Low Temperature Physics Division
Fachverband Tiefe Temperaturen (TT)

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Overview of Invited Talks and Sessions
(Lecture rooms H18-23; Poster D2)

Tutorials

TT 1.1 Sun 16:00–16:45 H20 Correlation functions of integrable models — •Frank Göhmann
TT 1.2 Sun 16:45–17:30 H20 Non-Abelian anyons — •Holger Frahm
TT 1.3 Sun 17:45–18:30 H20 Quantum quenches and equilibration of lattice and continuum systems — 
   •Michael Brockmann

Invited Talks

TT 5.7 Mon 11:30–12:00 H22 Coherent Suppression of Quasiparticle Dissipation in a Superconducting Artificial Atom — •Ioan Pop
TT 14.7 Mon 16:45–17:15 H19 Spectroscopic signatures of collective modes in superconductors — 
   •Lara Benfatto
TT 15.1 Mon 15:00–15:30 H20 Thermodynamics of Fractional Quantum Spin Liquids — •Yukitoshi Motome
TT 15.2 Mon 15:30–16:00 H20 Proximate Kitaev quantum spin liquid behavior in α-RuCl_3 — •Stephen Nagler
TT 15.3 Mon 16:00–16:30 H20 Kagome chiral spin liquid and symmetry protected topological phases — 
   •Yin-Chen He
TT 15.4 Mon 16:45–17:15 H20 Three-dimensional Kitaev spin liquids — •Maria Hermanns
TT 15.5 Mon 17:15–17:45 H20 Landau levels of Majorana fermions in a spin liquid — •Matthias Vojta
TT 24.1 Tue 9:30–10:00 H18 Detecting Weyl fermions in condensed matter — •Titus Neupert
TT 26.1 Tue 9:30–10:00 H20 Classical and quantum correlation induced bias asymmetries in coupled 
   spin systems — •Markus Ternes
TT 26.2 Tue 10:00–10:30 H20 Magnetic anisotropy goes spintronic — •Maarten R. Wegewijs
TT 26.3 Tue 10:30–11:00 H20 Engineering the Kondo Effect in clean Carbon Nanotubes — 
   •Christoph Strunk
TT 26.4 Tue 11:15–11:45 H20 Majorana Fermions in Atomic Chains — •Ali Yazdani
TT 26.5 Tue 11:45–12:15 H20 Magnetic adatoms on superconductors - a new venue for Majorana 
   bound states? — •Felix von Oppen
TT 30.1 Tue 11:00–11:30 H19 Selective correlations and heavy-fermionic behaviour in Iron-based superconductors — 
   •Luca de’ Medici
TT 32.1 Tue 14:00–14:30 H18 Coupled-wire constructions: New insights into the physics of interacting 
   topological systems in two and three dimension (and beyond) — 
   •Tobias Meng
TT 37.5 Tue 15:00–15:30 H23 Dynamical Coulomb Blockade theory of resonantly enhanced light 
   emission from a tunnel junction — •Wolfgang Belzig
TT 43.11 Wed 12:15–12:45 H20 Rare-earth-like behavior of transition metals substituted in Li_3N — 
   •Anton Jesche
TT 44.1 Wed 9:30–10:00 H22 Ultrafast photo-thermoelectric currents in graphene — •Alexander Holleitner
TT 46.6 Wed 11:30–12:00 H19 On Nematicity, Magnetism and Superconductivity in FeSe — •A. E. Böhmer
Regensburg 2016 – TT Overview

TT 52.1 Wed 15:00–15:30 H20 Hund’s Metals: a New Road to Strongly Correlated Electron Behavior — •Gabriel Kotliar

TT 52.2 Wed 15:30–16:00 H20 Screened Exchange Dynamical Mean Field Theory — •Silke Biermann

TT 52.3 Wed 16:00–16:30 H20 Dynamical Screening in Correlated Electron Materials — •Philipp Werner

TT 52.4 Wed 16:45–17:15 H20 Lattice stability of correlated electron materials — •Ivan Leonov

