

Program

	Thursday, 7 October	Friday, 8 October
	8:15 – 9:00	<i>Registration</i>
Session 1 (IAS)	9:00 – 9:30	E. Solano (<i>Bilbao</i>) A. Laucht (<i>TUM</i>) P. Q. Jin (<i>Karlsruhe</i>)
	9:30 – 10:00	D. Esteve (<i>Saclay</i>) A. Wallraff (<i>ETH-Zürich</i>)
	10:00 – 10:30	M. J. Hartmann (<i>TU München</i>) G. Johansson (<i>Chalmers</i>) C. M. Wilson (<i>Chalmers</i>)
	10:30 – 11:00	<i>Coffee Break</i>
Session 2 (IAS)	11:00 – 11:30	A. Imamoglu (<i>ETH-Zürich</i>) M. Grifoni (<i>Regensburg</i>) E. P. Menzel (<i>WMI</i>)
	11:30 – 12:00	C. Müller (<i>Karlsruhe</i>) K. Ensslin (<i>ETH-Zürich</i>)
	12:00 – 12:30	S. Nadj-Perge (<i>TU-Delft</i>) V. M. Stojanovic (<i>Basel</i>) K. C. Nowack (<i>TU-Delft</i>)
	12:30 – 14:00	<i>Lunch Break</i>
Session 3	14:00 – 14:30	J. Wrachtrup (<i>Stuttgart</i>) Poster Session (ZNN)
	14:30 – 15:00	J. Majer (<i>Wien</i>)
	15:00 – 15:30	M. J. Martinez-Perez (<i>Zaragoza</i>) H. J. Krenner (<i>U. Augsburg</i>)
	15:30 – 16:00	<i>Coffee Break</i>
Session 4 (IAS)	16:00 – 16:30	R. Hanson (<i>TU-Delft</i>) M. Reimer (<i>TU-Delft</i>) F. P. Laussy (<i>TUM</i>)
	16:30 – 17:00	T. Niemczyk (<i>WMI</i>) J. H. Cole (<i>Karlsruhe</i>)
	17:00 – 17:45	Hybrid approaches - best or worst of both worlds? The ultrastrong coupling regime of circuit QED
	19:00	<i>Conference dinner</i> (<i>Aumeister</i>)

Thursday, 7 October

8:15 – 9:00	<i>Registration</i>
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Session 1 (IAS)

9:00 – 9:30	E. Solano <i>Novel perspectives in circuit QED</i>
9:30 – 10:00	A. Dewes, A. Palacios-Laloy, Y. Kubo, F. Ong, P. Bertet, D. Vion, D. Esteve <i>Circuit QED for quantum information processing</i>
10:00 – 10:15	M. Leib, M. Kiffner and M. J. Hartmann <i>Photon-Photon Interactions in Cavity-Waveguide Networks</i>
10:15 – 10:30	L. Tornberg, G. Johansson <i>High-fidelity feedback-assisted parity measurement in circuit QED</i>

10:30 – 11:00	<i>Coffee Break</i>
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Session 2 (IAS)

11:00 – 11:30	P. Fallahi, S. T. Yilmaz, A. Imamoglu <i>Measurement of heavy-hole hyperfine interaction in single quantum dots</i>
11:30 – 12:00	C. Müller <i>Evaluation of defect models for superconducting phase qubits</i>
12:00 – 12:15	S. Nadj-Perge , S. M. Frolov, E. P. A. M. Bakkers, L. P. Kouwenhoven <i>Coherent electrical manipulation of single spins in InAs nanowires</i>
12:15 – 12:30	R. Heule, C. Bruder, D. Burgarth, V. M. Stojanovic <i>Local operator control of Heisenberg spin chains</i>

12:30 – 14:00	<i>Lunch Break</i>
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Session 3 (IAS)

14:00 – 14:30	P. Neumann, F. Jelezko, J. Wrachtrup <i>Engineering Defect Center Interaction</i>
14:30 – 15:00	R. Amsuess, Ch. Koller, T. Noebauer, S. Putz, S. Rotter, J. Schmiedmayer and J. Majer <i>Coupling Color Centers and Atoms to Superconducting Cavities</i>
15:00 – 15:15	M. J. Martinez-Perez , S. Cardona-Serra, J. Sese, E. Coronado, M. Evangelisti, O. Montero, C. Marti-Gastaldo, J. M. Clemente-Juan, and F. Luis <i>"Monoatomic" SMMs as solid candidates for quantum computing</i>

15:15 – 15:30 **H. J. Krenner**, D. A. Fuhrmann, S. M. Thon, H. Kim, P. M. Petroff,
D. Bouwmeester, A. Wixforth
*High frequency tuning of photonic crystal nanocavity modes using
surface acoustic waves*

15:30 – 16:00 *Coffee Break*

Session 4 (IAS)

16:00 – 16:30 **R. Hanson**
*Universal dynamical decoupling of a single spin from a solid-state
environment*

16:30 – 17:00 **T. Niemczyk**, F. Deppe, H. Huebl, E. P. Menzel, F. Hocke, M.
J. Schwarz, E. Hoffmann, A. Baust, M. Haerberlein, G. Wild, D.
Zueco, T. Hümmer, J. J. Garcia-Ripoll, E. Solano, A. Marx and
R. Gross
*Strong and ultrastrong coupling in circuit quantum electrody-
namics with superconducting flux qubits*

17:00 – 17:45 Round table discussion
Hybrid approaches - best or worst of both worlds?

