



International Max Planck Research School

## **Dynamical Processes in Atoms, Molecules, and Solids**

### **Program for the Retreat in Kreischa** **Oct. 5.-7., 2011**

#### **Wed., Oct. 5<sup>th</sup>**

12.00	Arrival
12.30-13.30	Lunch
13.30-13.45	WELCOME: Michael Genkin
13.45-14.00	Introduction of the participants

#### **Partners Presentations MPI-PKS: (Chair: Michael Genkin)**

14.00-14.30	Jan Michael Rost
14.30-15.00	Roderich Moessner
15.00-15.30	Frank Pollmann
15.30-16.00	Coffee

#### **Partners Presentations Wroclaw & Prague: (Chair: Jan Michael Rost)**

16.00-16.30	Jozef Sznajd
16.30-17.00	Petr Slavicek
17.00-17.30	Pavel Jungwirth
18.00	Dinner
19.00	Social get-together

**Thu., Oct. 6<sup>th</sup>**

**Session “Ultracold Physics” (Chair: Rick Mukherjee)**

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|-------------|--|
| 9.00-9.30   | Lena Simon<br><i>Semiclassical dyn. of ultracold bosons in a double-well potential</i> |
| 9.30-10.00  | Nils Henkel<br><i>Supersolids in Rydberg-dressed Bose-Einstein Condensates</i>         |
| 10.00-10.30 | Fabian Maucher<br><i>Nonlocal solitons</i>   |
| 10.30-11.00 | Coffee   |

**Session “Laser-Matter-Interaction” (Chair: Abraham Camacho)**

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|-------------|---|
| 11.00-11.30 | Alexander Kaestner<br><i>Electron-energy bunching in laser-driven soft recollisions</i>         |
| 11.30-12.00 | Pierfrancesco DiCintio:<br><i>Dynamics of heterogeneous clusters under intense laser fields</i> |
| 12.00-12.30 | Carlos Zagoya<br><i>High-Harmonic-Generation: A Dominant Interactions Approach</i>              |
| 12.45       | Lunch   |
| 14.00       | Hiking tour   |
| 18.00       | Dinner  |

**Session “Open Quantum Systems” (Chair: Mohammad Siahatgar)**

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|-------------|---|
| 19.00-19.30 | Martin Schlesinger<br><i>Quantum dissipative dyn. of dimers on superfluid helium droplets</i> |
| 19.30-20.00 | Ansgar Pernice<br><i>Decoherence and the Nature of System-Environment Correlations</i>        |
| 20.00       | Social get-together   |

**Fri., Oct. 7<sup>th</sup>**

**Session “Rydberg Scattering & Plasmas” (Chair: Nils Henkel)**

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|-------------|---|
| 9.00-9.30   | Elias Diesen<br><i>Quantum reflection effects in molecular systems</i>                |
| 9.30-10.00  | Georg Bannasch<br><i>Creating strongly coupled plasmas using the Rydberg blockade</i> |
| 10.00-10.30 | Coffee  |

**Session “Solids & Surfaces” (Chair: Lena Simon)**

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|-------------|---|
| 10.30-11.00 | Stefanie Thiem<br><i>Energy Spectra of Quasiperiodic Labyrinth Tilings</i>                        |
| 11.00-11.30 | Thomas Brumme<br><i>Ab initio modeling of molecule-surface interactions</i>                       |
| 11.30-12.00 | Hugo Vieyra<br><i>Order parameter in CeCu<sub>2</sub>Si<sub>2</sub></i>                           |
| 12.00-12.30 | Mohammad Siahatgar<br><i>Quantum Heisenberg model on the spatially anisotropic square lattice</i> |
| 12.45       | Lunch & Departure   |