

Call for abstracts

We invite contributions for the poster session. Templates for short, one-page abstracts can be found on the conference website together with instructions on abstract submission. A booklet of accepted abstracts will be handed out at the conference.

Web-site : www.iamnano2015.com

Registration

The registration fee (400€, students 350€) includes lunch in house (restaurant Waterkant) afternoon snacks, coffee and tea. A conference dinner is planned.

Details will be given on the conference website.

Early registration : 350€ (students : 300€)

Venue and Directions

Hotel Empire Riverside
Bernhard-Nocht-Straße 97
20359 Hamburg , Germany
Tel. +49 (40) 31119-0

The hotel can be reached from Hamburg's international airport by public transport (<http://www.hvv.de/en/index.php> line S1, 30 min + 10 min. walk).



About Hamburg

The city of Hamburg is a vivid centre of culture, business and tourism located in Northern Germany. Three universities and several research centres in and around Hamburg also make it one of the most important spots for science and education in Germany.

Within walking distance of the conference venue lies Hamburg's scenic harbour - the city's trademark and Germany's gate to the world.



deadline for
abstract submission
May 1, 2015

Contact and abstract submission

www.iamnano2015.com

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 **Helmholtz-Zentrum
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INSTITUTE OF MATERIALS RESEARCH

IAMNano 2015

International Workshop on Advanced
and In-situ Microscopies of Functional
Nanomaterials and Devices

July 8 – 10, 2015
Hamburg, Germany
Hotel Empire Riverside

 **Helmholtz-Zentrum
Geesthacht**

Centre for Materials and Coastal Research

Scope of the conference

The conference will give an overview on the most recent developments in (aberration corrected) electron microscopy techniques and their application to the characterization of advanced engineering and nano-materials. The topics will be introduced by invited keynote speakers during the plenary sessions while a poster session provides room for the presentation and discussion of contributed research.

Topics

- Imaging with high-resolution TEM and scanning TEM (STEM)
- In-situ TEM & SEM
- Image simulation and processing methods
- Electron holography and tomography
- Electron diffraction and electron backscatter diffraction (EBSD)
- Spectroscopic methods in TEM and SEM, simulation tools
- Applications to the characterisation of engineering materials and devices

Local Organizing Committee

Volker Abetz - *HZG Geesthacht / University of Hamburg*

Heike Gabrisch - *HZG Geesthacht*

Karl-Ulrich Kainer - *HZG Geesthacht*

Thomas Klassen - *HZG Geesthacht / HSU Hamburg*

Erica Lilleodden - *HZG Geesthacht*

Uwe Lorenz - *HZG Geesthacht*

Florian Pyczak - *HZG Geesthacht*

Scientific Advisory Board

Uli Dahmen - *NCEM Berkeley, USA*

Rafal Dunin-Borkowski - *ER-C Juelich, Germany*

Wolfgang Jäger - *Materials Science, University of Kiel, Germany*

Wolfgang Kaysser - *HZG, Geesthacht*

Christian Kübel - *INT KIT Karlsruhe, Germany*

Eva Olsson - *Chalmers University, Göteborg, Sweden*

Robert Sinclair - *Stanford University, USA*

Invited speakers (tentative titles)

Sara Bals - *Antwerp, Netherlands*

High-resolution 3D imaging of nanomaterials

Uli Dahmen - *NCEM Berkeley, USA*

Atomic mechanisms of interface motion by aberration-corrected TEM

Gerhard Dehm - *MPI Eisenforschung Düsseldorf, Germany*

Nano- and micromechanics of materials

Niels de Jonge - *INM Saarbrücken, Germany*

Liquid STEM – biological and functional materials systems

Rafal Dunin-Borkowski - *ER-C Juelich, Germany*

Quantitative mapping of magnetic fields

Max. Haider - *CEOS Heidelberg, Germany*

Instrumentation for Advanced and In-situ Microscopy

Ferdinand Hofer - *FELMI ZFE TU Graz, Austria*

STEM at atomic resolution

Martin Hytch * - *CEMES CNRS Toulouse, France*

Strain mapping in nanostructures by dark-field electron holography and aberration-corrected HR(S)TEM

Wolfgang Jäger - *Materials Science, University of Kiel, Germany*

Advanced TEM in developing high-efficiency solar cells

Wayne Kaplan * - *Technion Institute of Technology, Haifa, Israel*

Metal-ceramic interfaces

Lorenz Kienle - *Materials Science, CAU Kiel, Germany*

TEM on energy materials

Christoph Koch - *Ulm, Germany*

In-line holography and large-area strain measurement

Ai Leen Koh - *Stanford University, USA*

Electron energy loss spectroscopy (EELS) / ETEM in studying oxidation and hydrogenation phenomena

Christian Kübel - *Karlsruhe, Germany*

in-situ TEM – mechanical and electrochemical testing

Joachim Mayer - *RWTH Aachen, Germany*

Chromatic aberration corrected TEM and applications in materials science

Paul Midgley - *University of Cambridge, UK*

New developments in electron crystallography – molecular motion and 3D orientation mapping

Invited speakers (tentative titles)

Andy Minor* - *NCEM Berkeley, USA*

In situ TEM and deformation of nanoscale materials

Eva Olsson - *Chalmers University, Göteborg, Sweden*

In situ EM and soft matter

Velimir Radmilovic - *University of Belgrade, Serbia, and NCEM Berkeley, USA*

Al – based alloys, alloy design for automotive and aero-space application

Harald Rose - *University of Ulm, Germany*

Aberration-correction in electron microscopy

Andreas Rosenauer - *Solid State Physics, University of Bremen, Germany*

Quantitative STEM

Christina Scheu - *MPI Eisenforschung Duesseldorf and RWTH Aachen, Germany*

Interfaces in nanostructured photovoltaic devices

Robert Sinclair - *Stanford, USA*

ETEM, Aberration-corrected environmental TEM and recent applications

Etienne Snoeck - *CEMES CNRS Toulouse, France*

Electron holography of electric fields

Guillermo Solorzano - *PUC-Rio, Rio de Janeiro, Brazil*

Phase transformations in metallic nanomaterials

Erdmann Spiecker - *Electron Microscopy, University of Erlangen, Germany*

Single crystal superalloys

Pierre Stadelmann* - *EPFL Lausanne, Switzerland*

JEMS simulation software for Electron Microscopy

Karsten Tillmann - *ER-C Juelich, Germany*

Understanding high-resolution TEM contrast: FEM simulations of strained materials

James Wittig - *Vanderbilt University, Nashville USA*

Deformation Mechanisms in High-Mn Austenitic Steels using aberration corrected electron microscopy

Stefan Zaefferer - *MPI Eisenforschung, Düsseldorf, Germany*

Electron backscatter diffraction (EBSD) techniques for characterization of deformation structures

Nestor Zaluzec* - *Argonne National Lab, USA*

Quantitative EDXS and applications in materials science

* to be confirmed