19:00 *Conference dinner
(Aumeister)*

Friday, 8 October

8:15 – 9:00	<i>Registration</i>
Session 1 (IAS)	
9:00 – 9:15	A. Laucht , J. M. Villas-Bôas, N. Hauke, S. Stobbe, P. Lodahl, M. Kaniber, and J. J. Finley <i>Mutual Coupling of Two Different Semiconductor Quantum Dots via an Optical Cavity Mode</i>
9:15 – 9:30	S. André, P. Q. Jin , V. Brosco, J. H. Cole, A. Romito, A. Shnirman, G. Schön <i>Single-qubit lasing in the strong coupling regime</i>
9:30 – 10:00	A. Wallraff , D. Bozyigit, C. Lang, C. Eichler <i>Tomography and Correlation Function Measurements of Pulsed and Continuous Single Photon Sources</i>
10:00 – 10:30	C. M. Wilson , I. Hoi, T. Palomaki, M. Sandberg, F. Persson, G. Johansson, P. Delsing <i>The Single Photon Router</i>
10:30 – 11:00	<i>Coffee Break</i>
Session 2 (IAS)	
11:00 – 11:15	J. Hausinger, M. Grifoni <i>Dynamics of an ultrastrong coupled qubit-oscillator system under extreme driving</i>
11:15 – 11:30	E. P. Menzel , A. Baust, F. Deppe, T. Niemczyk, E. Hoffmann, M. Haerberlein, G. Wild, M. J. Schwarz, H. Huebl, F. Hocke, E. Solano, K. Inomata, T. Yamamoto, Y. Nakamura, A. Marx, and R. Gross <i>A flux-driven Josephson parametric amplifier for experiments with propagating quantum microwaves</i>
11:30 – 12:00	T. Frey, P. Leek, A. Wallraff, B. Küng, C. Rössler, T. Ihn, and K. Ensslin <i>Time-dependent transport through quantum dots</i>
12:00 – 12:30	K. C. Nowack , M. Laforest, M. Shafiei, G. Prawiroatmodjo, W. Wegscheider and L.M.K. Vandersypen <i>Independent read-out of electron spins in a double quantum dot</i>
12:30 – 14:00	<i>Lunch Break</i>
Session 3 (ZNN)	
14:00 – 15:30	Poster Session
15:30 – 16:00	<i>Coffee Break</i>

Session 4 (IAS)

16:00 – 16:15	M. E. Reimer , M. P. van Kouwen, G. Bulgarini, M. Hocevar <i>Quantum Opto-electronics on Single Dots in Nanowires</i>
16:15 – 16:30	F. P. Laussy <i>Nonlinear regime of strong-coupling of a quantum dot in a microcavity</i>
16:30 – 17:00	J. H. Cole , L. T. Hall, C. D. Hill, L. C. L. Hollenberg <i>Decoherence Probe Microscopy</i>
17:00 – 17:45	Round table discussion <i>The ultrastrong coupling regime of circuit QED</i>

