

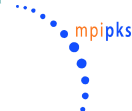
International Max Planck Research School for Dynamical Processes in Atoms, Molecules, and Solids



MAX PLANCK INSTITUTE
FOR CHEMICAL PHYSICS OF SOLIDS



MAX-PLANCK-GESELLSCHAFT



Meeting of the Scientific Evaluation Committee Dresden – MPIPKS – 11 September 2015

8:30 – 9:00 **Internal session of the evaluation committee**

9:00 – 9:45 **Welcome and Introduction** [seminar room 1 + 2]

present: IMPRS students and faculty

Jan-Michael Rost (spokesperson)

Michael Genkin (coordinator)

Roderich Moessner (designated spokesperson)

9:45 – 12:00 **Talks by IMPRS students** [seminar room 1 + 2]

present: IMPRS students and faculty

9:45 Elias Diesen (MPIPKS, Finite Systems)

Low-energy photoelectrons from strong-field ionization

10:10 – 10:40 *Coffee break*

10:40 Stepan Timr (IOCB Prague)

Molecular dynamics and optical properties
of fluorescent probes in lipid membranes

11:05 Paula Ostmann (TU Dresden)

Single particle dynamics in ultracold environments

11:30 Siddhardh Morampudi (MPIPKS, Condensed Matter)

Excitation statistics of fractionalized phases from spectral functions

12:00 – 13:00 *Lunch break*

13:00 – 14:30 **Poster session** [2nd floor, see list on the backside]

present: IMPRS students only

14:30 – 15:30 **Meeting with IMPRS students** [seminar room 4]

present: IMPRS students only

15:30 – 16:15 **Meeting with faculty members** [seminar room 4]

present: IMPRS faculty only

16:15 – 17:00 **Internal session of the evaluation committee**

17:00 – 17:15 **Feedback to the IMPRS board** [seminar room 4]

Posters [numbered poster walls are on the 2nd floor]

- (1) **Abdussalam, Wildan** Crystallization in dissipative Rydberg lattices
- (2) **Alaimno, Francesco** A Continuous Model for Active Particles
- (3) **Bagheri, Mehرداد** Optimal control with machine learning algorithms
- (4) **Bonilla, Alejandro S.** A plausible implementation of the m-qca paradigm: Achievements and challenges
- (5) **Buchholz, Max** Semiclassical hybrid dynamics of molecular systems
- (6) **Celestino, Alan** Electronic and excitonic transport in driven open systems
- (7) **Chalabala, Jan & Hollas, Daniel** Dynamical processes initiated by high energy radiation in molecules
- (8) **Diesen, Elias** Low-energy photoelectrons from strong-field ionization
- (9) **Fiedlschuster, Tobias** Floquet surface hopping: Laser-induced molecular dynamics
- (10) **Garibay, Abraham C.** XFEL dynamics in finite systems
- (11) **Gil, Laura I. R.** Spin Squeezing in a Rydberg Lattice Clock
- (12) **Gohlke, Matthias** Monte-Carlo Study of Polarization Plateaux in hexagonal Water Ice
- (13) **Grygiel, Barbara** Optical conductivity of ultra-cold bosons in optical lattices
- (14) **Hartmann, Richard** Quantum dynamics in structured environments – The stochastic hierarchy of pure states approach
- (15) **Joshi, Darshan G.** Nonlinear bond-operator theory and 1/d expansion for coupled-dimer magnets
- (16) **Körber, Martin** Localization of Chaotic Resonance States around Partial Transport Barriers
- (17) **Lange, Steffen & Onken, Franziska** Power-law trapping and chaotic transport in 4D symplectic maps
- (18) **Lehmann, Thomas** Planar molecular electronics on Au(111) and Si(100) surfaces
- (19) **Leonhardt, Karsten** Flexible Rydberg aggregates
- (20) **Love, Talia L. M.** Occupation entropy in the many-body localized phase and transition
- (21) **Ludwig, Tim** Current and order in interacting nanosystems, a theoretical study for weak system-reservoir coupling
- (22) **Melcr, Josef** Probes for neural signalling and their development through computer simulation
- (23) **Morampudi, Siddhardh C.** Signatures of statistics in spectral functions of fractionalized phases
- (24) **Motruk, Johannes** Topological phases in two-dimensional fermionic lattice models
- (25) **Murray, Callum R.** Single photon routing in strongly interacting ensembles
- (26) **Ostmann, Paula** Single particle dynamics in ultracold environments
- (27) **Pathak, Manisha T.** Synthesis, Structure and Properties of Novel Nitridogermanate $\text{Ca}_6[\text{Ge}_2^{\text{III}}\text{N}_6]$
- (28) **Patucha, Konrad** Role of bandwidths and energy gap in formation of ground state of ultra-cold bosons in artificial . . .
- (29) **Rehn, Jorge A.** Disorder and highly frustrated magnetism: Spin liquids, fractionalization and glassiness
- (30) **Roy, Sthitadhi** Non-equilibrium dynamics on Chern band models
- (31) **Roychowdhury, Krishanu** Correlated spin and charge degrees of freedom on a kagome lattice
- (32) **Rubisch, Andreas** Dynamics of Molecular Clusters under Short Laser Pulses
- (33) **Sandonas, Leonardo M.** Engineering thermal transport in low-dimensional systems
- (34) **Schnell, Alexander** Engineering Bose condensation far from equilibrium
- (35) **Schönleber, David W.** Effects of structured environments on collective properties of coupled systems
- (36) **Sistik, Lukas** Non-Adiabatic Ab Initio Molecular Dynamics with Floating Occupation Molecular Orbitals
- (37) **Sträter, Christoph** Rich physical phenomena from controlling inner degrees of freedom of cold atoms Idots
- (38) **Timr, Stepan** Molecular dynamics and optical properties of fluorescent probes in lipid membranes
- (39) **Tschischik, Wladimir** ollective mode dynamics in Bose-Hubbard systems: interaction and magnetic field effects
- (40) **van Kruining, Koen** Cold atom trap selectivity in the evanescent field of a multimode optical fibre
- (41) **Vorberg, Daniel C.** Generalized Bose-Einstein condensation into multiple states in driven-dissipative systems
- (42) **Wagner, Matthias** Numerical approximation of partial barriers in Hamiltonian systems
- (43) **Walther, Valentin** Nonlinear Optics in a Rydberg-Excited Semiconductor Cavity
- (44) **Wendumu, Tsegabirhan** Optical and electronic properties of point and line defects on Molybdenum disulfide nanostructures
- (45) **Xypakis, Emmanouil** Quantum transport in 3D topological insulator nanowires
- (46) **Zamani, Farzaneh** Steady state dynamics in a model system of strongly correlated electrons: Effective temperature . . .
- (47) **Zschocke, Fabian** Disorder in the Kitaev model