Symposium Spin-Boson Models (SYSB)

jointly organised by
the Quantum Optics and Photonics Division (Q),
the Atomic Physics Division (A), and
the Molecular Physics Division (MO)

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The physics of coupled spin-boson dynamics has an astonishingly wide range of applications, from quantum information processing and quantum-enhanced metrology to the realization of non-equilibrium states, such as time-crystals. Further important phenomena include single charge transfer in quantum electronic circuits and superconducting devices as well as quantum heat transfer in atomic and molecular aggregates. This symposium covers recent developments across this broad spectrum of research with internationally renowned speakers presenting both experimental and theoretical results.

Overview of Invited Talks and Sessions

(Lecture hall RW 1)

Invited Talks

SYSB 1.1	Tue	11:00–11:30	RW 1	**Tailoring the quantum dynamics of spins with bosonic baths** — •Giovanna Morigi
SYSB 1.2	Tue	11:30–12:00	RW 1	**Spins, Qubits, and Bosons** — •Guido Burkard
SYSB 1.3	Tue	12:00–12:30	RW 1	**Spin-boson models under strong ac-driving** — •Milena Grifoni
SYSB 1.4	Tue	12:30–13:00	RW 1	**Kibble-Zurek scenario for melting of discrete time crystals** — •Phatthamon Kongkhambut, Hans Kessler, Roy D. Jara Jr., Jayson G. Cosme, Andreas Hemmerich

Sessions

SYSB 1.1–1.4	Tue	11:00–13:00	RW 1	**Spin-boson models**

Related sessions within the Quantum Optics and Photonics Division

Q 9.1–9.7	Mon	17:00–18:45	P 4	**Open Quantum Systems and Spin-Boson Systems I**
Q 33.1–33.8	Wed	14:30–16:30	P 4	**Cavity QED, QED, and Spin-Boson Systems I**