



International Max Planck Research School

Dynamical Processes in Atoms, Molecules, and Solids

IMPRS Retreat 2015, Hotel Erbgericht, Oct. 7-9

Wed., Oct. 7th

11.30	Arrival
12.15-13.30	Lunch
13.30-13.45	WELCOME & Introduction of the participants

Chair: Stepan Timr

13.45-14.05	Callum Murray <i>All-optical quantum information processing in strongly interacting ensembles</i>
14.10-14.30	Sthitadhi Roy <i>Non-equilibrium dynamics on Chern bands</i>
14.35-14.55	Francesco Alaimo <i>A Continuous Model for Active Particles</i>
15.00-15.20	Daniel Hollas <i>Novel X-ray initiated processes in hydrogen bonded systems</i>
15.25-16.00	Coffee

Chair: Fabian Zschocke

16.00-16.20	Leonardo Medrano <i>Strain engineering of thermal transport in 2D grain boundaries</i>
16.25-16.45	Barbara Grygiel <i>Optical conductivity of ultra-cold bosons in optical lattices</i>

- 16.50-17.10 **David Schönleber**
Optomechanical interactions in non-Hermitian coupled resonators
- 17.15-17.35 **Manos Xypakis**
Chiral modes conductance fluctuation in three dimensional topological insulator nanowires
- 18.00 Dinner
- 19.00 Game evening (Special game provided by Alan, Andreas and David)

Thu., Oct. 8th

Chair: Callum Murray

- 9.00-9.20 **Valentin Walther**
Nonlinear Optics with Rydberg Excitons
- 9.25-9.45 **Tsegabirhan Wendumu**
The Impact of Defects on Optical and Electronic Properties of Monolayer Molybdenum Disulfide
- 9.50-10.10 **Felix Fritzsche**
Complex Paths for Resonance-Assisted Tunneling in Mixed Systems
- 10.15-10.40 **Alan Celestino**
Breaking symmetries of a nanoelectromechanical rotor
- 10.40-11.10 Coffee

Chair: Paula Ostmann

- 11.10-11.30 **Konrad Patucha**
Role of bandwidths and energy gap in formation of ground state of ultra-cold bosons in artificial magnetic fields
- 11.35-11.55 **Koen van Kruining**
Electric-magnetic symmetry in the presence of matter
- 12:00-12:20 **Jan Chalabala**
Ionization dynamics of ammonia dimer
- 12.30-13.30 Lunch

13.30 Hiking tour

18.00 Dinner

19:00 – ca. 20:00 Symposium: PhD with Kids

Experience by Josef Melcr, Richard Hartmann and Wildan Abdussalam

20:00 free evening

Fri., Oct. 9th

Chair: Sthitadhi Roy

9.00-9.20 **Alfred Amon**
Impurity effects in heavy fermion superconductors

9.25-9.45 **Mehrdad Bagheri**
Optimal control using machine learning

9.50-10.10 **Matthias Gohlke**
Geometrical Frustration in Water Ice

10.15-10.30 Short Coffee break

Chair: David Schönleber

10.30-10.50 **Martina Rubesova**
Modelling UV and X-ray spectra of transition metal complexes

10.55-11.15 **Andreas Rubisch**
Dynamics of Helium Clusters under Short Laser Pulses

11.40-12.30 Lunch

Departure: We take the train at 13:05 from Krippen to Bad Schandau (just takes 3 min.); There we have to change:

-train to Dresden leaves from Bad Schandau at 13:15

-train to Prague leaves from Bad Schandau at 13:38

HENCE WE SHOULD LEAVE THE HOTEL AT 12:40!!