

LOW TEMPERATURE PHYSICS

TIEFE TEMPERATUREN (TT)

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OVERVIEW OF INVITED TALKS AND SESSIONS

(lecture rooms HSZ 02, HSZ 105, HSZ 301, HSZ 304, P1)

Internal Symposia within TT

TT10 Symposium: “Solid State Meets Quantum Optics”

Organization: P. Hänggi, S. Kohler (Universität Augsburg), A. Shnirman (Universität Karlsruhe)

- TT 10.1 Mon 14:30 (HSZ 02) **Circuit QED: Quantum Optics With Superconducting Electrical Circuits**, Steven Girvin
- TT 10.2 Mon 15:00 (HSZ 02) **Cooper-Pair Molasses: Cooling a Nanomechanical Resonator with Quantum Noise**, Keith Schwab, Akshay Naik, Olivier Buu, Matthew LaHaye, Aashish Clerk, Andrew Armour, Miles Blencowe
- TT 10.3 Mon 15:30 (HSZ 02) **Fermionic atoms in a crystal structure of light**, Tilman Esslinger
- TT 10.4 Mon 16:30 (HSZ 02) **Nonclassical States, Tomography, and Quantum Information in Circuit QED**, E. Solano, M. Mariani, M.J. Storcz, F.K. Wilhelm, W.D. Oliver, A. Emert, A. Marx, R. Gross, H. Christ
- TT 10.5 Mon 17:00 (HSZ 02) **Integrated Atom Optics on a Bose-Einstein-Chip**, Claus Zimmermann

TT14 Symposium: “Molecular Electronics”

Organization: H. Schoeller (RWTH Aachen)

- TT 14.1 Tue 09:30 (HSZ 02) **Single-Molecule Transistor**, Hongkun Park
- TT 14.2 Tue 10:00 (HSZ 02) **Three-terminal transport through molecular junctions**, Herre van der Zant
- TT 14.3 Tue 10:30 (HSZ 02) **Transport through single molecules: vibrational and magnetic excitations**, Maarten Wegewijs, Christian Romeike, Herbert Schoeller, Walter Hofstetter
- TT 14.4 Tue 11:15 (HSZ 02) **Novel quantum transport effects in single-molecule junctions**, Felix von Oppen
- TT 14.5 Tue 11:45 (HSZ 02) **Electron Transport through Single Molecules**, Heiko B. Weber, Daniel Secker, Rolf Ochs, Mark Elbing, Ferdinand Evers, Max Köntopp, Marcel Mayor

TT22 Symposium: “Quantum Fluids”

Organization: R. Haley (University of Lancaster)

- TT 22.1 Tue 15:00 (HSZ 304) **A-B Transition and Anisotropic Scattering in Superfluid ^3He in Aerogel**, Yoonseok Lee
- TT 22.2 Tue 15:30 (HSZ 304) **Quantum Turbulence in superfluid ^3He** , Shaun Fisher
- TT 22.3 Tue 16:00 (HSZ 304) **The Transition in the Vortex Dynamics of Superfluid $^3\text{He-B}$** , V.B. Eltsov, R. Blaauwgeers, R. de Graaf, J. Kopu, M. Krusius
- TT 22.4 Tue 16:45 (HSZ 304) **Stable textures and defects in slabs of superfluid $^3\text{He-A}$** , Paul Walmsley, Andrei Golov
- TT 22.5 Tue 17:15 (HSZ 304) **Molecular Spectroscopy in Helium Droplets at Low Temperatures**, Alkwin Slenczka

TT27 Symposium: “Twenty Years High- T_c Cuprates - Recent Progress”

Organization: D. Manske (MPI Stuttgart), L. Alff (TU Darmstadt), R. Hackl (WMI Garching)

- TT 27.1 Thu 09:30 (HSZ 02) **Vorticity in the phase diagram of cuprates: evidence from Nernst effect and torque magnetometry**, N. P. Ong
- TT 27.2 Thu 10:00 (HSZ 02) **Recent Photoemission Data from Layered Manganites and Cuprates**, Zhi-xun Shen
- TT 27.3 Thu 10:30 (HSZ 02) **“Kinks”, Nodal Bilayer Splitting and Interband Scattering in YBCO**, Sergey Borisenko
- TT 27.4 Thu 11:30 (HSZ 02) **Universal magnetic spectrum in high-temperature superconductors**, Bernhard Keimer
- TT 27.5 Thu 12:00 (HSZ 02) **Spin-fluctuation mechanism of high-temperature superconductivity**, Andrey Chubukov
- TT 27.6 Thu 12:30 (HSZ 02) **The origin of anomalous transport in a high-temperature superconductor**, Nigel Hussey