Posters

No.	Authors/Title
Superconductivity	
1	A. Dewes , A. Palacios-Laloy, F. Ong, P. Bertet, D. Vion, D. Esteve <i>A Two-Transmon Swap Gate with Individual Qubit Readouts</i>
2	J. J. Garcia-Ripoll , D. Porras, G. Romero, E. Solano <i>Superconducting qubits in open transmission lines</i>
3	G. J. Grabovskij , P. Bushev, J. Lisenfeld, A. Lukashenko and A. V. Ustinov <i>Experiments on phase qubits and two-level systems</i>
4	M. Jerger , T. Wirth, S. Poletto, A. V. Ustinov <i>Multiplexing Qubit Readout using Microwave Resonators</i>
5	G. Romero , J. J. Garcia-Ripoll, E. Solano <i>Detecting a propagating photon with a superconducting qubit and a mirror in circuit QED</i>
6	O. Viehmann , J. von Delft, and F. Marquardt <i>On Superradiant Phase Transitions in Circuit QED</i>
7	Y. D. Wang, C. Bruder <i>QND measurement for tunnable flux bias</i>
Hybrid systems and emerging concepts	
8	C. Bruder <i>Quantum-nanoelectromechanical systems</i>
9	J. Casanova , G. Romero, I. Lizuain, J. J. Garcia-Ripoll, E. Solano <i>Deep Ultra Strong Coupling Regime of the Jaynes-Cummings model</i>
10	A. C. Clark, K. K. Schwarzwälder, T. Bandi, D. Maradan, L. Casparis and D. M. Zumbühl <i>Method for Cooling Nanostructures to Microkelvin Temperatures</i>
11	T. Frey , P. J. Leek, T. Ihn, K. Ensslin, A. Wallraff <i>Integration of quantum dots with microwave circuits</i>
12	E. Hoffmann, F. Deppe, T. Niemczyk, T. Wirth, A. Baust, M. Haeberlein, F. Hocke, H. Huebl, A. Lukashenko, M. Mariantoni, E.P. Menzel, M. Schwarz, G. Wild, A.P. Zhuravel, A. Ustinov, A. Marx, R. Gross <i>Hybrid Rings for circuit Quantum Electrodynamics</i>
13	J. Hwang and E. A. Hinds <i>Giant optical nonlinearity and photon production using individual molecules coupled to a waveguide</i>
14	Y. Kubo, F. Ong, P. Bertet, D. Vion, D. Esteve <i>Towards an hybrid qubit architecture: Strong Coupling of a Spin Ensemble to a Superconducting Resonator</i>

No.	Authors/Title
15	M. Leib , M. J. Hartmann <i>Bose-Hubbard dynamics of polaritons in a chain of circuit QED cavities</i>
16	F. Luis, A. Repollés, M. J. Martínez-Pérez, O. Roubeau, D. Zueco , M. Evangelisti, A. Cam'ou, D. Aguilà, L. A. Barrios, and G. Aromi <i>Molecular prototypes for C-NOT spin-based quantum gates</i>
17	E. Paladino , A. D'Arrigo, A. Mastellone, G. Falci <i>Optimal tuning of solid-state quantum gates</i>
18	G. M. Reuther , D. Zueco, P. Hänggi, S. Kohler <i>Monitoring Entanglement Evolution and Collective Quantum Dynamics</i>
19	G. Romero , I. Lizuain, D. Ballester, D. Zueco, J. J. García-Ripoll, and E. Solano <i>Quantum propagating microwaves in the ultrastrong coupling regime</i>
20	M. G. Schultz <i>Markovian Dynamics of Two Qubits in a Common Heat Bath</i>
21	L. Steffen , M. Baur, A. Fedorov, J. M. Fink, K. Pakrouski, W. Zeng and A. Wallraff <i>Entangling protocols for two qubits in circuit QED</i>
22	K. M. Weiss, J. M. Elzerman, J. Miguel-Sanchez, and A. Imamoglu <i>Steady-state gain of a single solid-state emitter</i>
Semiconductor nanostructures and NV-centres	
23	D. Harbusch , S. Manus, H. P. Tranitz, W. Wegscheider, S. Ludwig <i>High frequency pulsed-gate technique for the measurement of tunneling and relaxation rates in coupled quantum dots</i>
24	H. Jayakumar, C. Couteau, A. Predojevic, and G. Weihs <i>Towards time-bin entangled photons using quantum dots</i>
25	J. Kinzel , D. Rudolph, G. Abstreiter, J. J. Finley, G. Koblmüller, A. Wixforth, H. J. Krenner <i>Dynamic and directional modulation of the optical emission of individual GaAs nanowires using surface acoustic waves</i>
26	F. Klotz , V. Jovanov, J. Kierig, E. C. Clark, M. Bichler, G. Abstreiter, M. S. Brandt, and J. J. Finley, H. Schwager and G. Giedke <i>Asymmetric optical nuclear spin pumping via the neutral exciton state in a single self-assembled quantum dot</i>
27	A. Predojevic , H. Jayakumar, I. Söllner, and G. Weihs <i>Semiconductor Quantum Dot Photonic Interface</i>
28	L. Robledo, H. Bernien , I. van Weperen, R. Hanson <i>Coherent optical control of single NV centers in diamond</i>

Program

No.	Authors/Title
29	F. J. R. Schülein , D. Reuter, A. D. Wieck, A. Wixforth, H. J. Krenner <i>Dynamic carrier injection into individual self-assembled quantum dots controlled by surface acoustic waves</i>
30	T. Volz , A. Reinhard, J. M. Sanchez, A. Imamoglu, B. Besga, J. Esteve, J. Reichel, I. Carusotto <i>Towards the realization of artificial atoms using polariton dots</i>
31	A. Wild , J. Sailer, J. Kierig, K.M. Itoh, E. E. Haller, G. Abstreiter, S. Ludwig, D. Bougeard <i>Towards nuclear spin free qubits based on Si/SiGe heterostructures</i>
32	B. Witek , D. Scholz, E. Reiger, V. Zwiller <i>Towards optical interface for gate-controlled quantum dots</i>
