Development of sample exchange robot PAM-HC for BL-1A and current status of the other robots at the Photon Factory
WED-P-123	Jean Jakoncic	Automation at the Macromolecular Crystallography Beamlines at NSLS-II: Challenges and Opportunities at FMX and AMX
WED-P-124	Jordi Juanhuix	Routine Operation of a Flexible Macromolecular Crystallography Beamline at Alba Synchrotron

## Structural Biology & Biomedical Instrumentation, continued

Number	Name	Title
WED-P-125	Minoru Kubo	Development of On-axis Simultaneous Measurement System of UV-Visible Absorption with X-ray Diffraction at SPring-8
WED-P-126	Katherine Mcauley	Taking control of automation at DLS – developments from Beamline I03
WED-P-127	Uwe Mueller	New experimental station for MX-BL14.2 at HZB-BESSY II
WED-P-128	Jay Nix	Macromolecular Crystallography with a Large Area CMOS Detector
WED-P-129	Didier Nurizzo	Automated data collection services based on RoboDiff at ESRF Massif 1
WED-P-130	Nadja Reimers	The Single Particles, Clusters and Biomolecules & Serial Femtosecond Crystallography Instrument of the European XFEL
WED-P-131	Sergey Stepanov	JBLulce-EPICS control system for macromolecular crystallography: progress report
WED-P-132	Sergey Stepanov	Automated beamline setup and alignment at the GM/CA macromolecular crystallography facility at the APS
WED-P-133	Robert Sweet	A Life-Science and Biomedical Technology Research resource for NSLS-II – LSBR
WED-P-134	Jose Trincão	VMXm: a new sub-micron beamline for macromolecular crystallography at Diamond Light Source
WED-P-135	Go Ueno	Remote access and automation of SPring-8 MX beamlines
WED-P-136	Armin Wagner	The long-wavelength macromolecular crystallography beamline I23 at Diamond Light Source
WED-P-137	Qisheng Wang	Developments at SSRF in Macromolecular Crystallography beamline BL17U1
WED-P-138	Justyna Wojdyla	DA+ and automated data analysis at the Swiss Light Source macromolecular crystallography beamlines
WED-P-139	Yusuke Yamada	In-situ data collection in the Photon Factory macromolecular crystallography beamlines

## Posters, Thursday July 9

### Data Management & Analysis

Number	Name	Title
THU-P-001	Arman Arkilic	metadastore: A flexible data store for NSLS-II beamlines
THU-P-002	Arman Arkilic	filestore: Experiment file tracker for NSLS-II beamlines
THU-P-003	Arman Arkilic	databroker: A Simple Interface for NSLS-II Beamline Experiment Data
THU-P-004	Gerald Falkenberg	PiLC – Raspberry Pi Logic Controller A development of the department FS-EC at DESY, Hamburg
THU-P-005	Ping Liu	Beamline Control and Data Acquisition System for the Phase II Project of SSRF
THU-P-006	Lars Lottermoser	Continuous scans at the high energy materials science beamline HEMS
THU-P-007	Kurtis Nishimura	Design and Performance of the ePix Camera System
THU-P-008	Dieter Schneider	Control and Data Acquisition Systems for the Biomedical Macromolecular Crystallography Beamlines FMX and AMX at NSLS-II
THU-P-009	Benjamin Watts	Developments in STXM Instrument Control Software and Data File Format

### Instrumentation for FEL & DLSR

Number	Name	Title
THU-P-010	Benjamin Erk	CAMP – a Permanent End-Station for Imaging- and Pump-Probe-Experiments at FLASH
THU-P-011	Fabio Frassetto	Grazing-incidence grating compressor for applications to Free-Electron-Lasers
THU-P-012	Ichiro Inoue	Characterization of transverse coherence properties of ultra-intense focused X-ray free-electron laser
THU-P-013	Yifei Jaski	Conceptual Design of Front Ends for the APS MBA Upgrade
THU-P-014	James Kay	Engineering Design and Delivery of the Diamond Double Double Bend Achromat Project
THU-P-015	Jangwoo Kim	X-ray mirror surface metrology using optical and at-wavelength techniques for hard XFEL single-nanometer focusing
THU-P-016	Jie Liu	Tolerance Analyses of a Quadrupole Magnet for Advanced Photon Source Upgrade
THU-P-017	Florian Meneau	CATERETÉ: The Coherent and Time-Resolved X-ray Scattering Beamline at The Brazilian light source SIRIUS

