

Program

Sunday, 24 March 2019

17:00 – 21:00 Registration

from 18:30 *BUFFET SUPPER / Informal get together*

Monday, 25 March 2019

07:30 *BREAKFAST*

08:30 – 08:45 Friedemann Reinhard **Opening and Welcome**
Elke Neu-Ruffing

08:45 – 09:45 Nir Bar-Gill **Enhanced polarization transfer and
many-body dynamics in spin ensembles
in diamond**

09:45 – 10:45 Emilie Bourgeois **Photoelectric readout of NV center
electron spin in diamond**

10:45 – 11:15 *COFFEE BREAK*

11:15 – 12:15 Mark Newton **Controlling and exploiting defects in
diamond**

12:15 **Conference Photo** (in front of the Physikzentrum/Main entrance)

12:30 *LUNCH*

Program

Monday, 25 March 2019

14:00 – 15:00	Eilon Poem	Experimental demonstration of quantum effects in microscopic heat engines made of nitrogen-vacancy centres in diamond
15:00 – 16:00	Posters	
16:00 – 16:30	<i>COFFEE BREAK</i>	
16:30 – 17:30	Posters	
17:30 – 18:30	Jan Meijer	High lateral addressing of single qubits in diamond
18:30 – 19:30	Lee Bassett	Tailored spin-readout strategies for nitrogen-vacancy centers in diamond
19:30	<i>HERAEUS DINNER at the Physikzentrum (cold & warm buffet, free beverages)</i>	

Program

Tuesday, 26 March 2019

07:00	<i>BREAKFAST</i>	
08:00 – 09:00	Dmitry Budker	Some Recent Results on Sensing using NV centers in Diamond
09:00 – 10:00	Thierry Debuisschert	Applications of ensembles of NV centers
10:00 – 10:30	<i>COFFEE BREAK</i>	
10:30 – 11:30	Fedor Jelezko	Diamond spin qubits: quantum sensing and photoelectric readout
11:30 – 12:30	Vincent Jacques	Imaging exotic spin textures at the nanoscale with a spin spin microscope
12:30	<i>LUNCH</i>	
14:00 – 15:00	Patrick Maletinsky	Single spin magnetic sensing of mesoscopic condensed matter systems
15:00 – 16:00	Jonathan Zopes	Three-dimensional localization of nuclear spins in diamond
16:00 – 16:30	<i>COFFEE BREAK</i>	
16:30 – 18:30	Tutorial (M. Plenio)	Control Methods for Colour Centers in Diamond
18:30	<i>DINNER</i>	

Program

Wednesday, 27 March 2019

07:00	<i>BREAKFAST</i>	
08:00 – 09:00	Romana Schirhagl	Diamond magnetometry in a cell
09:00 – 10:00	Anke Krüger	Methods for the efficient surface functionalization of diamond for the control of electronic surface properties
10:00 – 10:30	<i>COFFEE BREAK</i>	
10:30 – 11:30	Ulrik Lund Andersen	Color centers coupled to photonic and plasmonic systems
11:30 – 12:30	Helena Knowles	Engineering interactions of spin ensembles in diamond for quantum metrology
12:30	<i>LUNCH</i>	
14:00 – 15:00	Christoph Becher	Spin properties and quantum control of group-IV vacancy centers in diamond
15:00 – 16:00	David Hunger	Towards a coherent spin-photon interface for NV centers in diamond
16:00 – 16:30	<i>COFFEE BREAK</i>	
16:30 – 17:30	Anais Dréau	Quantum frequency conversion of single photons from a nitrogen-vacancy center in diamond to telecommunication wavelengths
17:30 – 18:30	Christopher Kay	Room-Temperature, Continuous-wave Diamond Maser
18:30 – 18:45	Friedemann Reinhard Elke Neu-Ruffing Jörg Wrachtrup	Closing remarks and poster awards
18:45	<i>DINNER</i>	

End of the seminar and Departure

Please note that there will be breakfast on Thursday morning 07:30 h for participants with an additional overnight.