

# 11th Joint BER II and BESSY II User Meeting



Dec. 4<sup>th</sup> to Dec. 6<sup>th</sup> 2019

WISTA-Centre/BESSY II, Berlin-Adlershof and Lise-Meitner-Campus, Berlin-Wannsee

## Wednesday, December 4th, 2019: Young Scientists and Neutron Day

Lise-Meitner Campus  
Hahn-Meitner-Platz 1  
14109 Berlin

<b>13:00 – 16:00</b>	<b>Registration</b>		(LMC-Foyer and Café Jahn)
<b>13:30 – 15:15</b>	<b>Young Scientists Session</b>	<i>(Chair: Susan Schorr)</i>	(Lecture Hall)
13:30	<i>Jan Lüning (HZB)</i>		
	<b>Opening</b>		
13:45	<i>Margarita Russina (HZB)</i>		
	<b>NEAT</b>		
14:00	<i>Leonie Heinze (TU Braunschweig, Germany)</i>		
	<b>High magnetic field studies on atacamite, <math>\text{Cu}_2\text{Cl}(\text{OH})_3</math>, a model compound for the <math>S = 1/2</math> sawtooth chain</b>		
14:15	<i>Heiko Trepka (MPI Stuttgart, Germany)</i>		
	<b>Critical magnetic fluctuations in <math>\text{Ca}_2\text{RuO}_4</math> studied by neutron triple-axis spectroscopy</b>		
14:30	<i>Stephan Allenspach (PSI, Switzerland)</i>		
	<b>Dimensionality of <math>\text{BaCuSi}_2\text{O}_6</math> studied by Neutron Diffraction on HFM/EXED</b>		
14:45	<i>Galina Gurieva (HZB)</i>		
	<b>Cu/Zn disorder vs. solar cell efficiency: the <math>\text{Cu}_2\text{ZnSn}(\text{S}_x\text{Se}_{1-x})_4</math> monograin case</b>		
15:00	<i>Anderson Sepulveda (Federal University of ABC, Brazil)</i>		
	<b>Title to be announced</b>		
<b>15:15 – 15:45</b>	<b>Coffee Break</b>		(Café Jahn)
<b>15:45 – 18:00</b>	<b>Farewell from BER II</b>	<i>(Chair: Jan Lüning)</i>	(Lecture Hall)
	<i>Jan Lüning (HZB)</i>		
	<b>Introduction</b>		
	<i>Astrid Schneidewind (Komitee Forschung mit Neutronen)</i>		
	<b>Welcoming Words</b>		
	<i>Bernd Smarsly (Universität Giessen, Germany)</i>		
	<b>20 years of neutron scattering – insights into nanostructured <math>\text{SiO}_2</math> and carbon</b>		
	<i>Ingo Manke (HZB)</i>		
	<b>Science with Neutrons and Tomography</b>		
	<i>Peter Smeibidl (HZB)</i>		
	<b>Neutron experiments under extreme conditions: Sample Environment</b>		
	Sparkling Wine Reception		
<b>18:00-22:00</b>	<b>Farewell Party: Poster Session &amp; Buffet</b>		(LMC-Foyer and Café Jahn)

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Thursday, December 5th, 2019:

Science Day

Wilhelm-Conrad-Roentgen Campus  
Albert-Einstein-Str. 15  
Rudower Chaussee 17  
12489 Berlin

09:00 – 16:00 Vendor Exhibition

WISTA Centre

08:30 – 16:30 Registration

WISTA Centre

15:00 – 18:30 Poster Set-up (BESSY II - experimental hall)

09:30 – 09:40 Opening

*Bernd Rech (HZB)*

Bunsen Auditorium

09:40 – 10:10 Key Note Lecture *(Chair: Manfred Weiss)*

*Gert Weber (Universität Greifswald/HZB, Germany)*

**Structural basis of enzymatic plastic degradation - *en route* to a sustainable circular economy**

10:10 – 10:20 *Tribute to Sergey Troyanov for 2000 solved structures at MX@BESSY II*

10:20 – 10:50 Coffee Break and Vendor Exhibition

WISTA Centre

10:50 – 12:30 Oral Presentations I *(Chair: Marcus Bär)*

Bunsen Auditorium

10:50 *Sebastian Wintz (PSI, Switzerland and HZDR, Germany)*

**Spin textures and spin waves as seen by X-ray microscopy**

11:10 *Wolfgang Kuch (Freie Universität Berlin, Germany)*

**Manipulating magnetic domains by single ultrashort laser pulses**

11:30 *Ute Cappel (KTH - Royal Institute of Technology, Sweden)*

**Stability of perovskite materials for solar cells investigated with photoelectron spectroscopy**

11:50 *Artiom Magomedov (Kaunas University of Technology, Lithuania)*

**Self-Assembled Hole Transporting Monolayer for Highly Efficient Perovskite Solar Cells**

12:10 *Janina Kneipp (Humboldt Universität zu Berlin, Germany)*

**Plasmonic nanoparticle probes in cells: Insights from X-ray tomography**

12:30 – 13:30 Lunch Break

(Canteens on site)