## Instrumentation for FEL & DLSR, continued

Number	Name	Title
THU-P-018	Claude Pradervand	X-Ray Pulse Picker for the SwissFEL
THU-P-019	Mathias Richter	Gas-Monitor Detectors for X-ray Lasers
THU-P-020	Tulio Rocha	IPE - A soft X-ray beamline for in situ spectroscopy at SIRIUS
THU-P-021	Christian Strålman	Preparing the MAX IV Storage Rings for Timing Based Experiments
THU-P-022	Guimei Wang	NSLS-II Storage Ring Insertion Device and Front-End Commissioning

## Microscopy & Nanoprobes

Number	Name	Title
THU-P-023	David Agyeman-budu	Energy-Independent, High Resolution 3D Micro Confocal X-ray Fluorescence with Spoked Channel Arrays
THU-P-024	Bo-yi Chen	Development of Montel KB Mirror Holder for Hard X-ray Nanoprobe
THU-P-025	Yu-chen Karen Chen-wiegart	Process-Property Correlation in Nanoporous and Nano-coating Materials using Submicron Resolution X-ray Spectroscopy (SRX) Beamline of NSLSII
THU-P-026	Ian Coulthard	BioXAS Imaging Beamline at the Canadian Light Source; A Multi-Objective Approach to X-ray Fluorescence Imaging
THU-P-027	Xuewei Du	Construction and Performance of Beamline BL03U at NSRL
THU-P-028	Torben Fischer	The Grain Mapper at high energy materials science beamline HEMS
THU-P-029	Uwe Flechsig	Physical Optics Simulations with PHASE for SwissFEL Beamlines
THU-P-030	Huang-wen Fu	The conceptual design of ARPES beamline at Taiwan Photon Source
THU-P-031	Yujiro Hayashi	Scanning three-dimensional x-ray diffraction microscopy using a high-energy microbeam
THU-P-032	Hee Seob Kim	Design for PAL IR beamline IR extraction mirror manipulator
THU-P-033	Erik Knudsen	McXtrace version 1.2 - new features and possibilities.
THU-P-034	Stefan Kubsky	Wobble measurements on small rotation stages for nanotomography
THU-P-035	Zunping Liu	High-heat-load monochromator options for the resonant inelastic x-ray scattering (RIXS) beamline at the APS with the MBA lattice
THU-P-036	Adrian Mancuso	simS2E: A Source-to-Experiment Simulation of an X-ray Free Electron Laser Single Particle Imaging Experiment
THU-P-037	Kiran Mundboth	High Spatial Resolution Scanning X-ray Strain and Orientation Microscopy
THU-P-038	Takuji Ohigashi	Current Status of Scanning Transmission X-ray Microscopy Beamline at UVSOR-III
THU-P-039	Kenji Sakurai	Projection-type XRF/XAFS micro imaging with polarized beam
THU-P-040	Igors Sics	The ALBA spectroscopic LEEM-PEEM experimental station
THU-P-041	Yi-jr Su	Design of the Soft X-ray Tomography Beamline at the Taiwan Photon Source
THU-P-042	Yasuo Takeichi	Soft X-ray spectromicroscopy using compact scanning X-ray microscope at the Photon Factory
THU-P-043	Andrew Walters	Minimising distortions and vibrations of the cooled optics at the future I21 RIXS beamline at Diamond Light Source
THU-P-044	Qiuping Wang	A general wavelength calibration method for variable included angle grating monochromators
THU-P-045	Hengzi Wang	Thermal Management of the Cryogenically Cooled Double Laue Monochromator for the XPD beamline at NSLS II
THU-P-046	Garth Williams	Early days at the sub-micron resolution x-ray spectroscopy beamline
THU-P-047	Hanfei Yan	Scanning hard x-ray microscopy in sub-20 nm regime using multilayer Laue lens: capabilities and limitations
THU-P-048	Guobin Zhang	Design of an aberration corrected holographic grating for Seya-namioka monochromator used on synchrotron radiation facility

## New Facilities

Number	Name	Title
THU-P-049	Alfred Baron	Steering a course to use series IDs with inter-ID steering
THU-P-050	Dana Capatina	DCS - a high flux beamline for time resolved dynamic compression science
THU-P-051	Yngve Cerenius	Beamlines on MAXIV

