

### Confirmed Invited Speakers

- Martin Äschlimann (TU Kaiserslautern)
- Olle Björneholm (Uppsala Universitet)
- Sergey Borisenko (IFW Dresden)
- Steven Bradforth (University of Southern California)
- Artur Braun (EMPA)
- Matthew Brown (ETH Zürich)
- Richard Buchner (Universität Regensburg)
- Bernd Büchner (IFW Dresden)
- Andrea Cavalleri (Max Planck Institute for the Structure and Dynamics of Matter)
- Serena de Beer (MPI für Chemische Energiekonversion / Cornell University)
- Ralph Ernstorfer (Fritz-Haber-Institut)
- Claudia Felser (MPI for Chemical Physics of Solids)
- Yoshihisa Harada (University of Tokyo)
- Peter Hegemann (Humboldt Universität zu Berlin)
- Georg Held (University of Reading / Diamond Light Source)
- Laura Herz (University of Oxford)
- Stephen Hill (Florida State University / National High Magnetic Field Laboratory)
- Antoine Kahn (Princeton University)
- Jan Kern (Lawrence Berkeley National Laboratory)
- Maya Kiskinova (Elettra-Sincrotrone Trieste)
- Mathias Kläui (JGU Mainz)
- Wolfgang Kuch (Freie Universität Berlin)
- Andrea Lübcke (Max-Born-Institut)
- Kai Rossnagel (Cristian-Albrechts-Universität zu Kiel)
- Eli Rotenberg (Lawrence Berkeley National Laboratory)
- Mark Sherwin (University of California)
- Arno Smets (Delft University of Technology)
- Vladimir Strocov (Paul Scherrer Institute)
- Hao Tjeng (Max Planck Institute for Chemical Physics of Solids)
- Christian Tusche (Max Planck Institute of Microstructure Physics)
- Gerrit van der Laan (Diamond Light Source / STFC)
- Lada Yashina (Moscow State University)

### Scientific Committee

Norbert Koch, Oliver Rader, Alexander Schnegg,  
Christian Schübler-Langeheine, David Starr, Antje Vollmer,  
Philippe Wernet, Eugen Weschke

### Meeting Venue

Helmholtz-Zentrum Berlin für  
Materialien und Energie GmbH  
Albert-Einstein-Strasse 15  
12489 Berlin  
Tel +49 - 30 - 80 62 - 12999



[www.helmholtz-berlin.de](http://www.helmholtz-berlin.de)

## THz TO SOFT X-RAY WORKSHOP

BESSY II

December 7 - 8, 2015  
Berlin-Adlershof

### CONTACT

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Further information and updates can be found at

[www.helmholtz-berlin.de/user/workshops/thz-soft-x-ray/](http://www.helmholtz-berlin.de/user/workshops/thz-soft-x-ray/)



# THE CORE COMPETENCE OF BESSY II: PHOTONS FROM THz TO SOFT X-RAYS

Covering resonance energies of oxygen, nitrogen, carbon, and 3d transition metals, soft X-ray photons provide element specificity and unravel the local electronic structure of materials in energy research, magnetism, spintronics, electron correlations, (surface) chemistry and catalysis. VUV photoelectron spectroscopy is at the heart of connecting electronic band structure with macroscopic properties. Infrared light is especially helpful to investigate biological systems as well as vibrational, structural and electronic properties of liquids, solids, surfaces and thin layers while coherent THz radiation is unique for magnetic resonance spectroscopy.

BESSY II offers a range of photon energies to study materials with future impact in challenging fields such as efficient energy conversion, information technology, as well as catalysis and life sciences.

The scope of the workshop is to present achievements and perspectives of the various fields, and to foster discussion about future requirements for source and instrumentation to exploit synchrotron radiation from THz to soft X-rays.



