

**Monday // 22. February 2016**

**8:45      Opening**

**MoM:    2D Materials**

**Chair:** Jonathan Finley (TU München)

**9:00 – 10:20      Tony F. Heinz** (Stanford Univ.)

> **Tutorial:** Two-Dimensional Materials - Graphene and Beyond

**10:20 – 10:40      COFFEE BREAK**

**10:40 – 11:20      Alexander I. Tartakovskii** (Univ. Sheffield)

> Van der Waals heterostructures in photonics and polaritonics

**11:20 – 12:00      Dong-Keun Ki** (Univ. Geneva)

> Strong spin-orbit coupling in graphene induced by van der Waals interactions

**12:00 – 17:15      AFTERNOON BREAK**

**MoA:    Polaritons**

**Chair:** Sven Höfling (Univ. Würzburg)

**17:15 – 18:35      Benoit Deveaud** (EPFL)

> **Tutorial:** Polariton condensates, interactions and superfluidity

**18:35 – 18:55      COFFEE BREAK**

**Chair:** Hubert Krenner (Univ. Augsburg)

**18:55 - 19:35      Christian Schneider** (Univ. Würzburg)

> Exciton-polariton based electro-optical devices

**19:35 – 20:15      Meinrad Sidler** (ETH Zürich)

> Trion Polaritons in MoSe<sub>2</sub>

**Tuesday // 23. February 2016**

**TuM: Nano- and micromechanical systems**

**Chair:** Markus Aspelmeyer (Univ. Wien)

**9:00 – 10:20 Florian Marquardt** (Univ. Erlangen):

> **Tutorial:** Light, sound, and topology

**10:20 – 10:40 COFFEE BREAK**

**10:40 – 11:20 Johannes Güttinger** (ICFO Barcelona)

> Discontinuous energy decay in graphene-based nanomechanical resonators

**11:20 - 12:00 Stefan Müllegger** (Univ. Linz)

> Radio frequency STM on molecular resonators

**12:00 – 17:15 AFTERNOON BREAK**

**TuA1: Nano- and micromechanical systems**

**Chair:** Gunther Springholz (Univ. Linz)

**17:15 – 17:55 Hubert Krenner** (Univ. Augsburg)

> Rocking at the nanoscale - dynamic control of optically active nanostructures using a (more than) perfect wave

**TuA2: Topological systems**

**Chair:** Gunther Springholz (Univ. Linz)

**17:55 – 18:35 Vidya Madhavan** (Univ. Illinois Urbana)

> Massless and massive electrons: relativistic physics in condensed matter systems

**18:35 – 18:55 COFFEE BREAK**

**TuA3: Superconducting qubits**

**Chair:** Klaus von Klitzing (MPI-FKF Stuttgart)

**18:55 – 20:15 Anthony Megrant** (Google Inc., Santa Barbara)

> **Tutorial:** Progress toward building an analog quantum simulator and a fault-tolerant quantum computer with superconducting qubits

**Wednesday // 24. February 2016**

**WeM: Oxides**

**Chair:** Jochen Mannhart (MPI-FKF Stuttgart)

**9:00 – 10:20**      **Andrea D. Caviglia** (TU Delft)

> Electronic phase control in complex oxide heterostructures

**10:20 – 10:40**      **COFFEE BREAK**

**10:40 – 11:20**      **Nini Pryds** (TU Denmark)

> High-electron mobility at oxide interfaces

**11:20 – 12:00**      **Felix Baumberger** (Univ. Geneva)

> ARPES studies of oxide two-dimensional electron liquids

**12:00 – 17:15**      **AFTERNOON BREAK**

**WeA: POSTER SESSION**

**17:15 – 20:30**      **Gemeindesaal** (Mauterndorf City Hall )

**Thursday // 25. February 2016**

**ThM1: Quantum Transport I**

**Chair:** Klaus Ensslin (ETH Zürich)

**9:00 – 9:40**      **Audrey Cottet** (ENS Paris)  
> Circuit Quantum Electrodynamics with carbon nanotubes

**9:40 – 10:20**      **Arne Laucht** (University of New South Wales, Sidney)  
> Quantum information processing with single atoms in silicon

**10:20 – 10:40**      **COFFEE BREAK**

**ThM2: Quantum Transport II**

**Chair:** Christian Teichert (Montanuniv. Leoben)

**10:40 – 11:20**      **Mark Eriksson** (Univ. Wisconsin)  
> Quantum control of the semiconductor quantum dot hybrid qubit

**11:20 – 12:00**      **Andrea Hofmann** (ETH Zürich)  
> Free energy, work and dissipation of a driven single electron

**12:00 – 17:15**      **AFTERNOON BREAK**

**ThA: Solid State Quantum optics**

**Chair:** Val Zwiller (KTH Stockholm)

**17:15-18:35**      **Mete Atatüre** (Univ. Cambridge)  
> **Tutorial:** A Comparative Look at the Physics of Quantum Emitters

**18:35-18:55**      **COFFEE BREAK**

**18:55-19:35**      **Chao-Yang Lu** (USTC Hefei)  
> Towards multi-photon experiments with quantum dots

**19:35 -20:15**      **Niccolò Somaschi** (CNRS, LPN Marcoussis)  
> Quantum optics with one-dimensional artificial atoms

**Friday // 26. February 2016**

**FrM1: Quantum Dot Optics**

**Chair:** Armando Rastelli (Univ. Linz)

**9:00 – 9:40 Jacek Kasprzac** (CNRS Grenoble)

> Coherent dynamics & control of individual excitons in photonic nanostructures

**9:40 – 10:20 Tobias Heindel** (TU Berlin)

> Quantum optics with deterministic quantum dot microlenses

**10:20 – 10:40 COFFEE BREAK**

**FrM2 Nanowires**

**Chair:** Günther Bauer (Univ. Linz)

**10:40 – 11:20 Gregor Koblmüller** (TU München)

> Progress in III-V nanowire-based photonic systems

**FrM3 Topological systems II**

**Chair:** Günther Bauer (Univ. Linz)

**11:20 – 12:00 Felix von Oppen** (FU Berlin)

> Topological superconductivity in chains of magnetic adatoms

**13:00 – 16:00 Ski Race**

**FrA Strain-engineering**

**Chair:** Friedemar Kuchar (Montanuniv. Leoben)

**17:15 – 17:55 Detlev Grützmacher** (FZ Jülich)

> Group IV alloys: a versatile platform for electronic-photonic integrated circuitry (EPIC)

**17:55 – 18:35 Javier Martín-Sánchez** (Univ. Linz)

> Full control of in-plane stress tensor in nanomembranes

**18:35-18:45 Closing**

**19:15 – 22:00 Farewell Party, Burgschenke**