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<b>13:30 – 15:10</b>	<b>Oral Presentations II</b> <i>(Chair: Christian Papp)</i>	Bunsen Auditorium
13:30	<i>Martin Hennecke (Max-Born-Institut Berlin, Germany)</i> <b>Angular Momentum Flow During Ultrafast Demagnetization of a Ferrimagnet</b>	
13:50	<i>Travis Jones (Fritz-Haber-Institut Berlin, Germany)</i> <b>The Electronic Structure of Iridium Oxyhydroxides during Electrocatalytic Oxygen Evolution</b>	
14:10	<i>Phil Mason (Czech Academy of Science, Czech Republic)</i> <b>Almost the Weirdest Thing in the Universe Meets BESSY</b>	
14:30	<i>Simon Krause (University of Groningen, Netherlands)</i> <b>X-rays and neutrons shed light on negative gas adsorption mechanism in flexible metal-organic frameworks</b>	
14:50	<i>Astrid Brandt (HZB)</i> <b>Unveiling Hidden Secrets: Cultural Heritage Studies at HZB – A Selection</b>	
<b>15:10 – 15:20</b>	<b>Report from the User Committee and the ESUO</b>	Bunsen Auditorium
<b>15:20 – 15:50</b>	<b>Coffee Break and Vendor Exhibition</b>	WISTA Centre
<b>15:50 – 17:00</b>	<b>Bestowal of Prizes: Friends of Helmholtz-Zentrum Berlin e.V.</b> <i>(Chair: M. Richter)</i>	Bunsen Auditorium
<b>17:00 – 18:30</b>	<b>Public Lecture</b> <i>Panel and General Discussion on the Climate Challenge</i> <b>Volker Quaschnig, Scientists for Future (HTW Berlin)</b> <b>Clara Mayer, Fridays for Future</b> <b>Bernd Rech (HZB)</b>	Bunsen Auditorium
<b>18:30 – 20:00</b>	<b>Poster Session</b>	(BESSY II Experimental Hall)
<b>20:00</b>	<b>“Green” Buffet</b> (sponsored by the companies participating in the vendor exhibition)	(BESSY II Foyer)

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Friday, December 6th, 2019 :

**Young Scientists and Synchrotron Day**

Wilhelm-Conrad-Roentgen Campus  
Albert-Einstein-Str. 15  
Rudower Chaussee 17  
12489 Berlin

**8:30 – 10:00 Registration**

WISTA Centre

**9:00 – 12:30 Vendor Exhibition**

WISTA Centre

**9:00 – 10:30 Synchrotron Session** (Chair: Christian Jung)

Bunsen Auditorium

9:00 *Bernd Rech/Jan Lüning (HZB)*

**Welcome**

9:10 *Jan Lüning (HZB)*

**BESSY II: Photon Science**

9:30 *Andreas Jankowiak (HZB)*

**Accelerator - Operation, Development and BESSY VSR & bERLinPro**

9:50 *Ioanna Mantouvalou (TU Berlin)*

**From synchrotron into the lab and back**

10:10 *Jens Viefhaus (HZB)*

**BESSY II – beamline maintenance and modernization**

**10:30 – 10:40 General Discussion**

Bunsen Auditorium

**10:40 – 11:00 Coffee Break**

WISTA Centre

**11:00 – 12:30 Young Scientists Session** (Chair: Carolin Schmitz-Antoniak)

Bunsen Auditorium

11:00 *Katrin Fürsich (MPI FKF Stuttgart, Germany)*

**Interface Induced Structural and Magnetic Reconstructions in NdNiO<sub>3</sub> Thin Film Structures**

11:15 *Heidi Therese Hillier (University of Tromsø, Norway)*

**Enzymes in the ectoine biosynthesis pathway**

11:30 *Alice Dupont Juhl (University of Southern Denmark, Denmark)*

**Analysis of Nieman Pick C2 Protein in Regulation of Intracellular Membrane Transport by Combined and Correlative Fluorescent and Soft X-ray Microscopy**

11:45 *Maxim Rabchinskii (Ioffe Institute St Petersburg, Russian Federation)*

**Graphene chemical derivatives and functionalized carbon nanodots: from synthesis to applications**

12:00 *Raphael Jay (Universität Potsdam, Germany)*

**Charge distributions of iron photosensitizers probed with L-edge spectroscopies**

12:15 *Ludvig Kjellsson (Uppsala University, Sweden)*

**X-ray absorption spectroscopy of the N<sub>2</sub><sup>+</sup> molecular cation**

**12:30 Poster Prize and Closing Remarks**

**12:40**

**Traditional curried sausage**

WISTA Centre