

## Program

**Monday, October 10, 2011**

12:00	Lunch	
13:40	Jochen Mannhart, Member of the Organizing Committee	
<b>Heterostructures, Design and Characterization</b>		Chair: Jochen Mannhart
13:45	<b>Darrell Schlom</b>	MBE + ARPES – A Powerful Combination for Creating and Revealing the Electronic Structure of Correlated Oxides
14:10		<i>Discussion</i>
14:15	<b>Lena Fitting Kourkoutis</b>	Spectroscopic Imaging of Atomically Engineered Materials by Aberration Corrected Electron Microscopy
14:40		<i>Discussion</i>
14:45	<b>Hidenori Takagi</b>	Engineering Spin-Orbital Mott Insulator - SrIrO <sub>3</sub> /SrTiO <sub>3</sub> Multilayers
15:10		<i>Discussion</i>
15:15	Coffee	
<b>Oxide Interfaces</b>		Chair: German Hammerl
15:45	<b>Manfred Sigrist</b>	Electronic Properties of Interfaces Between Band and Mott Insulators
16:10		<i>Discussion</i>
16:15	<b>Jean-Marc Triscone</b>	LaAlO <sub>3</sub> /SrTiO <sub>3</sub> and Nickelate Based Oxide Interfaces
16:40		<i>Discussion</i>
16:45	<b>Hans Hilgenkamp</b>	High Mobility LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces: Fabrication, Transport Properties and Quantum Oscillations
17:10		<i>Discussion</i>
17:15	Poster Session	
18:30	Dinner	

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## Tuesday, October 11, 2011

7:00 – 8:45 Breakfast		
<b>Superconductivity</b>		Chair: Rudolf Hackl
9:00	<b>Douglas Scalapino</b>	Guidance in the Search for Higher $T_c$ from the Hubbard Model
9:25		<i>Discussion</i>
9:30	<b>Harold Hwang</b>	Manipulating Low-Dimensional (Super-)conductivity in SrTiO <sub>3</sub> Heterostructures
9:55		<i>Discussion</i>
10:00	<b>Javier Villegas</b>	Nanoscale Ferroelectric Manipulation of Magnetic Flux Quanta
10:25		<i>Discussion</i>
10:30 Coffee		
<b>Magnetism</b>		Chair: Ulrich Eckern
11:00	<b>Raymond Ashoori</b>	Coexistence of Magnetic Order and Two-Dimensional Superconductivity at LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces
11:25		<i>Discussion</i>
11:30	<b>George Sawatzky</b>	New Magnetic Materials Based on Defects, Anion Substitution, Interfaces, and Doping
11:55		<i>Discussion</i>
12:00	<b>Sunil Sinha</b>	Neutron and X-Ray Scattering Studies of Exchange Bias at Ferromagnetic/Antiferromagnetic Interfaces
12:25		<i>Discussion</i>
12:30 Group Photo		
12:45 Lunch		

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Multiferroic and Magnetoelectric Phases		Chair: Christian Pfleiderer
14:30	<b>Nicola Spaldin</b>	Revisiting the Hexagonal Manganite Multiferroics
14:55		<i>Discussion</i>
15:00	<b>Yoshinori Onose</b>	Skyrmion Crystal and Topological Hall Effect in Helical Magnets
15:25		<i>Discussion</i>
15:30	<b>Manfred Fiebig</b>	Magnetoelectric Phase Engineering in Oxides by Interfaces
15:55		<i>Discussion</i>
16:00	Coffee	
Functionality		Chair: Rossitza Pentcheva
16:30	<b>Warren Pickett</b>	Functionalities in Oxide Nanostructures: Opportunities for Dual 2DEGs
16:55		<i>Discussion</i>
17:00	<b>James Freericks</b>	Theoretical Approach to Transport and Capacitance Calculations in Strongly Correlated Multilayers
17:25		<i>Discussion</i>
17:30	<b>Supratik Guha</b>	Energy Efficient Computing Technologies Towards the End of Silicon Scaling
17:55		<i>Discussion</i>
18:00	Dinner	

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## Wednesday, October 12, 2011

7:00 – 8:45 Breakfast		
<b>Electronic Structure, Spectroscopies</b>		Chair: Joachim Deisenhofer
9:00	<b>Ralph Claessen</b>	Polar Discontinuity Effects in Oxide Heterostructures: Spectroscopy of Interface States
9:25		<i>Discussion</i>
9:30	<b>Karlheinz Schwarz</b>	Electronic Structure of Solids and Surfaces Studied with WIEN2k
9:55		<i>Discussion</i>
10:00	<b>Thomas Brückel</b>	Probing Nanomagnetism with Polarized Neutrons
10:25		<i>Discussion</i>
10:30 Coffee		
<b>Dimensionality</b>		Chair: Marcus Kollar
11:00	<b>Karsten Held</b>	LDA+DMFT: From Bulk to Heterostructures
11:25		<i>Discussion</i>
11:30	<b>Silke Paschen</b>	Role of Dimensionality in Heavy Fermion Quantum Critical Points
11:55		<i>Discussion</i>
12:00	<b>Christina Scheu</b>	Atomistic Insights into the Growth of Alumina Nanowires
12:25		<i>Discussion</i>
12:30 Closing Remarks (Peter Böni)		
12:45 Lunch		