

Sunday, July 5th

15:00–18:00	Guided Tour of Kraków
18:00–20:00	Welcome Reception and Registration

Monday, July 6th

08:00–09:00	Registration	
08:45–09:00	Opening of the Kolleg	
09:00–09:30	Henryk Figiel and Marian Jaskuła	Introduction to the Alexander von Humboldt Foundation
Chair: Krzysztof Sacha		
09:30–10:00	Marek Rams	Quantum and classical simulations of Ising model dynamics
10:00–10:30	Gediminas Juzeliūnas	Topological Sub-Wavelength Optical Lattices for Dark State Ultracold Atoms
10:30–11:00	Coffee break	
Chair: Frank Großmann		
11:00–11:30	Paweł Horodecki	Charging of quantum batteries via reservoir engineering
11:30–12:00	Iacopo Carusotto	How to prepare many-particle fractional quantum Hall fluids of synthetic quantum matter
12:00–12:30	Piotr Cyganik	SAMs for Organic Electronics -Stable Aromatic Monolayers on Metals with High or Low Conductivity
12:30–14:00	Lunch	
Chair: Szymon Pustelny		
14:00–14:30	Christof Weitenberg	Phase microscopes for quantum gases: from weakly to strongly correlated regimes
14:30–15:00	Krzysztof Jachymski	Dynamics of Bose polarons
15:00–15:30	André Eckardt	Open systems of neutral atoms: Floquet-reservoir engineering integer and fractional Chern insulators
15:30–16:00	Coffee break	
Chair: Stefan Scheel		
16:00–16:30	Michael Fleischhauer	Many-body dynamics of interacting spin systems and the Truncated Wigner Approximation for Spins
16:30–17:00	Florian Mintert	Fast thermal state preparation beyond native interactions
17:00–17:30	Karol Życzkowski	Exploring Basic Quantum Structures: Contrasting the Typical and Atypical

Tuesday, July 7th

Chair: Marek Kuś		
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09:00–09:30	Tilman Pfau	Novel qubits for the neutral atom platform
09:30–10:00	Natalia Korolkova	From Continuous Variable Quantum Secret Sharing to Quantum Microwave Networks
10:00–10:30	Luis Santos	Interplay between frustration and long-range interactions in dipolar triangular ladders
10:30–11:00	Coffee break	
Chair: Michael Fleischhauer		
11:00–11:30	Nigel Cooper	Phase-space microscopes for quantum gases
11:30–12:00	Szymon Pustelny	Quantum technologies to search for physics beyond the Standard Model
12:00–12:20	Mateusz Kędziora	Room-Temperature Exciton-Polariton Condensation and Guided Transport in Perovskite Monocrystals
12:20–12:40	Karthik Eswaran	Time quasicrystalline order from periodic driving
12:40–12:45	Conference Photo	
12:45–14:00	Lunch	
14:00–15:30	Poster Session	
15:30–16:00	Coffee break	
Chair: Christof Weitenberg		
16:00–16:30	Nikolay Vitanov	Quantum-enhanced localisation and imaging
16:30–17:00	Frank Großmann	Multi-configuration approaches to interacting many-body quantum dynamics: beyond mean field
17:00–17:30	Jens Biegert	Attosecond exploration of energy pathways in matter
18:30–21:30	Conference Dinner	

Wednesday, July 8th

Chair: Marek Rams		
09:00–09:30	Susanne Yelin	Unleashing Analog Quantum Computing
09:30–10:00	Stefan Scheel	Rydberg physics with excitons in cuprous oxide quantum wells
10:00–10:30	Jakub Zakrzewski	Dynamics in disordered Rydberg arrays
10:30–11:00	Coffee break	
Chair: Gediminas Juzeliūnas		
11:00–11:30	Kazimierz Rzażewski	Multicomponent quantum gases and spontaneous symmetry breaking
11:30–12:00	Radim Filip	Quantum Non-Gaussian Light and Matter
12:00–12:30	Peter Schlagheck	Creating highly entangled NOON states with ultracold bosonic atoms
12:30–14:00	Lunch	
Chair: Jens Biegert		
14:00–14:30	Robert Spreeuw	Optical tweezers for atom arrays and in ion traps
14:30–15:00	Martin Robert de Saint Vincent	Coherent control of large nuclear spins in a Fermi gas of strontium
15:00–15:30	Mariusz Gajda	Bose-Fermi mixtures of ultracold atoms
15:30–16:00	Coffee break	

Chair: Jakub Mielczarek		
16:00–16:30	Florian Schreck	Realization of continuous superradiant lasing on a narrow optical transition
16:30–17:00	Bogdan Damski	Expanding quantum magnetic field
17:00–17:30	Closing remarks	

Thursday, July 9th

09:00–10:30	Jagiellonian University Museum Tour
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