

From Electrons to Phase Transitions 2018

April, 4th to 6th 2018, Vienna

A ViCoM Conference

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Vienna Computational Materials
Laboratory



VIENNA COMPUTATIONAL MATERIALS LABORATORY
A SPECIAL RESEARCH AREA FUNDED BY THE AUSTRIAN SCIENCE FUND (FWF)
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From Electrons to Phase Transitions is an international conference organized within the framework of the Special Research Area "SFB ViCoM" (funded by the Austrian Science Fund – FWF; Spokesperson: Georg Kresse, Vice-Spokesperson: Karsten Held).

SCOPE OF THE CONFERENCE

The description of phase transitions is among the most challenging tasks in solid state physics. From an electronic point of view, an accurate description of phase transitions requires highly accurate energy differences between competing phases, a goal that is not yet achievable using routine *ab initio* methods. The conference will give an overview of methods beyond DFT that show promise in this area. The description of the ionic degrees of freedom is equally compelling, often necessitating sophisticated sampling methods to accurately capture the entropic contributions and their changes along the transition pathway. The conference will highlight promising new developments in this area, as well as, technologically relevant applications.

ABSTRACT SUBMISSION

Abstracts may be sent for oral or poster presentations via the online registration form on sfb-vicom.at until Feb 16th 2018. Ten contributed talks will be selected from the submissions.

VENUE/SCHEDULE

From Electrons to Phase Transitions takes place at "Christian Doppler lecture hall" in the historical building Boltzmannngasse 5 in Vienna's 9th district. Lectures start Wednesday at 10 am and end Friday at 1 pm.

FEE

The conference fee is 150 Euro for registration before March 4th and 200 Euro afterwards (includes coffee breaks and conference dinner).

(PRELIMINARY) LIST OF SPEAKERS

Peter Blaha, Vienna University of Technology
Christoph Dellago, University of Vienna
Martin Eckstein, Friedrich-Alexander University Erlangen-Nürnberg, Germany
Karsten Held, Vienna University of Technology
Carsten Honerkamp, RWTH Aachen University, Germany
Georg Kresse, University of Vienna
Christos Likos, University of Vienna
Walter Metzner, Max Planck Institute for Solid State Research Stuttgart, Germany
Jörg Neugebauer, Max Planck Institute for Iron Research Düsseldorf, Germany
Ulrich Nowak, University of Konstanz, Germany
Ignacio Pagonabarraga, University of Barcelona, Spain
Michele Parrinello, ETH Zurich, Switzerland
Maria Clelia Righi, University of Modena and Reggio Emilia, Italy
Dieter Suess, University of Vienna
Tim Wehling, University of Bremen, Germany