## Programme

First Day, Monday 7 <sup>th</sup> of December		
Registration (BESSY II Foyer)		08:45
Welcome	Anke Kaysser-Pyzalla, HZB	09:15
Overview Talks, BESSY II Lecture Hall		
<b>Energy Research</b>	Maya Kiskinova, <i>Elettra-Sincrotrone Trieste</i>	09:30
<b>Solution Chemistry</b>	Steven Bradforth, <i>University of Southern California</i>	10:00
<b>Magnetism</b>	Gerrit van der Laan, <i>Diamond Light Source</i>	10:30
Coffee Break		11:00
<b>Correlated Materials</b>	Bernd Büchner, <i>IFW Dresden</i>	11:30
<b>Life Science</b>	Peter Hegemann, <i>HU Berlin</i>	12:00
<b>Spintronics</b>	Jean-Marc Triscone, <i>University of Geneva</i>	12:30
Lunch Break (BESSY II Foyer)		13:00
Topical Sessions		
<b>Energy Research BESSY II Lecture Hall</b>	<b>Magnetism „Kino“ Building 13.10</b>	
Laura Herz, <i>University of Oxford</i>	Stephen Hill, <i>Florida State University</i>	14:00
Lada Yashina, <i>Moscow State University</i>	Wolfgang Kuch, <i>FU Berlin</i>	14:30
Antoine Kahn, <i>Princeton University</i>	Martin Äschlimann, <i>TU Kaiserslautern</i>	15:00
Coffee Break		15:30
Arno Smets, <i>Delft University of Technology</i>	Claudia Felser, <i>MPI for Chemical Physics of Solids</i>	16:00
Artur Braun, <i>EMPA</i>	Mathias Kläui, <i>JGU Mainz</i>	16:30
Georg Held, <i>Diamond Light Source</i>	Christian Tusche, <i>MPI of Microstructure Physics</i>	17:00
Ideas, Suggestions and Requirements concerning beam, instrumentation and sample environment		17:30
Dinner - Poster Session (BESSY II Foyer)		18:00

## Second Day, Tuesday 8<sup>th</sup> of December

Topical Sessions		
<b>Spintronics BESSY II Lecture Hall</b>	<b>Solution Chemistry „Kino“ Building 13.10</b>	
NN	Richard Buchner, <i>Universität Regensburg</i>	09:00
Kai Rossnagel, <i>CAU Kiel</i>	Matthew Brown, <i>ETH Zürich</i>	09:30
Coffee Break		10:00
Eli Rotenberg, <i>Lawrence Berkeley National Laboratory</i>	Yoshihisa Harada, <i>University of Tokyo</i>	10:20
Vladimir Strocov, <i>Paul Scherrer Institute</i>	Olle Björneholm, <i>Uppsala Universitet</i>	10:50
Ideas, Suggestions and Requirements concerning beam, instrumentation and sample environment		11:20
Topical Sessions		
<b>Correlated Materials BESSY II Lecture Hall</b>	<b>Life Science „Kino“ Building 13.10</b>	
Ralph Ernstorfer, <i>Fritz-Haber-Institut</i>	Serena de Beer, <i>MPI für Chemische Energiekonversion</i>	11:45
Andrea Cavalleri, <i>MPI for the Structure and Dynamics of Matter</i>	Mark Sherwin, <i>University of California</i>	12:15
Lunch Break (BESSY II Foyer)		12:45
Sergey Borisenko, <i>IFW Dresden</i>	Jan Kern, <i>Lawrence Berkeley National Laboratory</i>	13:45
Hao Tjeng, <i>MPI for Chemical Physics of Solids</i>	Andrea Lübcke, <i>Max-Born-Institut</i>	14:15
Ideas, Suggestions and Requirements concerning beam, instrumentation and sample environment		14:45
Coffee Break (BESSY II Foyer)		15:05
Into the Future, BESSY II Lecture Hall		
BESSY II Accelerator Instrumentation	Andreas Jankowiak, <i>HZB</i>	15:30
BESSY II Photon Science Instrumentation	Alexander Föhlisch, <i>HZB</i>	16:00
General Discussion and Summary		16:30
End of the Workshop		17:00
Visit of BESSY II		