## New Facilities, continued

Number	Name	Title
THU-P-052	Julio Criginski Cezar	SABIA@SIRIUS: the future soft X-ray beam line of the new Brazilian syn-chrontron source dedicated to surfaces and interfaces studies
THU-P-053	Dayane Chaves	Magnetic imaging using Photoelectron Emission Microscopy (PEEM) at the LNLS U11-PGM beam line
THU-P-054	Hui-fang Chuang	Bending magnet MTR-EXAFS beamline at Taiwan Photon Source
THU-P-055	Daniela Coelho De Oliveira	QUATI: The proposed Quick-EXAFS beamline for Sirius
THU-P-056	Les Dallin	Towards a 4th Generation Storage Ring at the Canadian Light Source
THU-P-057	Martin Dommach	Installation of the European XFEL Photon Vacuum System
THU-P-058	Wolfgang Drube	The PETRA III Extension
THU-P-059	Philippe Fontaine	SIRIUS: a Multipurpose Scattering and Spectroscopy Beamline in the Tender x-ray Range devoted to the Study of Solid and Liquid Surfaces at the SOLEIL Synchrotron.
THU-P-060	Adam Freeman	I20-scanning branch – a Versatile XAS beamline at Diamond Light Source
THU-P-061	Hiroyuki Hama	SLiT-J, a 3 GeV High Brilliant Light Source Project
THU-P-062	Tohru Honda	Vacuum System of the Compact Energy Recovery Linac
THU-P-063	Yu-shan Huang	Beamline Plan at Taiwan Photon Source
THU-P-064	Nicolas Jaouen	Status of the SEXTANTS beamline at SOLEIL: a facility for elastic, inelastic and coherent scattering of soft x-rays
THU-P-065	Ignace Jarrige	Extreme Stability for Extreme Energy Resolution at the SIX Beamline at NSLS-II
THU-P-066	Cherno Jaye	NIST's Soft and Tender Spectroscopy and Microscopy NSLS-II Beamline
THU-P-067	Pavle Juranic	Temporal Diagnostics Developments for SwissFEL
THU-P-068	Namdong Kim	Soft X-ray Nanoscopy Beamline for Nano- and Bio-materials Research at the Pohang Light Source
THU-P-069	Bongsoo Kim	Introduction of PALXFEL
THU-P-070	William Leonhardt	Mechanical Design of the SIX Beamline End Station at NSLS-II
THU-P-071	Zhongliang Li	Study of high stability support for high accuracy XBPM at SSRF
THU-P-072	Zheshen Li	The new AU-IR beamline at ADTRID2
THU-P-073	Jae-hong Lim	Bio Medical Imaging beamline 6C of Pohang Light Source-II
THU-P-074	Jae-hong Lim	X-ray topography at the Pohang Light Source-II
THU-P-075	Frederico Lima	A Superconducting Wiggler Beamline for X-ray Diffraction and Absorption at High Energies at the Brazilian Synchrotron
THU-P-076	Mirko Milas	New Sample Preparation and Analytic Facilities at the PGM Beam-line at LNLS
THU-P-077	Akira Nambu	Current Status of New Beamline PF BL-2B
THU-P-078	Takamasa Nonaka	Toyota Beamline (BL33XU) at SPring-8
THU-P-079	Paul Northrup	NSLS-II TES: a tender-energy (1-8 keV) microprobe for spatially-resolved EXAFS and XRF imaging: initial results from commissioning at NSLS
THU-P-080	Dmitri Novikov	Design of the Russian-German Nanodiffraction Beamline at PETRA III Extension
THU-P-081	Tomas Plivelic	The CoSAXS project at MAX IV laboratory: A Small Angle X-ray Scattering Beamline to Study Structure and Dynamics
THU-P-082	Mathias Richter	Metrology with Synchrotron Radiation at PTB
THU-P-083	Horst Schulte-schrepping	Photon Beamline Frontends for the PETRA III Extension Project
THU-P-084	Sergei Seletskiy	Commissioning of the Synchrotron Radiation Protection System and Beamlines Frontends at NSLS-II
THU-P-085	Peter Sjöblom	Motion Control System of MAX IV Laboratory Soft x-ray Beamlines
THU-P-086	Narcizo Souza-neto	EMA beamline at SIRIUS: Extreme condition x-ray Methods of Analysis
THU-P-087	Ian Thorpe	High energy density (HED) instrument at the European XFEL
THU-P-088	Helio Tolentino	The conceptual design of the Coherent Nanofocus Beamline (CARNAUBA) for the Sirius storage ring
THU-P-089	Jens Viefhaus	Status and Future Directions at the Variable Polarization XUV Beamline P04 at PETRA III
THU-P-090	Herman Winick	Light Source Facility for Sub-Saharan Africa
THU-P-091	Wei Xu	Nuclear Resonant Scattering program of High Energy Photon Source in China
THU-P-092	Lin Yang	Status of the Life Science X-ray Scattering beamline at NSLS-II
THU-P-093	Hongjun Zhou	Development of online Small Ionization Chamber

