

# Program

## Sunday, 10 January 2016

17:00 – 21:00 Registration

18:30 *DINNER / Informal get together*

## Monday, 11 January 2016

08:00 BREAKFAST

09:00 Scientific organizers **Welcome**

09:00 – 09:45 Christoph Becher **Quantum frequency conversion of single photons: A toolbox for coupling hybrid quantum systems**

09:45 – 10:30 Arno Rauschenbeutel **Chiral nanophotonics and quantum optics**

10:30 – 11:00 *COFFEE BREAK*

11:00 – 11:45 Ilja Gerhardt **Single molecules interlinked with atomic vapors**

11:45 – 12:30 Fedor Jelezko **Diamond spin-photon interface**

12:30 **Conference Photo** (in the foyer of the lecture hall)

12:35 *LUNCH*

14:00 – 14:45 Markus Aspelmeyer **Towards a photon-phonon quantum interface**

14:45 – 15:30 Eugene Polzik **Back action free measurement on a spin and a mechanical oscillator**

15:30 – 16:00 *COFFEE BREAK*

# Program

**Monday, 11 January 2016**

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| 16:00 – 16:45 | Stephan Reitzenstein   | <b>Deterministic semiconductor based single photon sources for hybrid quantum networks</b> |
| 16:45 – 17:30 | Mete Atatüre   | <b>Creating photonic interfaces for hybrid networks</b>                                    |
| 17:30 – 18:00 | Frederik Dieleman  | <b>Quantum tomography and interference with surface plasmon polaritons</b>                 |
| 18:00 – 18:15 | Stefan Jorda   | <b>About the Wilhelm and Else Heraeus Foundation</b>                                       |
| 18:30         | <i>HERAEUS DINNER<br/>(cold &amp; warm buffet, free beverages)</i> |  |
| 19:30 – 22:00 | <b>Poster session I</b>  |  |

# Program

**Tuesday, 12 January 2016**

08:00	<i>BREAKFAST</i>	
09:00 – 09:45	Peter van Loock	<b>Optical hybrid quantum information processing</b>
09:45 – 10:30	Christine Silberhorn	<b>A monolithic parametric downconversion source of narrowband photon pairs</b>
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:45	Chen-Lung Hung	<b>Hybrid atom-nanophotonic lattices for quantum optics and many-body physics</b>
11:45 – 12:30	Stephan Götzinger	<b>Controlling the interaction of light and matter at the level of single quanta</b>
12:30	<i>LUNCH</i>	
14:00 – 14:45	Martin Plenio	<b>Diamond hybrid devices</b>
14:45 – 15:30	Jörg Wrachtrup	<b>Hybrid spin nodes for single photon processing</b>
15:30 – 16:00	<i>COFFEE BREAK</i>	
16:00 – 16:45	Richard Warburton	<b>An artificial Rb atom in a semiconductor with lifetime-limited linewidth</b>
16:45 – 17:15	Immo Söllner	<b>Demonstration of chiral light-matter interaction: Towards a deterministic on-chip spin-photon interface</b>
17:15 – 17:45	Jean-Philippe Poizat	<b>Ultra-low power all-optical switch using a single quantum dot embedded in a photonic wire</b>
17:45 – 18:15	Jürgen Eschner	<b>Programmable atom-photon quantum interface</b>
18:30	<i>DINNER / Industry Evening (free beverages)</i>	
19:30 – 22:00	<b>Poster session II</b>	

# Program

**Wednesday, 13 January 2016**

08:00	<i>BREAKFAST</i>	
09:00 – 09:45	Philipp Treutlein	<b>Hybrid atom-membrane optomechanics</b>
09:45 – 10:30	Wenjamin Rosenfeld	<b>Atom-photon entanglement and applications</b>
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:45	Costanza Toninelli	<b>Single-molecule hybrid photonics: Sensing and communication</b>
11:45 – 12:30	Darrick Chang	<b>Designer quantum systems using cold atoms coupled to photonic crystals</b>
12:30 – 12:45	Scientific organizers	<b>Best poster awards and résumé</b>
12:45	<i>LUNCH</i>	

***End of the seminar and FAREWELL COFFEE / Departure***