

From Electrons to Phase Transitions

February, 26th to 28th 2014, Vienna

A ViCoM Conference

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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 Dec 1st 2013.

VENUE/SCHEDULE

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

FEE

The conference fee is 150 Euro for registration before Dec 1st and 200 Euro afterwards (includes coffee breaks conference dinner).

(PRELIMINARY) LIST OF INVITED SPEAKERS

Fakher F. Assaad, University of Würzburg, Germany
Garnet Chan, Princeton University, USA
Roy Chantrell, University of York, UK
Ulrike Diebold, Vienna University of Technology, Austria
Olle Erikssen, Uppsala University, Norway
Hardy Gross, Max-Planck-Institut Halle, Germany
Claudine Noguera, Institut des NanoSciences, France
Athanassios Panagiotopoulos, Princeton University, USA
Lode Pollet, University of Munich, Germany
Lucia Reining, Centre for Users and Technology
Anders W. Sandvik, Boston University, USA
David Singh, Oak Ridge National Laboratory, USA
Frédéric Soisson, CEA, France
Pieter Visscher, University of Alabama, USA
Weitao Yang, Duke University, USA