## Soft X-ray Optics & Instrumentation

Number	Name	Title
THU-P-094	Teak Boyko	Soft X-ray Endstation Development: Ambient Pressure, Liquid Cells, Laser Heating, and Filtered Detectors
THU-P-095	Maria Brzhezinskaya	The X-ray microscopy beamline UE30-XM at BESSY-II
THU-P-096	Jiefeng Cao	Optimization of the beamline design for source with fast switching polarizations
THU-P-097	Leifeng Cao	Progress on the development of single-order diffraction grating for soft x-rays
THU-P-098	Liangliang Du	Two-dimensional groove density measurement for gratings by diffraction method
THU-P-099	James Dynes	Cleaning Carbon Deposited Optics on Soft X-ray Beamlines using a H <sub>2</sub> -Ar Plasma
THU-P-100	Tatjana Giessel	Soft X-ray beamline components for low effective slope error and high positioning repeatability
THU-P-101	Tadashi Hatano	VUV and soft X-ray reflectometry beamline at the Photon Factory
THU-P-102	Stefan Hendel	The EMIL project at BESSY II: beamline design, performance and first commissioning results
THU-P-103	Takashi Imazono	Experimental evaluation of enhancement of diffraction efficiency by overcoating diamond-like-carbon (DLC) on soft X-ray laminar-type gratings
THU-P-104	Takashi Imazono	Development of a flat-field spectrometer with a wideband Ni/C multilayer grating in the 1–3.5 keV range
THU-P-105	Masato Koike	Enhancement of diffraction efficiency of laminar-type diffraction gratings overcoated with diamond-like-carbon (DLC) in soft X-ray region
THU-P-106	Bruce Lairson	Large X-ray Pressure Windows without Beryllium
THU-P-107	William Leonhardt	Conceptual Design of a Triple Rotating Flange System to Provide a Variable Angle Outlet Port on a Soft X-ray Scattering Sample Chamber
THU-P-108	Kazuhiko Mase	In situ removal of carbon contamination from chrome-coated optics to realize high flux radiation without higher harmonics in the carbon K-edge region
THU-P-109	Hideki Nakajima	Commissioning of the Soft X-ray Undulator Beamline at the Siam Photon Laboratory
THU-P-110	Josep Nicolas	Carbon cleaning rates by low-pressure RF plasma as a function of RF power and distances and their applications to soft x-ray optical gratings
THU-P-111	François Polack	Performance of the Deimos Beamline of SOLEIL in the 1 – 2.8 keV Range with the newly installed Mo/B4C Multilayer Grating
THU-P-112	François Polack	Multilayer grating and mirror for the 1.4 – 4 keV monochromator of Sirius Beamline at SOLEIL
THU-P-113	Rami Sankari	Multilayer based EUV polarimeter at MAX IV Laboratory
THU-P-114	Frank Scholze	EUV Metrology for Industrial Applications
THU-P-115	Yasunori Senba	Upgrade of BL25SU for soft X-ray imaging and spectroscopy of solid using nano- and micro-focused beams at SPring-8
THU-P-116	Igors Sics	Optical pseudomotors for plane grating monochromator beamlines
THU-P-117	Igors Sics	Carbon cleaning rates by low-pressure RF plasma as a function of RF power and distances and their applications to soft x-ray optical gratings
THU-P-118	Samuli Urpelainen	Ambient Pressure XPS at the MAX IV Laboratory
THU-P-119	Tony Warwick	MAESTRO: A new undulator beamline facility for high resolution nanoARPES at the Advanced Light Source

