

GERMAN PHYSICAL SOCIETY SPRING MEETING

DRESDEN, MARCH 31 TO APRIL 4, 2014

Sessions of Topical Group „Low Temperatures” (TT)
Directly Related to Superconductivity

Monday, March 31, 2014

TT 5: Transport: Quantum Coherence and Quantum Information Systems - Experiment

(Monday) 09:30–10:45, HSZ 204

[Coplanar microwave resonators for superconductor/cold atom hybrid devices](#)

— •DANIEL BOTHNER, MARTIN KNUFINKE, BENEDIKT FERDINAND, DOMINIK

- ⊕ 09:30 TT 5.1 WIEDMAIER, VASILY FEDOROV, HELGE HATTERMANN, PATRIZIA WEISS, LÖRINC SÁRKÁNY, JÓZSEF FORTÁGH, DIETER KOELLE, and REINHOLD KLEINER

[Tunable coupling between two superconducting microwave resonators](#) —

- ⊕ 09:45 TT 5.2 •FRIEDRICH WULSCHNER, JAN GOETZ, BORJA PEROPADRE, ALEXANDER BAUST, ELISABETH HOFFMANN, DAVID ZUECO, FRANK DEPPE, EDWIN P. MENZEL, ACHIM MARX, JUAN JOSE GARCIA-RIPOLL, and RUDOLF GROSS

[Squeezing with a flux-driven Josephson parametric amplifier](#) — •L. ZHONG,

- ⊕ 10:00 TT 5.3 E. P. MENZEL, R. DI CANDIA, P. EDER, M. IHMIG, A. BAUST, M. HAEBERLEIN, K. INOMATA, T. YAMAMOTO, Y. NAKAMURA, E. SOLANO, F. DEPPE, A. MARX, and R. GROSS

[Interfacing rare earth spin ensembles with superconducting circuits](#) —

- ⊕ 10:15 TT 5.4 •SEBASTIAN PROBST, ANDREJ TKALCEC, DANIEL RIEGER, HANNES ROTZINGER, STEFAN WÜNSCH, PHILIPP JUNG, MICHAEL SIEGEL, ALEXEY V. USTINOV, and PAVEL BUSHEV

[Nuclear Spin Polarization in Bulk ZnSe:F](#) — •FABIAN HEISTERKAMP,

- ⊕ 10:30 TT 5.5 EUGENY A. ZHUKOV, VLADIMIR L. KORENEV, ALEX GREILICH, ALEXANDER PAWLIS, DMITRI R. YAKOVLEV, and MANFRED BAYER

TT 6: Transport: Quantum Coherence and Quantum Information Systems - Theory I

(Monday) 11:00–13:15, HSZ 204

- ⊕ 11:00 TT 6.1 [Efficient Qubit Readout Using Josephson Photomultipliers](#) — •LUKE C. G. GOVIA, EMILY J. PRITCHETT, CANRAN XU, MAXIM G. VAVILOV, BRITTON L.

T. PLOURDE, ROBERT McDERMOTT, and FRANK K. WILHELM

- ⊕ 11:15 TT 6.2 [Controlling qubits with tight frequency separation](#) — DANIEL EGGER, VISA VESTERINEN, RON SCHUTJENS, FADI ABU DAGGA, OLLI-PENTTI SAIRA, ALESSANDRO BRUNO, LEO DICARLO, and •FRANK WILHELM
- ⊕ 11:30 TT 6.3 [Parity switching and decoherence by quasiparticles in single-junction transmons](#) — •GIANLUIGI CATELANI
- ⊕ 11:45 TT 6.4 [Hybrid quantum magnetism in the strong and ultrastrong coupling regime](#) — •ANDREAS KURCZ, ALEJANDRO BERMUDEZ, and JUAN JOSE GARCIA-RIPOLL
- ⊕ 12:00 TT 6.5 [Optimizing quantum measurements in circuit QED](#) — •DANIEL EGGER and FRANK WILHELM
- ⊕ 12:15 TT 6.6 [Metamaterials for circuit QED: Quantum simulations and other applications](#) — •BRUNO G. TAKETANI and FRANK K. WILHELM
- ⊕ 12:30 TT 6.7 [Resonant versus dispersive gates in circuit quantum electrodynamics](#) — •PER LIEBERMANN and FRANK WILHELM
- ⊕ 12:45 TT 6.8 [From Coulomb-Blockade to Nonlinear Quantum Dynamics in a Superconducting Circuit with a Resonator](#) — VERA GRAMICH, •BJÖRN KUBALA, SELINA ROHRER, and JOACHIM ANKERHOLD
- ⊕ 13:00 TT 6.9 [Efficient characterization of spurious two-level systems in superconducting qubits under non-ideal conditions](#) — •MARKKU P. V. STENBERG, YUVAL R. SANDERS, and FRANK K. WILHELM