TT 52.5 Wed 17:15–17:45 H20 Tin Foil at the Nanometer Scale - from Electronic Correlations to Topological Physics — •Ralph Claessen

TT 52.6 Wed 17:45–18:15 H20 Electron Correlations in Nanosystems and 2D Materials: What’s so Different from Bulk? — •Tim Wehling

TT 54.7 Wed 16:45–17:15 H22 Cooling a nanomechanical resonator by electron transport in hybrid devices. — •Gianluca Rastelli

TT 62.1 Thu 9:30–10:00 H20 Conventional high temperature superconductivity: from A15 to MgB$_2$ to H$_3$S — •Igor Mazin

TT 62.2 Thu 10:00–10:30 H20 Conventional superconductivity at 203 K at high pressures — •Mikhail Eremets

TT 62.3 Thu 10:30–11:00 H20 Crystal Structure of 200 K-Superconducting Phase in Sulfur Hydride System — •Mari Einaga

TT 62.4 Thu 11:15–11:45 H20 Strong-Coupling Electron-Phonon Superconductivity in H$_3$S — •Warren E. Pickett

TT 62.5 Thu 11:45–12:15 H20 High-pressure phases of S, Se, and P hydrides and their superconducting properties: Predictions from ab-initio theory — •E. K. U. Gross

TT 62.6 Thu 12:15–12:45 H20 New sulfur hydride H$_3$S and excellent superconducting at high — •Tian Cui

TT 73.7 Thu 16:45–17:15 H19 Imaging currents in 2D quantum materials — •Katja Nowack

TT 81.1 Thu 16:15–16:45 H23 Non-Abelian gauge theory description of (dynamical) spin-orbit coupling effects in Fermi gases. — •Cosimo Gorini

Invited talks of the joint symposium SYTI
See SYTI for the full program of the symposium.

SYTI 1.1 Wed 9:30–10:10 H1 Topological insulators and topological superconductors — •Shoucheng Zhang

SYTI 1.2 Wed 10:10–10:50 H1 Three-dimensional topological insulators and superconductors — •Yoichi Ando

SYTI 1.3 Wed 10:50–11:30 H1 Interplay of magnetic and electronic states in pyrochlore iridates — •Leon Balents

SYTI 1.4 Wed 11:40–12:20 H1 Magnetic imaging of edge states — •Kathryn Moler

SYTI 1.5 Wed 12:20–13:00 H1 Sub-nm wide edge states at the dark side of a weak topological insulator — •Markus Morgenstern

Invited talks of the joint symposium SYQS
See SYQS for the full program of the symposium.

SYQS 1.1 Wed 15:00–15:30 H1 Magnonic macroscopic quantum states and supercurrents — •Burkard Hillebrands, Dmytro A. Bozhko, Alexander A. Serga

SYQS 1.2 Wed 15:30–16:00 H1 Elementary excitations of magnetic insulators and its heterostructures with metals — •Gerrit Bauer

SYQS 1.3 Wed 16:00–16:30 H1 Cavity Spintronics — •Can-Ming Hu

SYQS 1.4 Wed 16:45–17:15 H1 Hybrid Quantum Systems - Coupling Color Centers to Superconducting Cavities — •Johannes Majer

SYQS 1.5 Wed 17:15–17:45 H1 Quantum enhanced sensing with single spins in diamond — •Fedor Jelezko
Invited talks of the joint symposium SYES
See SYES for the full program of the symposium.

SYES 1.1 Fri 9:30–10:00 H1 Intrinsic Transport Coefficients and Momentum Space Berry Curvatures — Allan H MacDonald
SYES 1.2 Fri 10:00–10:30 H1 Berry phase linked spin-orbit torques in Ferromagnetic and Antiferromagnetic systems — Jairo Sinova
SYES 1.3 Fri 10:30–11:00 H1 Transport in Topological Insulators and Topological Superconductors: In Search of Majorana Fermions — Ewelina Hankiewicz
SYES 1.4 Fri 11:15–11:45 H1 Engineering Topological Quantum States: From 1D to 2D. — Jelena Klinovaja
SYES 1.5 Fri 11:45–12:15 H1 Skyrmions – Topological magnetization solitons for future spintronics — Stefan Blügel

