

## Registration and conference site

Please register via email until 28 April 2017

Veranstaltungszentrum  
Ruhr-Universität Bochum  
Saal 1  
44801 Bochum  
Conference phone: 0234 32 29332

[www.icams.rub.de](http://www.icams.rub.de)  
[advanced-discussions@icams.rub.de](mailto:advanced-discussions@icams.rub.de)



ADVANCED DISCUSSIONS  
HPC and Industry  
9 May 2017

ICAMS  
INTERDISCIPLINARY CENTRE FOR  
ADVANCED MATERIALS SIMULATION

## HPC and Industry



09:00	Arrival / Coffee
09:30	Opening
<b>Session 1</b>	
09:30-11:00	<p><i>J. Hamaekers (Virtual Material Design, Fraunhofer Institute for Algorithms and Scientific Computing SCAI, Sankt Augustin):</i> Numerical simulation in virtual materials design</p> <p><i>A. Ferrari (ICAMS):</i> Temperature dependent properties of Ti-Ta based shape memory alloys</p> <p><i>T. Hammerschmidt (ICAMS):</i> High-performance computing with analytic bond-order potentials</p> <p><i>M. Mrovec (ICAMS):</i> Atomistic simulations of dislocations and their relation to macroscopic mechanical behaviour</p>
11:00-11:30	Coffee break
<b>Session 2</b>	
11:30-13:00	<p><i>V. Eyert (Materials Design S.A.R.L.):</i> Innovation through simulation: New perspectives in industrial materials research</p> <p><i>J. Görler (ICAMS):</i> Parallelized full-field simulation of tempered martensite: Quenching, tempering and tensile testing</p> <p><i>M. Tegeler (ICAMS):</i> Massively parallel phase-field simulations</p> <p><i>Y. Lysogorskiy (ICAMS):</i> Automatization of high-performance computing and data management</p>
13:00-14:00	Lunch break

**Session 3**

14:00-15:30	<p><i>A. Klawonn (Mathematisches Institut, Universität zu Köln):</i> High-performance computing in solid mechanics</p> <p><i>H. ul Hassan (ICAMS):</i> Micromechanical modelling of fatigue in Al using crystal plasticity finite element modelling</p> <p><i>N. Vajragupta (ICAMS):</i> Towards prediction of springback in deep drawing using a micro-mechanical modelling scheme</p> <p><i>R. Janisch (ICAMS):</i> Efficient sampling in materials simulation – exploring the five dimensional parameter space of grain boundaries</p>
15:30-16:00	Coffee break

**Session 4**

16:00-17:15	<p><i>P. J. in't Veld (Soft Matter Modeling, BASF SE, Ludwigshafen):</i> High-performance computing in an industrial environment: Applications in soft matter modeling</p> <p><i>F. Varnik (ICAMS):</i> High-performance computing in soft matter: How computers help to understand blood rheology</p> <p><i>C. Schwarze (ICAMS):</i> Efficient phase-field studies by simulation sampling and statistical analysis</p>
17:15-17:30	Concluding remarks
17:30	End

Invited talks: 30+5 minutes  
Contributed talks: 15+3 minutes