Intersectional Symposium Cavity meets Circuit Quantum Electrodynamics (SYQE)

lead by the Low Temperature Physics (TT)

Rudolf Gross Walther-Meißner-Institut Garching Jonathan Finley Walter-Schottky-Institut TU München

Gerhard Rempe MPI für Quantenoptik Garching

In Cavity and Circuit Quantum Electrodynamics (QED) experiments, the interaction of natural and artificial solid state atoms with quantized electromagnetic fields is studied on the most fundamental level. Recently, tremendous progress has been made in these fields, allowing for experiments which can be considered modern realizations of the thought experiments imagined by Bohr and Einstein to test the fundamental concepts of quantum theory. The symposium aims to highlight the recent breakthroughs in both cavity and circuit QED, resulting from joint efforts in the quantum optics and solid state community.

Overview of Invited Talks and Sessions

(lecture room HSZ 01)

Invited Talks

SYQE 1.1	Fri	10:30-11:00	HSZ 01	The driven Jaynes-Cummings system: from atoms and cavities to
				circuits — •HOWARD CARMICHAEL
SYQE 1.2	Fri	11:00-11:30	HSZ 01	Light shifts of ground-state quantum beats in Cavity QED, a conse-
				quence of quantum jumps. — •LUIS OROZCO
SYQE 1.3	Fri	11:30-12:00	HSZ 01	Tomography and Correlation Function Measurements of Propagating
				Microwave Photons — • Andreas Wallraff
SYQE 1.4	Fri	12:00-12:30	HSZ 01	Artificial atom in 1D open space — •YASUNOBU NAKAMURA
SYQE 1.5	Fri	12:30 - 13:00	HSZ 01	Quantum dot based bright sources of quantum light. $-\bullet$ PASCALE
				Senellart, Adrien Dousse, Jan Suffczynski, Vivien Loo, Steffen
				MICHAELIS DE VASCONCELLOS, OLIVIER GAZZANO, LOIC LANCO, ARIS-
				TIDE LEMAITRE, ISABELLE SAGNES, ALEXIOS BEVERATOS, OLIVIER KREBS,
				Jacqueline Bloch, Paul Voisin

Sessions

SYQE 1.1–1.5 Fri 10:30–13:00 HSZ 01 Cavity meets Circuit Quantum Electrodynamics