Sessions

TT 1.1–1.3 Sun 16:00–18:30 H20 Tutorial: Correlations in Integrable Quantum Many-Body Systems
Graphene: Theory
(Joint session of DS, DY, HL, MA, O and TT organized by HL)

TT 2.1–2.10 Mon 9:30–12:30 H17 Superconductivity: Properties and Electronic Structure
Cold Atomic Gases
Correlated Electrons: Quantum Impurities, Kondo Physics
Graphene: Structure and Dynamics
(Joint session of DS, DY, HL, MA, O and TT organized by O)

TT 6.1–6.11 Mon 10:00–13:00 H19 Graphene: Theory
(Joint session of DS, DY, HL, MA, O and TT organized by HL)

TT 7.1–7.10 Mon 10:15–13:00 H18 Focus Session: Single Particle Sources for Electronic Devices
I
(Joint session of HL and TT organized by HL)

TT 8.1–8.10 Mon 10:15–13:00 H21 Focus Session: Single Particle Sources for Electronic Devices
II
(Joint session of HL and TT organized by HL)

TT 13.1–13.10 Mon 15:00–17:45 H18 Graphene: Transport
(Joint session of DS, DY, HL, MA, O and TT organized by HL)

TT 14.1–14.10 Mon 15:00–18:00 H19 Transport: Topological Insulators - 2D
Superconductivity: (General) Theory
(Joint session of DS, HL, MA, O and TT organized by TT)

TT 21.1–21.7 Mon 15:00–17:15 H22 Low-Dimensional Systems: Oxide Hetero-Interfaces
Spincaloric Transport
(Joint session of MA and TT organized by MA)