Further Invited Talks

- TT 5.1 Mon 09:30 (HSZ 304) **Correlation effects on electronic transport through dots and wires**, Volker Meden
- TT 6.1 Mon 10:30 (HSZ 105) **Nuclear quadrupoles and magnetic-field effects in amorphous solids**, Alois Würger
- TT 4.1 Mon 11:00 (HSZ 301) **Current vs. Correlations: The Nonequilibrium Kondo Model**, Stefan Kehrein
- TT 15.1 Tue 12:30 (HSZ 02) **Electric field control of spin transport in carbon nanotubes**, Takis Kontos, Sangeeta Sahoo, Juerg Furer, Christian Hoffmann, Matthias Gräber, Audrey Cottet, Christian Schönenberger
- TT 20.1 Tue 14:00 (HSZ 105) **Theory of inelastic scattering from magnetic impurities**, Gergely Zarand, Laszlo Borda, Natan Andrei, Jan von Delft
- TT 23.1 Wed 14:30 (HSZ 02) **Electronic micro-refrigeration and thermometry**, Jukka Pekola, Alexander Savin, Matthias Meschke, Tero Heikkilä, Francesco Giazotto, Wiebke Guichard, Frank Hekking
- TT 24.1 Wed 16:30 (HSZ 02) **Cryogenic detectors**, Gabriel Chardin
- TT 29.1 Thu 09:30 (HSZ 304) **Decoherence of fermions subject to a quantum bath**, Florian Marquardt

Joint Symposia With Other Sections

SYSF Symposium: “Superfluidity”, Monday morning (see SYSF)

SYMS Symposium: “Magnetic Switching”, Monday afternoon (see SYMS)

SYNW Symposium: “Nano Wires”, Wednesday afternoon (see SYNW)

SYIM Symposium: “Intrinsic Modes”, Thursday afternoon (see SYIM)