TT 7: Superconductivity: Cryodetectors

(Monday) 09:30–13:00, HSZ 03

- ⊕ 09:30 TT 7.1 [First demonstration of a TES with High-Frequency Readout at 0.65 THz](#) — •ARTEM KUZMIN, MICHAEL MERKER, SERGEY SHITOV, NIKOLAY ABRAMOV, MATHIAS ARNDT, STEFAN WUENSCH, KONSTANTIN ILIN, ALEXEY USTINOV, and MICHAEL SIEGEL
- ⊕ 09:45 TT 7.2 [Detecting single infrared photons with a Transition Edge Sensor for ALPS-II](#) — •FRIEDERIKE JANUSCHEK, NOEMIE BASTIDON, JAN DREYLING-ESCHWEILER, DIETER HORNS, and AXEL LINDNER
- ⊕ 10:00 TT 7.3 [Design and commissioning of a X-ray spectroscopy detector setup at storage rings](#) — •PASCAL SCHOLZ and SASKIA KRAFT-BERMUTH
- ⊕ 10:15 TT 7.4 [High-precision X-ray spectroscopy of highly-charged ions with silicon microcalorimeters](#) — •SASKIA KRAFT-BERMUTH, VICTOR ANDRIANOV, ALEXANDER BLEILE, ARTUR ECHLER, PETER EGELHOF, PATRICK GRABITZ, CAROLINE KILBOURNE, OLEG KISSELEV, DAN MCCAMMON, and PASCAL SCHOLZ
- ⊕ 10:30 TT 7.5 [Application of Calorimetric Low Temperature Detectors \(CLTD's\) for Precise Stopping Power Measurements of Heavy Ions in Matter](#) — •ARTUR ECHLER, PETER EGELHOF, PATRICK GRABITZ, HEIKKI KETTUNEN, SASKIA KRAFT-BERMUTH, MIKKO LAITINEN, KATRIN MÜLLER, MIKKO ROSSI,