TT 22.1–22.4 Mon 17:45–18:45 H17 Graphene: Fabrication
(Joint session of DS, DY, HL, MA, O and TT organized by HL)
TT 23.1–23.10 Tue 9:30–12:30 H15 Quantum Information Systems (Joint session of HL, MA, O and TT organized by HL)
TT 24.1–24.12 Tue 9:30–13:00 H18 Superconductivity: Weyl Semimetals
TT 25.1–25.5 Tue 9:30–10:45 H19 Focus Session: Engineered Magnetic Impurities: Interaction and Superconductivity
TT 26.1–26.5 Tue 9:30–12:15 H20 Transport: Quantum Coherence and Quantum Information Systems - Theory 1 (Joint session of HL, MA and TT organized by TT)
TT 27.1–27.12 Tue 9:30–12:45 H22 Correlated Electrons: Quantum-Critical Phenomena - Experiment
TT 28.1–28.11 Tue 10:00–13:00 H21 Topology- and Symmetry-Protected Materials (Joint session of DS, HL, MA, O and TT organized by O)
TT 29.1–29.11 Tue 10:30–13:30 S051 Superconductivity: Fe-based Superconductors - Theory (Joint session of DS, MA, HL, O and TT organized by DS)
TT 30.1–30.7 Tue 11:00–13:00 H19 Correlated Electrons: Frustrated Magnets - Cu-based Systems & FeCr
TT 31.1–31.2 Tue 12:30–13:00 H8 Superconductivity: Cryoedetectors & Cryotechnique
TT 32.1–32.6 Tue 14:00–15:45 H18 Correlated Electrons: Frustrated Magnets - Chiral Magnets & RuCl$_3$
TT 33.1–33.6 Tue 14:00–15:30 H19 Correlated Electrons: Quantum-Critical Phenomena - Theory (Joint session of HL, MA, O and TT organized by TT)
TT 34.1–34.8 Tue 14:00–15:00 H20 Transport: Quantum Coherence and Quantum Information Systems - Theory 2 (Joint session of HL, MA and TT organized by TT)
TT 35.1–35.7 Tue 14:00–15:45 H21 Transport: Fluctuation and Noise (Joint session of DY and TT organized by TT)
TT 36.1–36.4 Tue 14:00–15:00 H22 Correlated Electrons: Quantum-Critical Phenomena - Theory (Joint session of DS, HL, MA, MM, O and TT organized by O)
TT 37.1–37.6 Tue 14:00–15:45 H23 Spintronics (Joint session of DS, HL, MA, O and TT organized by O)
TT 38.1–38.7 Tue 14:00–16:00 H24 Graphene: Optics (Joint session of DS, DY, HL, MA, O and TT organized by HL)
TT 39.1–39.8 Tue 14:00–16:00 S051 Symposium Topological Insulators: Status Quo and Future Directions (SYTI) (Joint symposium of HL, MA, O and TT organized by HT)
TT 40.1–40.3 Tue 14:45–15:45 H17 Correlated Electrons: Frustrated Magnets - Cu-based Systems & FeCr
TT 41.1–41.5 Wed 9:30–13:00 H1 Symposium Topological Insulators: Status Quo and Future Directions (SYTI) (Joint symposium of HL, MA, O and TT organized by TT)
TT 42.1–42.13 Wed 9:30–13:00 H18 Correlated Electrons: f-Electron & Heavy Fermion Systems (Joint session of DS, DY, HL, MA, O and TT organized by TT)
TT 43.1–43.12 Wed 9:30–13:00 H20 Transport: Graphene (Joint session of DS, DY, HL, MA, O and TT organized by TT)
TT 44.1–44.13 Wed 9:30–13:15 H22 Spintronics (incl. Quantum Dynamics) (Joint session of MA, HL and TT organized by MA)
TT 45.1–45.10 Wed 9:30–12:15 H32 Symposium on Quantum Signatures in Magnetism (SYQS) (Joint symposium of HL, MA, O and TT organized by MA)
TT 46.1–46.9 Wed 10:00–12:45 H19 Correlated Electrons: Other Materials
TT 47.1–47.9 Wed 10:30–13:00 H21 Focus Session: Realistic Dynamical Mean-Field Approaches to Correlated Quantum Materials
TT 48.1–48.10 Wed 10:30–13:00 H24 Low-Dimensional Systems: 1D - Theory
TT 49.1–49.5 Wed 15:00–17:45 H1 Symposium on Quantum Signatures in Magnetism (SYQS) (Joint symposium of HL, MA, O and TT organized by MA)
TT 50.1–50.15 Wed 15:00–19:15 H18 Correlated Electrons: Frustrated Magnets - Theory
TT 51.1–51.14 Wed 15:00–19:00 H19 Superconductivity: Tunneling, Josephson Junctions, SQUIDs
TT 52.1–52.6 Wed 15:00–18:15 H20 Focus Session: Realistic Dynamical Mean-Field Approaches to Correlated Quantum Materials
TT 53.1–53.12 Wed 15:00–18:15 H21 Low-Dimensional Systems: 1D - Theory
TT 54.1–54.11 Wed 15:00–18:15 H22 Transport: Carbon Nanotubes
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Location</th>
<th>Organizer(s)</th>
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<tbody>
<tr>
<td>Wed 15:00–18:30 H24</td>
<td>Frontiers of Electronic Structure Theory: Focus on Topology and Transport III (Joint session of DS, HL, MA, MM, O and TT organized by O)</td>
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<td>Wed 15:00–18:00 S053</td>
<td>Graphene: Adsorption, Intercalation and Doping (Joint session of DS, DY, HL, MA, O and TT organized by O)</td>
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<td>Wed 15:00–17:45 H32</td>
<td>Topological Insulators (Joint session of MA, DS, HL, O and TT organized by MA)</td>
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<td>Wed 15:00–18:30 Poster D</td>
<td>Transport: Poster Session</td>
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<td>Wed 15:00–18:30 Poster D</td>
<td>Low-Dimensional Systems: Poster Session</td>
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<td>Wed 18:15–20:30 Poster A</td>