Sessions

TT 1	Superconductivity: Tunnelling, Josephson Junctions, SQUIDs	Mon 09:30–11:15	HSZ 02	TT 1.1–1.7
TT 2	Superconductivity: Conductor Development	Mon 11:30–13:00	HSZ 02	TT 2.1–2.6
TT 3	Correlated Electrons: Quantum-Critical Phenomena	Mon 09:30–10:45	HSZ 301	TT 3.1–3.5
TT 4	Correlated Electrons: Quantum Impurities, Kondo Physics	Mon 11:00–13:00	HSZ 301	TT 4.1–4.7
TT 5	Transport: Nanoelectronics I - Quantum Dots, Wires, Point Contacts 1	Mon 09:30–13:00	HSZ 304	TT 5.1–5.12
TT 6	Solids At Low Temperature: Amorphous and Tunnel Systems, Glasses, ...	Mon 10:30–13:00	HSZ 105	TT 6.1–6.9
TT 7	Superconductivity & Solids At Low Temperature - Poster Session	Mon 14:00–17:45	P1	TT 7.1–7.73
TT 8	Correlated Electrons: Heavy Fermions	Mon 14:30–17:45	HSZ 301	TT 8.1–8.12
TT 9	Transport: Nanoelectronics III-Molecular Electronics	Mon 14:00–17:45	HSZ 304	TT 9.1–9.14
TT 10	Symposium Solid State Meets Quantum Optics	Mon 14:30–17:30	HSZ 02	TT 10.1–10.5
TT 11	Superconductivity: Heterostructures, Andreev Scattering, Proximity Effect, Coexistence	Tue 09:30–13:00	HSZ 301	TT 11.1–11.13
TT 12	Correlated Electrons: Low-dimensional Systems - Models	Tue 09:30–12:30	HSZ 304	TT 12.1–12.11
TT 13	Correlated Electrons: Metal Insulator Transition 1	Tue 11:45–13:00	HSZ 105	TT 13.1–13.5
TT 14	Symposium Molecular Electronics	Tue 09:30–12:15	HSZ 02	TT 14.1–14.5
TT 15	Transport: Nanoelectronics II - Spintronics and Magnetotransport 1	Tue 12:30–13:00	HSZ 02	TT 15.1–15.1
TT 16	Solids At Low Temperature: Quantum Liquids, Bose-Einstein Condensates, Ultra-cold Atoms, ...	Tue 09:30–11:30	HSZ 105	TT 16.1–16.8
TT 17	Superconductivity: Thin Film Preparation	Tue 14:00–14:45	HSZ 02	TT 17.1–17.3
TT 18	Superconductivity: Borides, Borocarbides, Carbides, ...	Tue 15:00–18:30	HSZ 02	TT 18.1–18.13
TT 19	Correlated Electrons: Low-dimensional Materials	Tue 14:00–19:00	HSZ 301	TT 19.1–19.19
TT 20	Transport: Nanoelectronics I - Quantum Dots, Wires, Point Contacts 2	Tue 14:00–16:00	HSZ 105	TT 20.1–20.7
TT 21	Transport: Nanoelectronics II - Spintronics and Magnetotransport 2	Tue 16:15–19:00	HSZ 105	TT 21.1–21.10
TT 22	Symposium Quantum Fluids	Tue 15:00–17:45	HSZ 304	TT 22.1–22.5
TT 23	Solids At Low Temperature: Cryogenics	Wed 14:30–16:15	HSZ 02	TT 23.1–23.6
TT 24	Superconductivity: Cryodetectors	Wed 16:30–19:00	HSZ 02	TT 24.1–24.9
TT 25	Correlated Electrons - Poster Session	Wed 14:30–18:30	P1	TT 25.1–25.117
TT 26	Transport - Poster Session	Wed 14:30–18:30	P1	TT 26.1–26.42
TT 27	Symposium Twenty Years High-T_c Cuprates - Recent Progress	Thu 09:30–13:00	HSZ 02	TT 27.1–27.6
TT 28	Correlated Electrons: General Theory	Thu 10:00–13:00	HSZ 301	TT 28.1–28.11
TT 29	Transport: Quantum Coherence and Quantum Information Systems 1	Thu 09:30–12:45	HSZ 304	TT 29.1–29.11
TT 30	Superconductivity: Twenty Years High-T_c Cuprates - Recent Progress	Thu 14:00–18:45	HSZ 02	TT 30.1–30.18
TT 31	Correlated Electrons: Metal Insulator Transition 2	Thu 14:00–18:30	HSZ 301	TT 31.1–31.17
TT 32	Transport: Quantum Coherence and Quantum Information Systems 2	Thu 14:00–17:45	HSZ 304	TT 32.1–32.14
TT 33	Superconductivity: Vortex Dynamics, Vortex Phases, Pinning	Fri 10:15–12:30	HSZ 304	TT 33.1–33.9
TT 34	Correlated Electrons: Spin Systems and Itinerant Magnets	Fri 10:15–12:30	HSZ 301	TT 34.1–34.9

TT Time Table

PV: Plenary Talk ; ÖAV: Public Talk; HV: Invited Talk ; FV: Keynote Talk ; SY: Symposium

SC: Superconductivity ; CE: Correlated Electrons ; TR: Transport ; SLT: Solids at Low Temperature ; NE: Nanoelectronics

Monday 27/03/06

8:30 *PV Chan* HSZ 01

9:30-11:15 **TT1** HSZ 02
SC - Tunneling, Josephson
Junctions, SQUIDs

11:30-13:00 **TT2** HSZ 02
SC - Conductor
Development

14:00-17:45 **TT7** P1
SC & SLT - *Posters*

18:00 *PV Jarzynski* HSZ 01

9:30-10:45 **TT3** HSZ 301
CE - Quantum-Critical
Phenomena

11:00-13:00 **TT4** HSZ 301
CE - Quantum Impurities,
Kondo Physics
11:00 HV Kehrein

14:30-17:45 **TT8** HSZ 301
CE - Heavy Fermions

9:30-13:00 **TT5** HSZ 304
TR - NE I: Quantum Dots,
Wires, Point Contacts 1
9:30 HV Meden

