

Program

Sunday, 11 August 2019

17:00 – 21:00 Registration

from 18:00 *BUFFET SUPPER / Informal get together*

Monday, 12 August 2019

07:30 *BREAKFAST*

Session 1

08:20 – 08:30 Lutz Trahms **Opening and welcome**

08:30 – 09:15 Dmitry Budker **Making (quantum) sense of dark particle-waves**

09:15 – 10:00 Timothy Chupp **Applications of Noble Gas Magnetometry**

10:00 – 10:30 *COFFEE BREAK*

Session 2

10:30 – 11:15 Jörg Wrachtrup **Multiparameter quantum sensing with nanoscale resolution**

11:15 – 12:00 Liam Hall **Spin probes for hyperpolarization and beyond**

12:00 – 12:45 Christof Wunderlich **Ultrasensitive magnetometer using a single trapped atomic ion**

12:45 *LUNCH*

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Session 3

14:00 – 14:45	Svenja Knappe	Magnetic imaging with microfabricated optically-pumped magnetometer arrays
14:45 – 15:30	Erling Riis	Miniaturisation of optically pumped magnetometers
15:30 – 16:00	Kasper Jensen	Optically pumped magnetometer for biomedical applications
16:00 – 16:30	<i>COFFEE BREAK</i>	
16:30 – 16:45	Stefan Jorda	About the Wilhelm and Else Heraeus Foundation

Session 4

16:45 – 17:45	Poster flash	
17:45 – 18:00	<i>BREAK</i>	
18:00 – 19:30	<i>HERAEUS DINNER at the Physikzentrum (cold & warm buffet, free beverages)</i>	
19:30	Posters	

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Tuesday, 13 August 2019

07:45 *BREAKFAST*

Session 5

08:45 – 09:30 Michael Romalis **Atomic magnetometry with dense alkali-metal vapors**

09:30 – 10:00 Kiwoong Kim **Hyperpolarized Imaging Applications based on Ultra-sensitive Magnetometry**

10:00 – 10:30 Arne Wickenbrock **Towards biomagnetic measurements with a diamond endoscope**

10:30 – 11:00 *COFFEE BREAK*

Session 6

11:00 – 11:45 Ronny Stolz **High resolution magnetic field sensing for geoscientific applications**

11:45 – 12:30 Roland Lammegger **A Coupled Dark State Magnetometer developed for Space Missions**

12:30 – 12:35 **Conference Photo**

12:35 *LUNCH*

Session 7

13:45 – 14:30 Georg Bison **Magnetometry challenges in fundamental science**

14:30 – 15:00 Szymon Pustelny **Searches for dark matter with a global network of optical magnetometers**

15:00 – 15:30 Alex Sushkov **Fundamental physics with ensembles of spins**

15:30 – 16:00 *COFFEE BREAK*

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Session 8

16:00 – 16:20	Short talk 1 Patrick Bevington	Non-Destructive Defect Imaging with a Radio-Frequency Optically Pumped Magnetometer
16:20 – 16:40	Short talk 2 Sylvain Karlen	Functionalized MEMS vapor cells for chip-scale magnetometry
16:40 – 17:00	Short talk 3 Anne Fabricant	Biomagnetism of Venus flytrap plants
17:00 – 17:20	Short talk 4 Yongqi Shi	GHz microwave field imaging with atomic vapor cells
17:20 – 17:40	Short talk 5 Peter Schwindt	Optical Beat Note Readout of a Magnetic Gradient
17:40	<i>BREAK</i>	
18:00	<i>DINNER</i>	

Program

Wednesday, 14 August 2019

07:45 *BREAKFAST*

Session 9

08:45 – 09:30 Morgan Mitchell **On energy resolution limits in magnetic field sensing**

09:30 – 10:15 Piet Schmidt **Quantum logic spectroscopy and sensing with trapped ions**

10:15 – 10:45 *COFFEE BREAK*

Session 10

10:45– 11:30 Rainer Körber **SQUID systems for ultra-sensitive magnetometry**

11:30 – 12:15 Justin Schneiderman **High- T_c SQUID based on-scalp MEG**

12:15 – 12:45 Elena Boto **A wearable multi-channel OPM-MEG system with lifetime compliance**

12:45 – 13:00 Lutz Trahms
Fedor Jelezko
Ilja Gerhardt **Poster awards and closing remarks**

13:00 *LUNCH*

End of the seminar and Farewell Coffee / 14:30 Departure