<td>Frontiers of Electronic Structure Theory: Focus on Topology and Transport (Joint session of DS, HL, MA, MM, O and TT organized by O)</td>
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<td>Thu 9:30–13:00 H18</td>
<td>Correlated Electrons: (General) Theory 1</td>
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<td>Thu 9:30–12:45 H20</td>
<td>Focus Session: High Temperature Superconductivity in Hydrides</td>
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<td>Thu 9:30–13:00 H21</td>
<td>Low-Dimensional Systems: 2D - Theory</td>
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<td>Thu 9:30–13:00 H22</td>
<td>Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 1</td>
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<td>Thu 9:30–13:00 H23</td>
<td>Transport: Molecular Electronics and Photonics 1 (Joint session of CPP, DS, HL, MA, O and TT organized by TT)</td>
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<td>Thu 9:30–12:30 H34</td>
<td>Magnetic Heusler Materials, Semimetals and Oxides (Joint session of MA and TT organized by MA)</td>
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<td>Thu 10:30–13:30 H4</td>
<td>Oxides and Insulator Surfaces: Structure, Epitaxy and Growth (Joint session of O and TT organized by O)</td>
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<td>Thu 10:30–13:00 H19</td>
<td>Transport: Majorana Fermions</td>
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<td>Thu 10:30–13:15 H24</td>
<td>Frontiers of Electronic Structure Theory: Focus on Topology and Transport IV (Joint session of DS, HL, MA, MM, O and TT organized by O)</td>
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<td>Thu 10:30–12:45 S053</td>
<td>Graphene: Electronic Properties (Joint session of DS, DY, HL, MA, O and TT organized by O)</td>
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<td>Thu 10:30–13:30 S054</td>
<td>2D Materials beyond Graphene -Dynamics and Excitation (Joint session of DS, DY, HL, MA, O and TT organized by O)</td>
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<td>Thu 14:45–17:15 H10</td>
<td>Topological Insulators I (Joint session of DS, HL, MA, O and TT organized by HL)</td>
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<td>Thu 15:00–18:00 H19</td>
<td>Low-Dimensional Systems: Topological Order</td>
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<td>Thu 15:00–17:45 H20</td>
<td>Focus Session: Many-Body Interference and Quantum Statistical Physics (Joint session of DY and TT organized by DY)</td>
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<td>Thu 15:00–16:00 H23</td>
<td>Transport: Molecular Electronics and Photonics 2 (Joint session of CPP, DS, HL, MA, O and TT organized by TT)</td>
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<td>Thu 15:00–18:15 H24</td>
<td>Frontiers of Electronic Structure Theory: Focus on Topology and Transport V (Joint session of DS, HL, MA, MM, O and TT organized by O)</td>
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<td>Thu 15:00–17:30 H34</td>
<td>Multiferroics (Joint session of MA, DF, DS, KR and TT organized by MA)</td>
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<td>Thu 15:00–18:30 Poster D</td>
<td>Correlated Electrons: Poster Session</td>
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<td>Thu 15:30–18:30 H21</td>
<td>Superconductivity: Fe-based Superconductors - 122</td>
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<td>Thu 16:00–18:30 H18</td>
<td>Correlated Electrons: (General) Theory 2</td>
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<td>Thu 16:15–18:30 H23</td>
<td>Transport: Spintronics and Magnetotransport (Joint session of DS, HL, MA and TT organized by TT)</td>
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<td>16:30–18:30</td>
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<td>Correlated Electrons: Nonequilibrium Quantum Many-Body Systems 2</td>
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<tr>
<td>9:30–12:15</td>
<td>Fri</td>
<td>Symposium on Frontiers of Electronic Structure Theory: Focus on Topology and Transport (SYES)</td>
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<td>(Joint symposium of DS, HL, MA, MM, O and TT organized by O)</td>
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<td>9:30–12:00</td>
<td>Fri</td>
<td>Topological Insulators II (Joint session of DS, HL, MA, O and TT organized by O)</td>
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<td>10:30–13:00</td>
<td>Fri</td>
<td>Graphene: Electronic Properties &amp; Structure (Joint session of O and TT organized by O)</td>
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<td>10:30–13:00</td>
<td>Fri</td>
<td>Graphene: Electronic Properties and Structure (Joint session of DS, DY, HL, MA, O and TT organized by O)</td>
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**Annual General Meeting of the Low Temperature Physics Division**

Thursday 18:45 H19