

# Program

## Sunday, 30 October 2011

17:00 – 21:00 Registration

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

## Monday, 31 October 2011

08:00 *BREAKFAST*

08:45 – 08:50 Harald Schwefel &  
Christoph Marquardt

**Welcome words**

08:50 – 09:05 Ernst Dreisigacker

**About the Wilhelm and Else Heraeus  
Foundation**

09:05 – 10:05 Dmitry Strekalov

**Whispering gallery mode resonators  
for nonlinear and quantum optics**

10:05 – 10:20 **Discussion**

10:20 – 10:45 *COFFEE BREAK*

10:45 – 11:45 Hakan Türeci

**Collective multi-mode effects in cavity  
QED**

11:45 – 12:00 **Discussion**

12:00 – 12:30 Stefan Rotter

**Pump-induced exceptional points in  
lasers above threshold**

12:30 **Conference Photo** (in the front of the Physikzentrum)

12:40 *LUNCH*

# Program

**Monday, 31 October 2011**

- 14:00 – 14:30 Andrea Aiello **Theory and practice of whispering gallery resonators**
- 14:30 – 14:45 **Discussion**
- 14:45 – 15:45 A. Douglas Stone **Steady-state Ab Initio Laser Theory and applications**
- 15:45 – 16:00 **Discussion**
- 16:00 – 16:30 *COFFEE BREAK*
- 16:30 – 17:00 Thomas Pertsch **Mode dynamics in coupled disk microresonators**
- 17:00 – 17:15 **Discussion**
- 17:15 – 17:35 Ralf Röhlsberger **Electromagnetically induced transparency via cooperative emission in a cavity**
- 17:35 – 17:45 **Discussion**
- 17:45 – 18:30 **Ultra-fast poster presentation – one poster – one minute – one slide**
- 19:00 *CONFERENCE DINNER*
- 21:00

*Social evening on invitation of the Wilhelm and Else Heraeus Foundation in the Physikzentrum (Posters will be on display for the whole conference)*

# Program

**Tuesday, 01 November 2011**

08:00            *BREAKFAST*

09:00 – 10:00   Oliver Benson            **Integrated whispering-gallery mode resonators for fundamental physics and sensing applications**

10:00 – 10:15   **Discussion**

10:15 – 10:45   *COFFEE BREAK*

10:45 – 11:45   Joseph Zyss                    **Polymer based micro-billiard lasers: a test-bed in nonlinear physics and applications**

11:45 – 12:00   **Discussion**

12:00 – 12:20   Abijith Kowligy            **All-optical Fredkin Gates in PPLN microdisks using quantum zeno blockade**

12:20 – 12:30   **Discussion**

12:30            *LUNCH*

14:00 – 18:30   ***Excursion: Hiking and coffee in the local hills***

18:30            *DINNER*

20:30 – 22:30   **Poster session**

# Program

**Wednesday, 02 November 2011**

08:00            *BREAKFAST*

09:00 – 10:00   Florian Marquardt            **Dynamics in optomechanical arrays**

10:00 – 10:15   **Discussion**

10:15 – 10:45   *COFFEE BREAK*

10:45 – 11:15   Tal Carmon                            **Brillouin cooling**

11:15 – 11:30   **Discussion**

11:30 – 12:00   Warwick Bowen                    **Towards non-classical mechanical  
states in an optomechanical  
whispering gallery mode resonator**

12:00 – 12:15   **Discussion**

12:15            *LUNCH*

# Program

**Wednesday, 02 November 2011**

14:00 – 15:00	Kerry Vahala	<b>UHQ microcavities on silicon without reflow</b>
15:00 – 15:15	<b>Discussion</b>	
15:15 – 15:35	Sunil Bhave	<b>Silicon monolithic MEMS + photonics systems</b>
15:35 – 15:45	<b>Discussion</b>	
15:45 – 16:15	<i>COFFEE BREAK</i>	
16:15 – 17:15	Michael Gorodetsky	<b>Asymptotic analysis of whispering gallery modes in optical microcavities</b>
17:15 – 17:30	<b>Discussion</b>	
17:30 – 18:30	Tobias Kippenberg	<b>Ultra high Q microcavities: from optical frequency combs to ground state cooling of mechanical motion</b>
18:30 – 18:45	<b>Discussion</b>	
18:45	<i>DINNER</i>	
20:30 – 20:50	Christophe Baker	<b>GaAs whispering gallery resonators for quantum optomechanics</b>
20:50 – 21:00	<b>Discussion</b>	
21:00 – 21:30	Ingo Breunig	<b>Quasi-phasematched optical parametric oscillations in whispering gallery resonators</b>
21:30 – 21:45	<b>Discussion</b>	
21:45 – 22:30	<b>Poster session</b>	

# Program

**Thursday, 03 November 2011**

08:00            *BREAKFAST*

09:00 – 10:00    Arno Rauschenbeutel    **Ultra-high Q whispering-gallery-mode  
bottle micro-resonators: properties  
and applications**

10:00 – 10:15    **Discussion**

10:15 – 10:45    *COFFEE BREAK*

10:45 – 11:15    Jan Wiersig                **Nonorthogonal pairs of copropagating  
optical modes in deformed microdisk  
cavities**

11:15 – 11:30    **Discussion**

11:30 – 12:00    Jörg Evers                 **Pathway interference in arrays and  
chains of microresonators**

12:00 – 12:15    **Discussion**

12:15            *LUNCH*

# Program

**Thursday, 03 November 2011**

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|---------------|---|---|
| 14:00 – 15:00 | Stefan Götzinger  | <b>Cavity QED with and without Q</b>              |
| 15:00 – 15:15 | <b>Discussion</b>   |   |
| 15:15 – 15:35 | Geoff Campbell  | <b>Ultra-precision diamond turning</b>            |
| 15:35 – 15:45 | <b>Discussion</b>   |   |
| 15:45 – 16:15 | <i>COFFEE BREAK</i>   |   |
| 16:15 – 17:15 | Nathaniel Stern   | <b>Cavity QED with microtoroidal resonators</b>   |
| 17:15 – 17:30 | <b>Discussion</b>   |   |
| 17:30 – 18:30 | Hui Cao   | <b>Wavelength-scale deformed microdisk lasers</b> |
| 18:30 – 18:45 | <b>Discussion</b>   |   |
| 18:45         | <i>DINNER</i>   |   |
| 20:30 – 20:50 | Tobias Grossmann  | <b>Low-threshold polymeric microgoblet lasers</b> |
| 20:50 – 21:00 | <b>Discussion</b>   |   |
| 21:00 – 21:30 | Frank Vollmer   | <b>Microcavity biosensing</b>                     |
| 21:30 – 21:45 | <b>Discussion</b>   |   |
| 21:45 – 22:30 | <b>Poster session, concluding remarks and poster awards</b> |   |

**Friday, 04 November 2011**

08:00 *BREAKFAST*

***Departure***