

Program

Tuesday, 23 April 2019

10: 00 – 14:00 Arrival and Registration

12:00 *LUNCH*

13:30 – 13:40 Scientific organizers **Welcome words**

13:40 – 14:40 Andreas Wallraff **Quantum information processing with
superconducting circuits**

14:40 – 15:40 Philipp Schindler **Quantum information processing in ion
traps - an overview**

15:40 – 16:10 *COFFEE BREAK*

16:10 – 17:10 Hendrik Bluhm **Semiconductor spin qubits – a scalable
platform for quantum computing?**

17:10 – 19:00 **Postersession**

18:45 *DINNER*

Program

Wednesday, 24 April 2019

08:00	<i>BREAKFAST</i>	
09: 00 – 09:20	Stefan Jorda	About the Wilhelm and Else Heraeus Foundation
09:20 – 10:00	Winfried Hensinger	Engineering challenges to construct a practical trapped ion microwave quantum computer
10:00 – 10:40	Koen Bertels	The trend towards quantum accelerators
10:40 – 11:30	<i>INFORMAL DISCUSSIONS, COFFEE and POSTERS</i>	
11:30 – 12:10	Lotte Geck	Scalable Cryogenic CMOS Electronics for Spin Qubits
12:10 – 12:20	Conference Photo (in the front of the lecture hall)	
12:30	<i>LUNCH</i>	
14:00 – 14:40	Silvano de Franceschi	Leveraging silicon technology for scalable quantum processors
14:40 – 15:20	Michael Johanning	Microwaves and trapped ions: A fertile marriage
15:20 – 15:50	<i>COFFEE BREAK</i>	
15:50 – 16:30	Alexey Ustinov	Locating two-level material defects that limit the coherence of superconducting qubits
16:30 – 18:30	Postersession	
19:00	<i>HERAEUS DINNER</i> (social event with cold & warm buffet with complimentary drinks)	

Program

Thursday, 25 April 2019

08:00	<i>BREAKFAST</i>	
09:20 – 10:00	Markus Müller	Scalable quantum error correction – concepts and engineering challenges
10:00 – 10:40	Ferdinand Schmidt-Kaler	Trapped ion quantum computing
10:40 – 11:30	<i>INFORMAL DISCUSSIONS and COFFEE</i>	
11:30 – 12:10	Peter Maunz	High-fidelity quantum operations in microfabricated surface ion traps
12:10 – 12:30	Topics for Breakout Sessions are chosen	
12:30	<i>LUNCH</i>	
13:30 – 14:10	Fabio Sebastiano	Cryogenic CMOS interfaces for large-scale quantum computers
14:10 – 15:00	Christian Ospelkaus	Microfabricated ion traps for scalable quantum information processing with trapped ions
15:00 – 15:30	<i>COFFEE BREAK</i>	
15:30 – 15:50	Bastian Hiltcher	BMBF Funding of Quantum Technologies
15:50 – 17:30	Break-out sessions	
18:00	<i>DINNER</i>	

Program

Friday, 26 April 2019

08:00	<i>BREAKFAST</i>	
09:00 – 09:40	Sven Höfling	Quantum dots as spin-photon interfaces
09:40 – 10:25	Summary of Breakout Sessions (3 x 15 Min)	
10:25 – 11:00	<i>INFORMAL DISCUSSIONS and COFFEE</i>	
11:00 – 11:40	Norbert M. Linke	A programmable trapped-ion quantum computer
11:40– 12:20	Jan Benhelm	Linking analog to digital: scalable instrumentation for quantum computing
12:20 – 12:30	Scientific organizers	Closing remarks
12:30	<i>LUNCH</i>	

End of the seminar and departure

NO DINNER for participants leaving on Saturday morning