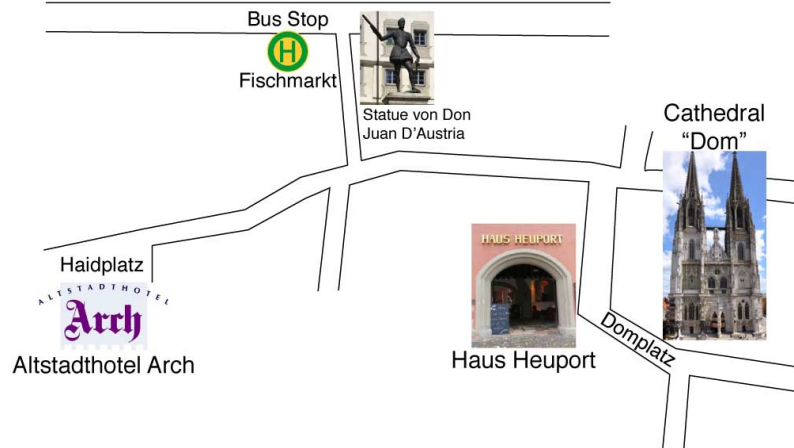


How to get to the workshop

Workshop Venue:

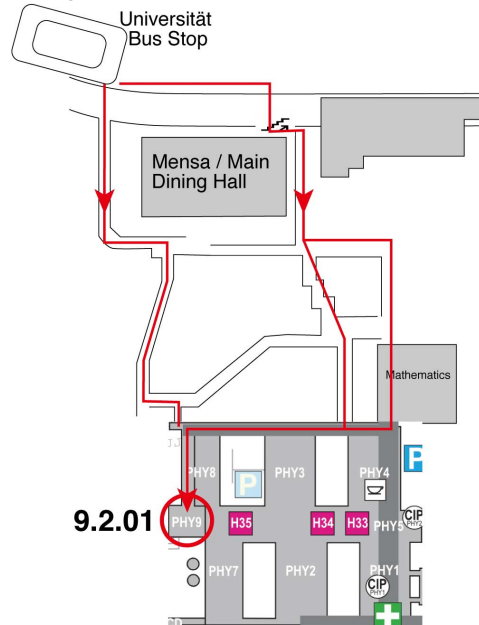
June 1 (Thursday): **Haus Heuport** (Domplatz 7, 93047 Regensburg)



June 2 (Friday):

Room 9.2.01, Dept. Phys., Univ. Regensburg

Take bus No. 6 (to "Klinikum") or No. 11 (to "Herm.-Höcherl-Straße"), then get off at "Universität"



Hotel (for invited speakers): **Altstadthotel Arch** (Haidplatz 2-4, 93047 Regensburg)

Tel: +49 (0)941 - 5866 - 0

<http://www.altstadthotelarch.de>

Boundary Effects and Correlations in One-Dimensional Systems

June 1-2, 2017
Regensburg, Germany

PROGRAM

Organizers: Milena Grifoni (Univ. Regensburg), Wataru Izumida (Tohoku Univ.)

Contact: Claudia Zange (claudia.zange@ur.de)



<http://www.physik.uni-r.de/bec1d>



Universität Regensburg



June 1 (Thursday)

Venue: Haus Heuport

- 8:30–9:00 Registration
- 9:00–10:45 Correlations in Carbon Nanotubes
- 9:00–9:35 **Shahal Ilani** (Weizmann Inst. Sci.)
Imaging interacting electron states in one dimension
- 9:35–10:10 **Massimo Rontani** (CNR NANO)
Carbon nanotubes as excitonic insulators
- 10:10–10:45 **Catalin Pascu Moca** (BME)
Wigner crystal phases in confined carbon nanotubes
- 10:45–11:15 Coffee break
- 11:15–13:00 Topological Insulator Nanowires
- 11:15–11:50 **Nadya Mason** (Univ. Illinois)
Mesoscopic transport in topological nanowires
- 11:50–12:25 **Joseph Dufouleur** (IFW-Dresden)
Transport in quantum confined 3D topological insulators
- 12:25–13:00 **Dieter Weiss** (Univ. Regensburg)
Transport in mesoscopic topological insulators: wires and antidot superlattices made from strained 3D-HgTe
- 13:00–15:00 Lunch with posters
- 15:00–16:10 Hybrids Based on Semiconducting Nanowires
- 15:00–15:35 **Peter Krogstrup** (Niels Bohr Inst.)
Hybrid materials for topological superconductivity
- 15:35–16:10 **Michael Wimmer** (TU Delft)
Majorana fermions in ballistic nanowires
- 16:10–16:30 Coffee break
- 16:30–17:40 Majorana Fermions in 1D Systems
- 16:30–17:05 **Karsten Flensberg** (Niels Bohr Inst.)
Majorana wires
- 17:05–17:40 **Magdalena Marganska** (Univ. Regensburg)
Majorana fermions in carbon nanotubes
- 20:00– Dinner at Haus Heuport

June 2 (Friday)

Venue: Univ. Regensburg

- 9:00–10:45 Quantum Quenches and Spin Correlations in 1D Systems
- 9:00–9:35 **Gergely Zaránd** (BME)
Semi-semiclassical theory of quantum quenches in one dimensional quantum systems
- 9:35–10:10 **Hartmut Buhmann** (Univ. Würzburg)
Quantum spin Hall and quantum anomalous Hall effect
- 10:10–10:45 **Björn Trauzettel** (Univ. Würzburg)
Chiral anomaly in real space from stable fractional charges at the edge of a quantum spin Hall insulator
- 10:45–11:15 Coffee break
- 11:15–13:00 Quantum Dots and Topology
- 11:15–11:50 **Jesper Nygård** (Niels Bohr Inst.)
Subgap states in hybrid single and double quantum dots based on nanowires
- 11:50–12:25 **Ramón Aguado** (ICMM-CSIC)
Measuring Majorana non-locality and spin structure with a quantum dot
- 12:25–13:00 **Reinhold Egger** (Univ. Düsseldorf)
Topological Kondo physics with Majorana fermions
- 13:00–14:00 Lunch
- 14:00– Departure

Poster List (June 1, 13:00–15:00)

- P-1 **Tobias Frank** (Univ. Regensburg)
Edge states in spin-orbit enhanced graphene
- P-2 **Andreas Hüttel** (Univ. Regensburg)
Not just a quantum box: tuning the shape of an electron in a nanotube with a magnetic field
- P-3 **Michael Kammermeier** (Univ. Regensburg)
Control of spin helix symmetry in semiconductor quantum wells by crystal orientation
- P-4 **Raphael Kozlovsky** (Univ. Regensburg)
Magneto-transport in 3D topological insulator nanowires
- P-5 **Lars Milz** (Univ. Regensburg)
Topological invariants in carbon nanotubes with superconducting pairing
- P-6 **Rin Okuyama** (Keio Univ.)
Topological phase transition and edge states in metallic single-wall carbon nanotube
- P-7 **Heng Wang** (Univ. Regensburg)
Electron-vibron coupling in finite suspended carbon nanotubes
- P-8 **Johannes Ziegler** (Univ. Regensburg)
Aharonov-Bohm type oscillations in topological insulator HgTe nanowires