

Low Temperature Physics Division Fachverband Tiefe Temperaturen (TT)

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Overview of Invited Talks and Sessions

(lecture rooms HSZ 03, HSZ 105, HSZ 301, and HSZ 304; Poster P1A and P1B)

Invited Talks

TT 1.1	Mon	10:15–10:45	HSZ 03	Strongly Correlated Fermionic Quantum Gases in Optical Lattices — •IMMANUEL BLOCH
TT 4.1	Mon	11:15–11:45	HSZ 105	Stimulated Cooperative Dynamics in Complex Solids — •ANDREA CAVALLERI
TT 13.1	Tue	9:30–10:00	HSZ 03	Photons, Qubits and Computers - A Quantum Mechanics Lab on a Chip — •ANDREAS WALLRAFF
TT 14.4	Tue	10:15–10:45	HSZ 105	Evidence for a novel superconducting state in high magnetic fields — •JOACHIM WOSNITZA
TT 16.8	Tue	11:30–12:00	HSZ 304	Two Dimensional Electron Gases at Oxide Interfaces — •JOCHEN MANNHART
TT 21.1	Tue	14:00–14:30	HSZ 304	Correlated charge detection in quantum dots — •KLAUS ENSSLIN
TT 22.1	Wed	9:30–10:00	HSZ 03	Thermal expansion and magnetostriction close to quantum criticality — •MARKUS GARST
TT 24.5	Wed	10:30–11:00	HSZ 301	Theory of time-resolved optical and photoemission spectroscopy for correlated electron systems — •MARCUS KOLLAR
TT 26.1	Wed	14:00–14:30	HSZ 03	Nanotube and Graphene ElectroMechanics — •ADRIAN BACHTOLD
TT 28.1	Wed	15:15–15:45	HSZ 105	Unconventional Superconductivity induced by Interfaces and Surfaces — •MATTHIAS ESCHRIG
TT 36.2	Thu	10:00–10:30	HSZ 03	Magnetism, superconductivity, and pairing symmetry in Fe-based superconductors — •ANDREY CHUBUKOV
TT 37.8	Thu	11:30–12:00	HSZ 105	Quantum dissipative spin ratchets — •MILENA GRIFONI
TT 39.1	Thu	9:30–10:00	HSZ 304	Electron spin resonance in Kondo systems — •PETER WÖLFLE

Program of the Focussed Session “The Mott Transition in Model Systems”

TT 1.1	Mon	10:15–10:45	HSZ 03	Strongly Correlated Fermionic Quantum Gases in Optical Lattices — •IMMANUEL BLOCH
TT 1.2	Mon	10:45–11:15	HSZ 03	Mott transition and metastable superconductivity of repulsive Fermions in optical lattices — •ACHIM ROSCH
TT 1.3	Mon	11:15–11:45	HSZ 03	Carrier dynamics of two-dimensional organic charge-transfer salts close to the Mott transition — •MARTIN DRESSEL, NATALIA DRICHKO, MICHAEL DUMM, JAIME MERINO
TT 1.4	Mon	12:00–12:30	HSZ 03	Mott Transition in Frustrated Lattice Systems — •HIROKAZU TSUNET-SUGU
TT 1.5	Mon	12:30–13:00	HSZ 03	Lattice Effects in Strongly Correlated π-electron Systems Close to the Mott Transition — •M. DE SOUZA, A. BRUEHL, C. STRACK, B. WOLF, R.S. MANNA, J.A. SCHLUETER, D. SCHWEITZER, M. LANG

Program of the Focussed Session “Superconducting Quantum Circuits”

TT 13.1	Tue	9:30–10:00	HSZ 03	Photons, Qubits and Computers - A Quantum Mechanics Lab on a Chip — ●ANDREAS WALLRAFF
TT 13.2	Tue	10:00–10:30	HSZ 03	Two-photon probe of the Jaynes-Cummings model and controlled symmetry breaking in circuit QED — FRANK DEPPE, MATTEO MARIANTONI, EDWIN P. MENZEL, ●ACHIM MARX, RUDOLF GROSS, S. SAITO, K. KAKUYANAGI, H. TANAKA, K. SEMBA, T. MENO, H. TAKAYANAGI, E. SOLANO
TT 13.3	Tue	10:30–11:00	HSZ 03	Landau-Zener Transitions in Qubit-Oscillator Settings — ●SIGMUND KOHLER
TT 13.4	Tue	11:15–11:45	HSZ 03	Experiments on the quantum of heat conductance — ●JUKKA PEKOLA, MATTHIAS MESCHKE, ANDREY TIMOFEEV, WIEBKE GUICHARD, MERI HELLE, MIKKO MÖTTÖNEN
TT 13.5	Tue	11:45–12:15	HSZ 03	Preparation of arbitrary quantum states in a microwave resonator — ●MAX HOFHEINZ, HAOHUA WANG, MARKUS ANSMANN, RADOSLAW BIALCZAK, ERIK LUCERO, MATTHEW NEELEY, AARON O'CONNELL, DANIEL SANK, JAMES WENNER, JOHN MARTINIS, ANDREW CLELAND
TT 13.6	Tue	12:15–12:30	HSZ 03	Phase diffusion in single-qubit lasers — ●STEPHAN ANDRÉ, VALENTINA BROSCO, ALEXANDER SHNIRMAN, GERD SCHÖN

