

Javed Akram (Berlin):

*Sculpting quasi one-dimensional Bose-Einstein condensate to generate calibrated matter-waves*

Michaela Altmeyer (Frankfurt):

*Magnetism, spin texture and in-gap states: Atomic specialization at the surface of oxygen deficient SrTiO<sub>3</sub>*

Christian Baals and Jian Jiang (Kaiserslautern):

*Non-equilibrium dynamics of interacting bosons in an optical lattice*

Steffen Backes (Frankfurt):

*Interplay of electronic correlations and oxygen vacancies in SrVO<sub>3</sub>*

Christoph Berke (Dresden):

*Stability of Weyl semi-metals under the formation of charge density waves*

Mario Bijelic (Frankfurt):

*Variational Monte Carlo simulations in solid state physics*

Vladislav Borisov (Frankfurt):

*Multiferroic charge transfer salt: TTF-CA*

Elena Gati (Frankfurt):

*Transport and thermodynamic studies of the unusual metal-insulator transition in  $\kappa$ -(BEDT-TTF)<sub>2</sub>Hg(SCN)<sub>2</sub>Cl*

Steffi Hartmann (Frankfurt):

*Charge-spin-lattice correlations in the half-metallic CMR material HgCr<sub>2</sub>Se<sub>4</sub>*

Ana Hudomal (Belgrade):

*Gravitational waves from periodic three-body systems*

Bernhard Irsigler (Berlin):

*Dimensional phase transitions of bosons in optical lattices with tunable hopping*

Philipp Jäger (Kaiserslautern):

*Investigation of Anderson insulating phases in interacting systems using DMRG*

Kevin Jägering (Kaiserslautern):

*Introduction and application of time-dependent Density Matrix Renormalization Group (tDMRG)*

Ryui Kaneko (Frankfurt):

*Emergent triangular structure in doped extended honeycomb Hubbard model*

Aaram Kim (Frankfurt):

*Interplay between spin-orbit coupling and Coulomb interaction in the multi-orbital Hubbard model*

Chris Koschenz (Dresden):

*The five-orbital Hubbard model for iron pnictides and iron chalcogenides - magnetic ordering and superconductivity*

Jan Krieg (Frankfurt):

*Thermodynamics and renormalized quasiparticles in the vicinity of the dilute Bose gas quantum critical point in two dimensions*

Martin Kübler (Kaiserslautern):

*Improved Ginzburg-Landau theory for bosons in optical lattices via degenerate perturbation theory*

Philipp Lange (Frankfurt):

*Physical dipoles and second-order perturbation theory for dipolar fermions in two dimensions*

Fabian Letscher (Kaiserslautern):

*Strong correlations in driven dissipative Rydberg gases*

Ying Li (Frankfurt):

*Magnetic interactions with strong spin-orbit couplings: challenges in design and modelling of Kitaev materials*

Dominik Linzner (Kaiserslautern):

*Reservoir induced topological order and quantized pumps in open lattice models with interactions*

Laura Mihalceanu (Kaiserslautern):

*Collective effects and instabilities of a magnon gas*

Denis Morath (Kaiserslautern):  
*Coupled chains: The 1D-3D crossover*

Axel Pelster (Kaiserslautern):  
*Multi-mode Tavis-Cummings model with time-delayed feedback control*

Lars Postulka (Frankfurt):  
*Field-induced ordered phases in the tetragonal quasi-2d dimer system  $Ba_{0.9}Sr_{0.1}CuSi_2O_6$*

Pascal Puphal (Frankfurt):  
*Single crystal growth of tunable quantum spin systems*

Kira Riedl (Frankfurt):  
*Frustrated spin systems*

Andreas Rückriegel (Frankfurt):  
*Rayleigh-Jeans condensation of pumped magnons in thin YIG films*

Dominik Straßel (Kaiserslautern):  
*Spin trimers coupled in 2D and 1D*

Satya Krishna Thallapaka (Frankfurt):  
*Thermal expansion measurements of the mixed systems  $Cs_2CuCl_{4-x}Br_x$  ( $0 < x < 4$ )*

Etienne Wamba (Kaiserslautern):  
*Mapping different experiments in Bose-Einstein condensates*

Karim Zantout (Frankfurt):  
*The two-particle self-consistent theory and comparisons to RPA*