

Agenda

German-French Workshop “Optical Quantum Systems”

Location: Leonardo Hotel

Address: Falkenstraße 1, 76530 Baden-Baden.

By car: The hotel has parking spots in their own underground garage.

By train: From Baden-Baden train station (approx. 7km from the hotel) either by taxi or by bus line #201/X45 to the "Bertholdplatz" stop.

Monday, 2nd March 2026

12:00	Lunch	
13:15	Welcome Mario Ruben (KIT)	Spectroscopy I
13:30	Plenary Talk Manfred Kappes (KIT) <i>Trapped (Supra)molecular Ions</i>	Chair: Joachim Ankerhold
14:30	P. Bertet (Saclay) <i>Precision Hyperfine Spectroscopy of a Single Nuclear-spin-9/2 Impurity Coupled to a Paramagnetic Impurity using Microwave Photon Counting</i>	
15:00	D. Jankovic (Seoul) <i>Lanthanide On-Surface Qudits in STM: Addressing, Control, and Optimization</i>	
15:30	S. Götzinger (Erlangen) <i>Ultimate Photonics: One Photon, one Molecules</i>	
16:00	<i>Coffee break</i>	
16:30	J. Ankerhold (Ulm) <i>Charge Transfer Meets Circuit Quantum Electrodynamics</i>	Chair: David Hunger
17:00	P.A. Hervieux (Strasbourg) <i>A New Spectroscopy of Atom–Surface Interactions</i>	
17:30	J.G. Hartmann (Strasbourg) <i>Optimal Control Techniques for Molecular Spin Qudit and Qubit Quantum Gates in SMMs and Pulsed EPR</i>	
19:30	<i>Dinner & open discussion + poster session</i>	

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Tuesday, 3rd March 2026

09:00	Plenary Talk Prof. Rainer Blatt (Innsbruck) <i>Quantum Computation and Quantum Simulation with Trapped Ca+ Ions</i>	Cold Atoms, Ions and Molecules
10:00	S. Whitlock (Strasbourg) <i>Blueprint for a Neutral Atom Quantum Computer</i>	Chair: Mario Ruben
10:30	C. Solaro (Strasbourg) <i>Quantum Logic Spectroscopy of Molecular Ions</i>	
11:00	<i>Coffee break</i>	
11:30	G. Pupillo (Strasbourg) <i>Towards Fault-tolerant Quantum Computing with Neutral Atoms</i>	
12:00	T. Schätz (Freiburg) <i>Catching the wave - tunable atom-ion Feshbach resonances, ... and (life-harvesting) recombination pathways</i>	
12:30	<i>Group Photo & Lunch</i>	
13:30	Plenary Talk Nobel Prize Prof. J.-M. Lehn (Strasbourg) <i>Metallo-supramolecular Chemistry</i>	Supramolecular Chemistry
14:30	M. Ruben (KIT/Strasbourg) <i>Isotopologue Supramolecular Materials: Nuclear-Spin Hilbert-Space Engineering</i>	Chair: Guido Pupillo
15:00	S. Kuppusamy (KIT) <i>Coherent Light-matter Interactions in Luminescent Lanthanoid Complexes</i>	
15:30	F. Biedermann (KIT) <i>Molecular-Recognition-Based Optical Sensing</i>	
16:00	<i>Coffee break</i>	
16:30	P. Goldner (Paris) <i>Towards Rare Earth Based Integrated Quantum Photonics</i>	
17:00	S. Richert (Ulm) <i>Supramolecular Approaches in Light-induced Spin Communication</i>	
17:30	A. Clark (Bristol) <i>Infrared Vibrational Spectroscopy of Molecules using Nonlinear Interferometry</i>	
19:30	<i>Dinner & open discussion + poster session</i>	

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Wednesday, 4th March 2026

09:00	Plenary Talk Sam Bayliss (Glasgow) <i>Optically Addressable Molecular Spins for Quantum Sensing</i>	Spectroscopy II
10:00	D. Hunger (KIT) <i>Optically Addressable Molecular Spins for Quantum Information Applications</i>	Chair: Paul-Antoine Hervieux
10:30	D. Serrano (Paris) <i>Optical Dephasing Mechanisms in Europium Molecular Crystals.</i>	
11:00	<i>Coffee break</i>	
11:30	F. Jelezko (ULM) <i>Spin-photon Quantum Interfaces</i>	
12:00	J. Janetzki (Florence) <i>Transition-metal Complexes as Optically Addressable Spin Qubits</i>	
12:30	A. Bienfait (Lyon) <i>Pulsed Electron Spin Resonance on Picoliter Radicals Samples</i>	
13:00	Closing Remarks Mario Ruben (KIT)	
13:05	Lunch and Departure	

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Posters:

1. **Ingrid Popovici:** Lanthanide polynuclear complexes, gateways towards quantum information processing and/or sensing.
2. **Krishna Kaushik:** Spin-State Manipulation via Optical Tuning in 3d-4f Hybrid Quantum Functional Materials
3. **Sujit Kamilya:** Design and Synthesis of Molecular Platforms for Optically Addressable Spin Qubits.
4. **Barbora Brachnakova:** Toward Optically Addressable Molecular Qubits: Dinuclear Eu(III) Complexes with Narrow $^5D_0-^7F_0$ Transition.
5. **Zhaoyang Jing:** Linear 3d-4f-3d trinuclear complexes: magnetism and photoluminescence study.
6. **Yaorong Chen:** isotope engineering in Dysprosium grid complex.
7. **Jason Hofmann:** Narrow Linewidth Spin Qubit Emitter.
8. **Jordan Appleton:** The excited state properties of porphyrins linked to varying radical systems.
9. **Zhaozheng Yang:** Network Complexity Drives Selectivity Switching in Dynamic Covalent Libraries of Cages
10. **Brigitta Kappes:** EUCOR - The European Campus
11. **Alexander Heinrich:** Quantum BW