Program of the Focused Session “Superconductivity and Magnetism in Ferropnictides and Related Materials”

TT 36.1	Thu	9:30–10:00	HSZ 03	Superconductivity and Magnetism in $\text{LaO}_{1-x}\text{F}_x\text{FeAs}$ — ●BERND BUECHNER, HANS-JOACHIM GRAFE, CHRISTIAN HESS, RUEDIGER KLINGELER, GUENTER BEHR, AGNIESZKA KONDRAT, NORMAN LEPS, GUILLAUME LANG, HANS-HENNING KLAUSS, HUBERTUS LUETKENS
TT 36.2	Thu	10:00–10:30	HSZ 03	Magnetism, superconductivity, and pairing symmetry in Fe-based superconductors — ●ANDREY CHUBUKOV
TT 36.4	Thu	11:15–11:45	HSZ 03	Relation of structure, magnetism, doping and pressure in AFe_2As_2 — ●HELGE ROSNER, DEEPA KASINATHAN, ALIM ORMECI, KATRIN KOCH, MIRIAM SCHMITT, WALTER SCHNELLE, CORNELIU MICLEA, MICHAEL NICKLAS, MANOJ KUMAR, CHRISTOPH GEIBEL, ULRICH SCHWARZ, ANDREAS LEITHE-JASPER
TT 36.5	Thu	11:45–12:00	HSZ 03	DFT studies of Iron-based Superconductors — ●LILIA BOERI, OLEG V. DOLGOV, ALEXANDER A. GOLUBOV, OLE KROGH ANDERSEN
TT 36.6	Thu	12:00–12:30	HSZ 03	Quasiparticle renormalization effects in the normal-state optical properties of iron pnictides — ●ALEXANDER BORIS, N.N. KOVALEVA, P. POPOVICH, Y. MATIKS, C.T. LIN, R.K. KREMER, L. BOERI, O.V. DOLGOV, I.I. MAZIN, B. KEIMER
TT 36.7	Thu	12:30–13:00	HSZ 03	C-axis transport of pnictide single crystals — ●PAUL MÜLLER, YURI KOVAL, GÜNTER BEHR, BERND BÜCHNER

Sessions

TT 1.1–1.5	Mon	10:15–13:00	HSZ 03	Focused Session: The Mott Transition in Model Systems
TT 2.1–2.10	Mon	10:15–13:00	HSZ 301	Transport: Nanoelectronics I - Quantum Dots and Wires, Point Contacts 1
TT 3.1–3.10	Mon	10:15–13:00	HSZ 304	Correlated Electrons: Spin Systems and Itinerant Magnets 1
TT 4.1–4.6	Mon	11:15–13:00	HSZ 105	Matter at Low Temperature: Cryotechnique, Cryodetectors and Measuring Devices
TT 5.1–5.41	Mon	13:00–16:45	P1A	Postersession Superconductivity: Materials - Fabrication and Properties
TT 6.1–6.72	Mon	13:00–16:45	P1A	Postersession Correlated Electrons: (General) Theory, Low-Dimensional Systems, Kondo Physics, Heavy Fermions, Quantum-Critical Phenomena
TT 7.1–7.5	Mon	13:00–16:45	P1B	Postersession Matter at Low Temperature: Materials
TT 8.1–8.8	Mon	13:00–16:45	P1B	Postersession Transport: Graphene and Carbon Nanotubes
TT 9.1–9.10	Mon	14:00–16:45	HSZ 03	Correlated Electrons: Metal-Insulator Transition 1
TT 10.1–10.9	Mon	14:00–16:30	HSZ 105	Superconductivity: Tunneling, Josephson Junctions, SQUIDS