## Time-Resolved Methods

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THU-P-120	Mickey Chiu	X-ray Beam Timing with Diamond and DRS4
THU-P-121	Shirish Chodankar	Unified Microfluidic Mixer at LIX Beamline for Time Resolved Studies of Biomolecular Structural Dynamics
THU-P-122	Andrei Fluerasu	X-ray Speckle Visibility Spectroscopy: Measuring Fast Dynamics with Slow Pixelated Detectors
THU-P-123	Ronald Frahm	Design of weak link channel-cut crystals for fast oscillating QEXAFS monochromators
THU-P-124	Gerhard Ingold	SwissFEL Instrument ESB: Femtosecond Pump-Probe Diffraction and Scattering
THU-P-125	Yasuhiro Niwa	Development of nanosecond time-resolved Dispersive XAFS system of irreversible phenomena
THU-P-126	Chih-wen Pao	Millisecond Time-Resolved EXAFS beamline at Taiwan Photon Source
THU-P-127	Donald Walko	Developments in Time-Resolved X-ray Research at APS Beamline 7ID

## X-ray Spectroscopy

Number	Name	Title
THU-P-128	Monica Amboage	I20-EDE: Energy-Dispersive EXAFS beamline at Diamond Light Source
THU-P-129	Burkhard Beckhoff	Reference-free nanomaterials characterization by X-ray spectrometry
THU-P-130	Günter Brenner	The high-resolution VUV Raman spectrometer at FLASH
THU-P-131	Raymond Browning	Vector Potential Photoelectron Microscopy
THU-P-132	Thomas Büning	Combination of a flat-sheet liquid jet with a von Hamos spectrometer for time-resolved hard x-ray spectroscopy at European XFEL
THU-P-133	Sang Wan Cho	Molecular orientation studies of HATCN as function of thickness using X-ray absorption spectroscopy
THU-P-134	Zou Finrock	Upgraded Time-Resolved XEOL Capability at the Advanced Photon Source Sector 20
THU-P-135	Roger Goldsbrough	Testing Xspress 3 with Vortex SDD detectors
THU-P-136	Masahito Niibe	Low energy soft X-ray emission spectrometer at BL09A in NewSUBARU
THU-P-137	Masahito Niibe	Development of the X-ray Absorption Fine Structure Measurement Technique for the Insulator in Total Electron Yield Mode
THU-P-138	Changyong Park	Integration of micro-X-ray diffraction and X-ray absorption spectroscopy for high-pressure research using diamond anvil cells with beryllium gaskets
THU-P-139	Stefan Schuppler	Strain-dependent XMCD from (Sr,Ca)RuO <sub>3</sub>
THU-P-140	Yuri Shvydko	0.1-meV-Resolution Broadband Imaging Spectrographs for Inelastic X-ray Scattering
THU-P-141	Paul Thompson	Low energy X-ray Spectroscopy for Chemistry Applications on the XMaS Beamline.
THU-P-142	Delphine Vantelon	Implementation of a Multilayer Grating Monochromator on LUCIA, the tender X-ray beamline of SOLEIL
THU-P-143	Preeti Vodnala	Radiation Limits to XPCS Studies of Protein Dynamics
THU-P-144	Xiangjun Wei	Study the stratified structures of different paintings in Forbidden City
THU-P-145	Lai Wei	A conceptual design of non-harmonic soft x-ray beam line at BSRF
THU-P-146	Flora Yakhou-harris	Soft X-rays at ESRF: a new beamline for spectroscopic studies with polarised light
THU-P-147	Zuhua Yang	A Concept Design of A Monochromator Based on A Linear Varying Grating
THU-P-148	Jing Zhang	Grazing Incidence X-ray Absorption Spectroscopy in Beijing Synchrotron Radiation Facility and Its Application in the Structure Characteristics of Thin Films
THU-P-149	Chongwen Zou	Decoupling the Lattice Distortion and Charge Doping Effects on the Phase Transition Behavior of VO <sub>2</sub> by Titanium (Ti <sup>4+</sup> ) Doping





