







StEM Workshop at Ringberg Castle, Lake Tegernsee, Germany  
January 18 - 20, 2017

## Programme

Wednesday, January 18, 2017	
15:00 – 15:10	Opening and Welcome Peter A. van Aken
	<b>Special topic: Time-resolved microscopy</b> <b>Chair: Peter van Aken</b>
15:10 – 15:40	Peter Hommelhoff/Martin Kozak <i>Electron–matter interaction at short times</i>
15:40 – 16:10	Nahid Talebi <i>Beyond Wolkow states and undepleted pump approximation: Full-wave analysis</i>
16:10 – 16:40	Coffee break and posters 
16:40 – 17:10	Ralph Ernstorfer <i>Ultrafast point-projection electron imaging and diffraction</i>
17:10 – 17:40	Sascha Schäfer <i>Ultrafast TEM</i>
18:00	Dinner

Thursday, January 19, 2017	
	<b>Special topic: Time-resolved microscopy</b> <b>Chair: Nahid Talebi</b>
<b>09:00 – 09:30</b>	Petra Gross <i>Electron emission from sharp gold nanotips for ultrafast electron point projection microscopy</i>
<b>09:30 – 10:00</b>	Florian Banhart <i>Stroboscopic and single-pulse electron dynamics in an ultrafast electron microscope</i>
<b>10:00 – 10:30</b>	Angus Kirkland <i>Recent developments in detectors for electron microscopy</i>
<b>10:30 – 11:00</b>	Coffee break and posters 
	<b>Various 1</b> <span style="float: right;"><b>Chair: Wilfried Sigle</b></span>
<b>11:00 – 11:30</b>	Jo Verbeeck <i>Beam-shaping experiments in the TEM</i>
<b>11:30 – 12:00</b>	Josef Zweck <i>Differential phase contrast: Chances and pitfalls</i>
<b>12:30</b>	Lunch

Thursday, January 19, 2017	
	<b>Applications of EELS I</b> <span style="float: right;"><b>Chair: Vesna Srot</b></span>
<b>14:00 – 14:30</b>	Quentin Ramasse <i>EELS at sub-100 meV resolution in real and momentum space</i>
<b>14:30 – 15:00</b>	Gianluigi Botton <i>Electron Energy Loss with High Spatial and High Energy Resolution in Functional Materials</i>
<b>15:00 – 15:15</b>	Ekin Simsek Sanli <i>Microstructure control for thin-film solar cells</i>
<b>15:15 – 15:30</b>	Yi Wang <i>Atomically resolved EELS elemental and fine structure mapping using multiple frames and energy drift correction</i>
<b>15:30 – 15:45</b>	Herbert Schmid <i>Quantitative EELS analysis on Ce-YSZ interfaces</i>
<b>15:45 – 16:15</b>	Coffee break and posters 
	<b>Applications of EELS II</b> <span style="float: right;"><b>Chair: Yi Wang</b></span>
<b>16:15 – 16:45</b>	Benjamin Berkels <i>Variational image processing for electron microscopy</i>
<b>16:45 – 17:00</b>	Y. Eren Suyolcu <i>Structural and chemical investigations of superconducting <math>\text{La}_2\text{CuO}_4</math> heterostructure interfaces</i>
<b>17:00 – 17:15</b>	Michael Huang <i>Momentum-resolved EELS investigations with monochromated electrons</i>
<b>17:20 – 17:50</b>	Guided castle tour
<b>18:00</b>	Bavarian buffet dinner

Friday, January 20, 2017	
	<b>Various 2</b> <span style="float: right;"><b>Chair: Y. Eren Suyolcu</b></span>
<b>09:00 – 09:30</b>	Luiz Galvao-Tizei <i>Optics of low-dimensional structures probed by fast electrons</i>
<b>09:30 – 09:45</b>	Surong Guo <i>Investigation of toroidal moments by relativistic electrons</i>
<b>09:45 – 10:00</b>	Nilesh Vats <i>HRTEM study of molecular ion-beam deposition on graphene</i>
<b>10:00 – 10:15</b>	Rana Yekani <i>EDX analysis of grain boundaries in BaZrO<sub>3</sub></i>
<b>10:15 – 10:30</b>	Vesna Srot <i>Exploring the mystery of high iron enrichment in hard dental tissues of rodents</i>
<b>10:30 – 11:00</b>	Coffee break and posters 
	<b>Various 3</b> <span style="float: right;"><b>Chair: Peter van Aken</b></span>
<b>11:00 – 11:15</b>	Pouya Moghimian <i>Bio-inspired organic–inorganic material design</i>
<b>11:15 – 11:30</b>	Wilfried Sigle <i>Linear electromagnetic and acoustic resonators</i>
<b>11:30 – 12:00</b>	Discussion and Closing
<b>12:30</b>	Lunch
<b>14:00</b>	Departure

## Some more information concerning the workshop

### Bus Shuttle Service

We will arrange for a bus shuttle service to take participants from train station in Tegernsee to Ringberg Castle. **Taxi Kaufmann (5555) will pick you up at 2:30 pm in front of the station.** The StEM group will travel by bus from Stuttgart to Ringberg Castle.

### Venue

Schloss Ringberg  
Conference Site of the Max Planck Society e. V. (MPG)  
Schlosstraße 20  
83708 Kreuth

Tel.: +49 (0) 8022-279-0  
Fax: +49 (0) 8022-279-259  
e-mail: Ringberg@rzg.mpg.de

**Conference office**  
**Tel. +49 (0) 8022-279-218**

(for more information such as how to get there please have a look at their home page:  
<http://www.schloss-ringberg.mpg.de/>)

### Talks

Duration of talks: 15 and 30 minutes. **Please leave at least 3 minutes for discussion.**

### Presentation/Abstract

A beamer will be available. Please have your presentation on USB stick for easy transfer.

### Departure

Friday, January 20, 2017 (after lunch)