TT 11.1–11.10	Mon	14:00–16:45	HSZ 301	Transport: Nanoelectronics I - Quantum Dots and Wires, Point Contacts 2
TT 12.1–12.7	Mon	14:00–16:00	HSZ 304	Correlated Electrons: Spin Systems and Itinerant Magnets 2
TT 13.1–13.6	Tue	9:30–12:30	HSZ 03	Focussed Session: Superconducting Quantum Circuits
TT 14.1–14.9	Tue	9:30–12:15	HSZ 105	Superconductivity: Non-Cuprate Non-Ferropnictide Superconductors
TT 15.1–15.12	Tue	9:30–13:00	HSZ 301	Correlated Electrons: Metal-Insulator Transition 2
TT 16.1–16.12	Tue	9:30–13:00	HSZ 304	Correlated Electrons: Low-dimensional Systems - Materials 1
TT 17.1–17.8	Tue	14:00–16:15	HSZ 03	Correlated Electrons: Quantum-Critical Phenomena 1
TT 18.1–18.7	Tue	14:00–16:00	HSZ 105	Superconductivity: Fabrication and Characterization
TT 19.1–19.5	Tue	14:00–15:15	HSZ 301	Correlated Electrons: Metal-Insulator Transition 3
TT 20.1–20.4	Tue	15:30–16:30	HSZ 301	Correlated Electrons: (General) Theory 1
TT 21.1–21.7	Tue	14:00–16:15	HSZ 304	Transport: Fluctuations and Noise
TT 22.1–22.12	Wed	9:30–13:00	HSZ 03	Correlated Electrons: Quantum-Critical Phenomena 2
TT 23.1–23.11	Wed	9:30–12:30	HSZ 105	Transport: Nanoelectronics III - Molecular Electronics
TT 24.1–24.12	Wed	9:30–13:00	HSZ 301	Correlated Electrons: (General) Theory 2
TT 25.1–25.13	Wed	9:30–13:00	HSZ 304	Superconductivity: Cuprate High-Temperature Superconductors 1
TT 26.1–26.17	Wed	14:00–19:00	HSZ 03	Transport: Graphene and Carbon Nanotubes
TT 27.1–27.4	Wed	14:00–15:00	HSZ 105	Superconductivity: Vortex Dynamics, Vortex Phases, Pinning
TT 28.1–28.9	Wed	15:15–18:00	HSZ 105	Superconductivity: Heterostructures, Andreev Scattering, Proximity Effect, Coexistence
TT 29.1–29.15	Wed	14:00–18:15	HSZ 301	Correlated Electrons: Low-dimensional Systems - Materials 2
TT 30.1–30.6	Wed	14:00–15:30	HSZ 304	Superconductivity: Cuprate High-Temperature Superconductors 2
TT 31.1–31.5	Wed	15:45–17:00	HSZ 304	Matter at Low Temperature: Materials
TT 32.1–32.36	Wed	14:00–18:00	P1A	Postersession Superconductivity: Josephson Junctions, SQUIDs, Heterostructures, Andreev Scattering, Vortex Physics, Cryodetectors, Measuring Devices, Cryotechnique
TT 33.1–33.26	Wed	14:00–18:00	P1A	Postersession Correlated Electrons: Metal Insulator Transition, Spin Systems and Itinerant Magnets
TT 34.1–34.7	Wed	14:00–18:00	P1A	Postersession Matter at Low Temperature: Quantum Liquids, Bose-Einstein Condensates, Ultra-Cold Atoms
TT 35.1–35.33	Wed	14:00–18:00	P1A	Postersession Transport: Nanoelectronics, Quantum Coherence and Quantum Information, Fluctuations and Noise
TT 36.1–36.7	Thu	9:30–13:00	HSZ 03	Focussed Session: Superconductivity and Magnetism in Ferropnictides and Related Materials
TT 37.1–37.12	Thu	9:30–13:00	HSZ 105	Transport: Nanoelectronics II - Spintronics and Magneto-transport
TT 38.1–38.12	Thu	9:30–13:00	HSZ 301	Correlated Electrons: Low-dimensional Systems - Models 1
TT 39.1–39.12	Thu	9:30–13:00	HSZ 304	Correlated Electrons: Heavy Fermions 1
TT 40.1–40.18	Thu	14:00–19:00	HSZ 03	Superconductivity: Ferropnictides 1
TT 41.1–41.18	Thu	14:00–19:00	HSZ 105	Matter at Low Temperature: Quantum Liquids, Bose-Einstein-Condensates, Ultra-cold Atoms
TT 42.1–42.6	Thu	14:00–15:30	HSZ 301	Correlated Electrons: Low-dimensional Systems - Models 2
TT 43.1–43.11	Thu	15:45–18:45	HSZ 301	Correlated Electrons: Heavy Fermions 2
TT 44.1–44.18	Thu	14:00–19:15	HSZ 304	Transport: Quantum Coherence and Quantum Information
TT 45.1–45.9	Fri	10:15–12:45	HSZ 03	Superconductivity: Ferropnictides 2
TT 46.1–46.9	Fri	10:15–12:45	HSZ 301	Correlated Electrons: Quantum Impurities, Kondo Physics

The posters should be attached to the poster sites already during the morning sessions.

Annual General Meeting Low Temperature Physics Division

Donnerstag 19:30-20:30 Raum HSZ 304