14:00-17:45 **TT9** HSZ 304
TR - NE III:
Molecular Electronics

10:30-13:00 **TT6** HSZ 105
SLT - Amorphous and
Tunnel Systems,
Glasses, ...
10:30 FV Würger

14:30-17:30 **TT10** HSZ 02
SY Solid State Meets
Quantum Optics
14:30 HV Girvin
15:00 HV Schwab
15:30 FV Esslinger
16:30 FV Solano
17:00 FV Zimmermann

Tuesday 28/03/06

8:30 *PV Loss* HSZ 01

9:30-13:00 **TT11** HSZ 301
SC - Heterostructures,
Andreev Scattering,
Proximity Effect,
Coexistence

13:15 *PV Götze* HSZ 04

14:00-14:45 **TT17** HSZ 02
SC - Thin Film Preparation

15:00-18:30 **TT18** HSZ 02
SC - Borides, Borocarbides,
Carbides, ...

9:30-12:30 **TT12** HSZ 304
CE - Low-dimensional
Systems, Models

11:45-13:00 **TT13** HSZ 105
CE - Metal Insulator
Transition 1

14:00-19:00 **TT19** HSZ 301
CE - Low-dimensional
Materials

9:30-12:15 **TT14** HSZ 02
SY Molecular Electronics
9:30 HV Park
10:00 HV v.d.Zant
10:30 FV Wegewijs
11:15 FV v. Oppen
11:45 FV Weber

12:15-13:00 **TT15** HSZ 02
TR - NE II: Spintronics
& Magnetotransport 1
12:30 HV Kontos

14:00-16:00 **TT20** HSZ 105
TR - NE I: Quantum Dots,
Wires, Point Contacts 2
14:00 HV Zarand

16:15-19:00 **TT21** HSZ 105
TR - NE II: Spintronics
& Magnetotransport 2

9:30-11:30 **TT16** HSZ 105
SLT - Quantum Liquids,
BEC, Ultra-cold Atoms ...

15:00-17:45 **TT22** HSZ 304
SY Quantum Fluids
15:00 HV Lee
15:30 FV Fisher
16:00 HV Eltsov
16:45 FV Walmsley
17:45 FV Slenczka

Wednesday 29/03/068:30 - 10:00 *PVs Zweck & Yacoby* HSZ 01

10:00 Festsitzung HSZ 01

14:30-16:15 **TT23** HSZ 02

SLT - Cryogenics

14:30 *HV Pekola*16:30-19:00 **TT24** HSZ 02

SC - Cryodetectors

16:30 *HV Chardin*20:00 *ÖAV Tolan*14:30-18:30 **TT25** P1CE - *Posters*14:30-18:30 **TT26** P1TR - *Posters***Thursday 30/03/06**8:30 *PV Krausz* HSZ 019:30-13:00 **TT27** HSZ 02SY Twenty Years High- T_c Cuprates

- Recent Progress

9:30 *HV Ong*10:00 *HV Shen*10:30 *FV Borisenko*11:30 *FV Keimer*12:00 *FV Chubukov*12:30 *FV Hussey*13:15 *PV Sackmann* HSZ 0114:00-18:45 **TT30** HSZ 02SC - Twenty Years High- T_c Cuprates

- Recent Progress

10:00-13:00 **TT28** HSZ 301

CE - General Theory

9:30-12:45 **TT29** HSZ 304

TR - Quantum Coherence and

Quantum Information

Systems 1

9:30 *HV Marquardt*14:00-18:30 **TT31** HSZ 301

CE - Metal Insulator

Transition 2

14:00-17:45 **TT32** HSZ 304

TR - Quantum Coherence and

Quantum Information

Systems 2

Annual General Meeting of the Section Low Temperature Physics

Thu 19:00-19:30 HSZ 304

Tagesordnung

- 1) Frühjahrstagung 2006, Statistics
- 2) Themenkreise, Symposien
- 3) Bericht: DPG und AKF Sitzungen
- 4) Frühjahrstagung 2007
- 5) Verschiedenes

Friday 31/03/068:30-10:00 *PVs Orrit & Dekker* HSZ 0110:15-12:30 **TT33** HSZ 304

SC - Vortex Dynamics,

Vortex Phases, Pinning

10:15-12:30 **TT34** HSZ 301

SC - Spin Systems

& Itinerant Magnets