Max Planck Institute for Intelligent Systems

Stuttgart Center for Electron Microscopy – StEM
Heisenbergstrasse 3, D-70569, Stuttgart, Germany
www.is.mpg.de/StEM

International Workshop at Ringberg Castle, Lake Tegernsee, Germany
January 23rd – January 26th, 2013
Programme

Computational Methods in Transmission Electron Microscopy

	Wednesday, January 23ru, 2013
15:00 – 15:10	Opening and Welcome Peter A. van Aken
	(Chair: Peter van Aken)
15:10 – 15:50	Helmut Kohl, Münster *Simulation of elemental maps for relativistic electrons*
15:50 – 16:30	Peter Blaha, Vienna *All-electron calculations of core and valence EELS*
16:30 – 17:00	Coffee break
17:00 – 17:40	Martial Duchamp, Jülich *Detecting weak signals from dopant atoms in semiconductors from core loss electron energy-loss spectra – a combination with density functional theory calculations*
18:30	Dinner
After 20:00	Posters and beer

	Thursday, January 24tn, 2013
	(Chair: Wilfried Sigle)
09:00 – 09:40	Peter Schattschneider, Vienna *Electrons with a twist: Dichroism and vorticity in the TEM*
09:40 – 10:20	Jan Rusz, Uppsala *EMCD theory*
10:20 – 11:00	Coffee break
11:00 – 11:40	Ralf Hambach, Ulm *Investigation of 2D Plasmons and Orbitals using TEM-EELS*
11:40 – 12:20	Nahid Talebi, Stuttgart *Calculation of electromagnetic response of matter to electron impact*
12:30	Lunch

	Thursday, January 24th, 2013
	(Chair: Fritz Phillipp)
14:00 – 14:40	Peter Nellist, Oxford *Theory vs experiment – STEM*
14:40 – 15:20	Sandra Van Aert, Antwerpen *Beyond the limits of imaging: Model-based TEM*
15:20 – 16:00	Coffee break
16.00 – 16:40	Tore Niermann, Berlin *Transfer theory of image detectors*
16:40 – 17:20	Angus Kirkland, Oxford *New Detectors for Transmission Electron Microscopy*
18:30	Dinner

	Friday, January 25th, 2013
	(Chair: Vesna Srot)
09:00 – 09:40	Andreas Rosenauer, Bremen *Concentration quantification using STEM*
09:40 – 10:20	Josef Zweck, Regensburg *Differential phase contrast microscopy*
10:20 – 10:50	Coffee break
10:50 – 11:30	Chistoph Koch, Ulm *Harnessing the wealth of information contained in elastic electron scattering*
11:30 – 12:10	Harald Rose, Ulm *Theoretical aspects of image formation in the aberration-corrected electron microscope*
12:30	Lunch
	(Chair: Angus Kirkland/Christoph Koch)
14:00 – 14:40	Wouter Van den Broek, Ulm *Method for retrieval of the three-dimensional object potential by inversion of dynamical electron scattering*
14:40 – 15:20	Michael Lehmann, Berlin *State of the art in atomic resolution off-axis electron holography and electrostatic potential mapping*
15:20 – 16:00	Martin Hytch, Toulouse *3D strain mapping using off-axis holography*
16:00 – 16:30	Coffee break
16:30 – 17:10	Rafael Dunin-Borkowski, Jülich *Determining the 3-dimensional electrical field distribution in holographic tomography of nm-scale doped semiconductor devices by vector field tomography*
17:10 – 17:50	Dmitry Tyutyunnikov, Stuttgart *Quantitative inline electron holography of bent samples*
17:50 – 18:00	Closing Peter A. van Aken
18:30	Dinner

Some more information concerning the workshop

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/)

How to get to Ringberg Castle

From Tegernsee train station you can either take a taxi to the castle or wait for an **organized shared taxi** which we will send at **13:15** and **14:15**. In case you wish to use the pick-up service please inform Caroline Heer (sekretariat.stem@is.mpg.de) accordingly.

Talks

Duration of talks: 30 minutes plus 10 minutes discussion.

Presentation/Abstract

A beamer will be available. Please have your presentation on USB stick for easy transfer. We would very much appreciate if all speakers had their abstracts available as a pdf file. Finally we will put them on a FTP server from which everybody can download the files for a certain period of time.

Food

Please inform Caroline Heer if you need vegetarian food.

Departure

Saturday morning, January 26th, 2013 after breakfast.