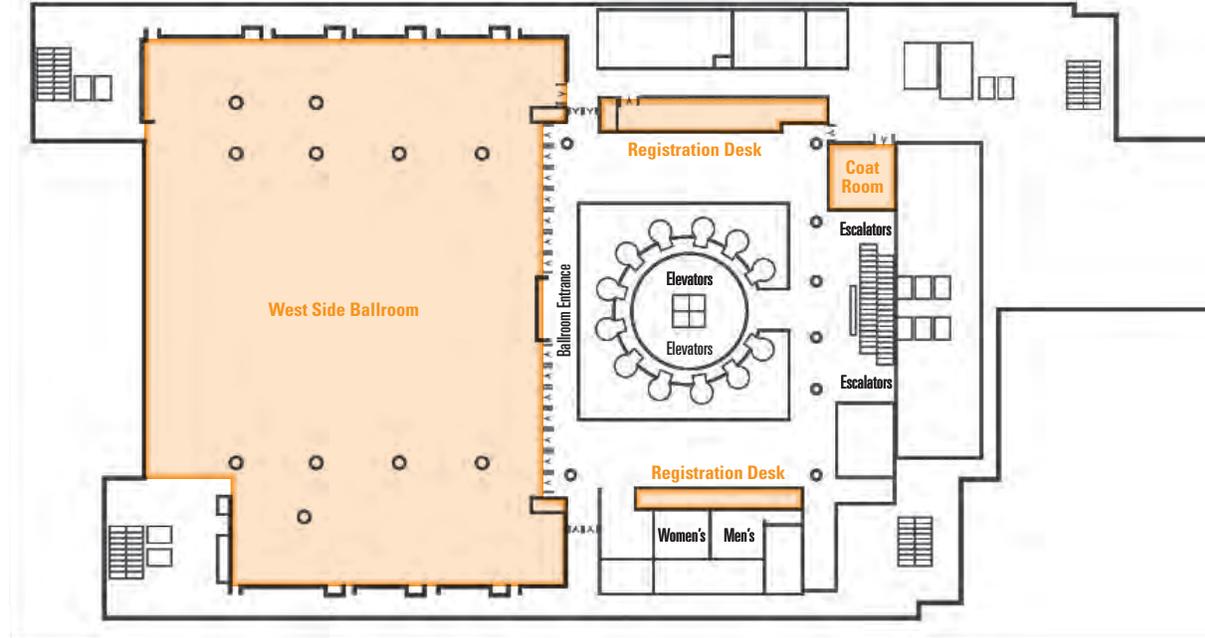




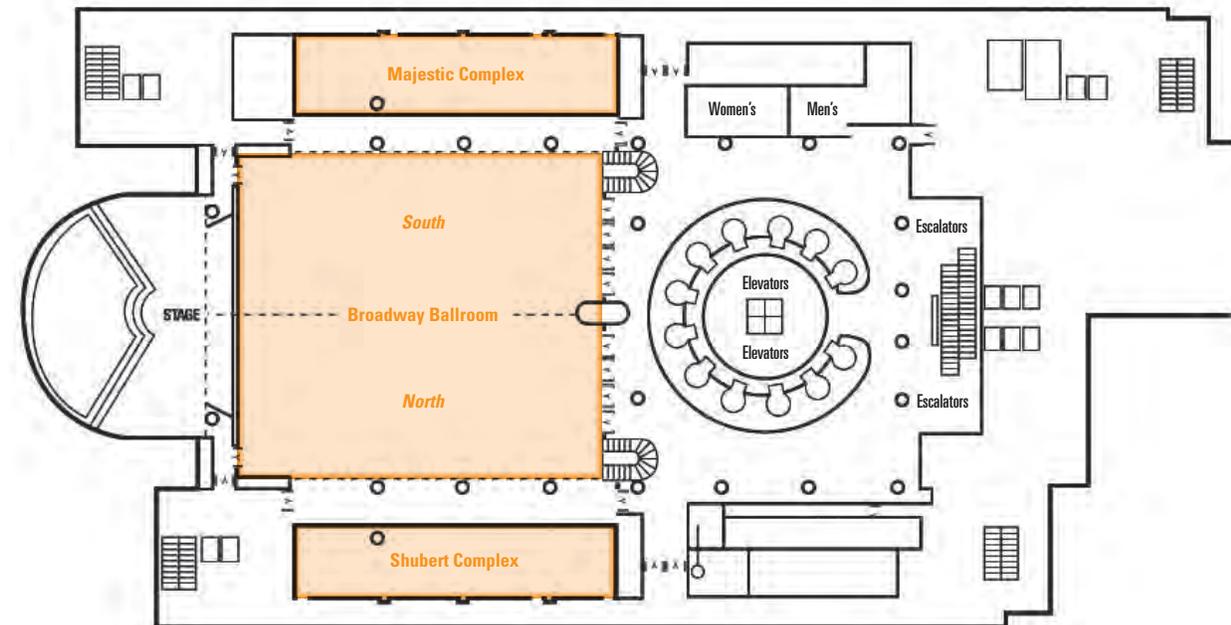


# Maps

Fifth Floor



Sixth Floor



Eighth Floor