WLADYSLAW TRZASKA, and ARI VIRTANEN

- [Solid state physics and engineering to push resolving power of magnetic calorimeters beyond 10000](#) — •DANIEL HENGSTLER, ANNA FERRING, LISA GAMER, JESHUA GEIST, MATHÄUS KRANTZ, ANDREAS PABINGER, CHRISTIAN PIES, CHRISTIAN SCHÖTZ, SEBASTIAN KEMPF, LOREDANA GASTALDO, ANDREAS FLEISCHMANN, and CHRISTIAN ENSS
- ⊕ 10:45 TT 7.6
- [Current sensing SQUIDs for the readout of low impedance cryogenic particle detectors](#) — •S. KEMPF, A. FERRING, M. WEGNER, A. FLEISCHMANN, L. GASTALDO, and C. ENSS
- ⊕ 11:00 TT 7.7
- 11:15 15 min. break.
- Topical Talk: [Probing Decoherence in Atomic-Sized Defects Using a Superconducting Qubit](#) — •JÜRGEN LISENFELD, GEORG WEISS, and ALEXEY V. USTINOV
- ⊕ 11:30 TT 7.8
- [Dc SQUIDs for the detection of Bose-Einstein-Condensates](#) — •MATTHIAS RUDOLPH, MICHAEL MERKER, JOHANNES MAXIMILIAN MECKBACH, MARTIN KNUFINKE, PETRA VERGIEN, FLORIAN JESSEN, SIMON BELL, PATRIZIA WEIß, HELGE HATTERMANN, KONSTANTIN ILIN, MICHAEL SIEGEL, JÓZSEF FORTÁGH, REINHOLD KLEINER, and DIETER KOELLE
- ⊕ 12:00 TT 7.9
- [Magnetic Johnson noise thermometry for \$\mu\$ K temperatures](#) — DANIEL ROTHFUSS, •ANDREAS REISER, ANDREAS FLEISCHMANN, and CHRISTIAN ENSS
- ⊕ 12:15 TT 7.10
- [Manipulation of a two-photon pump in superconductor -- semiconductor heterostructures](#) — •PETER P. ORTH, PAUL BAIREUTHER, ILYA VEKHTER, and JÖRG SCHMALIAN
- ⊕ 12:30 TT 7.11
- [Luminescence and photon coherence in superconducting pn-heterostructures](#) — •PATRIK HLOBIL, PETER ORTH, and JÖRG SCHMALIAN
- ⊕ 12:45 TT 7.12

TT 17: Superconductivity: Tunnelling, Josephson Junctions, SQUIDs

(Monday) 15:00–18:30, HSZ 201

- [Fabrication of a transparent NbAl interface in hybrid Josephson junctions and flux qubits with \$\pi\$ -shifters and their low-temperature measurements.](#) — •ANASTASIA SHCHERBAKOVA, KIRILL FEDOROV, KIRILL SHULGA, VALERY RYAZANOV, VITALY BOL'GINOV, DETLEF BECKMAN, and ALEXEY V. USTINOV
- ⊕ 15:00 TT 17.1
- [\$\phi\$ -Josephson junctions based on current injectors](#) — •ROSINA MENDITTO, HANNA SICKINGER, JOHANNES MAXIMILIAN MECKBACH, MICHAEL MERKER, KONSTANTIN ILIN, MICHAEL SIEGEL, DIETER KÖLLE, and REINHOLD KLEINER
- ⊕ 15:15 TT 17.2
- [Tuning the ground state of a \$\phi\$ -Josephson junction with current injectors](#) — •MATTHIAS ZIMMERMANN, KARL VOGEL, and WOLFGANG SCHLEICH
- ⊕ 15:30 TT 17.3
- [Hybrid superconducting magnetic tunnel junctions: Coexistence of TMR](#)
- ⊕ 15:45 TT 17.4

- [and Josephson effects](#) — •ONDREJ VAVRA, ROHIT SONI, NICO RUPPELT, ADRIAN PETRARU, HERMANN KOHLSTEDT, and CHRISTOPH STRUNK
- [Bicrystal Grain Boundary Junctions of P-doped and Co doped Ba-122 Thin Films](#) — •STEFAN SCHMIDT, SEBASTIAN DÖRING, FRANK SCHMIDL, VOLKER TYMPEL, FRITZ KURTH, KAZUMASA IIDA, BERNHARD HOLZAPFEL, TAKAHIKO KAWAGUCHI, YASUHIRO MORI, HIROSHI IKUTA, and PAUL SEIDEL
- ⊕ 16:00 TT 17.5
- [Planar hybrid Josephson junctions with BaFe_{2-x}Co_xAs₂ base electrode and a conventional Pb counter electrode using barriers from Au and TiO_x](#) — •SEBASTIAN DÖRING, STEFAN SCHMIDT, MANUEL MONECKE, VOLKER TYMPEL, FRANK SCHMIDL, FRITZ KURTH, KAZUMASA IIDA, INGOLF MÖNCH, BERNHARD HOLZAPFEL, and PAUL SEIDEL
- ⊕ 16:15 TT 17.6
- 16:30 15 min. break.
- [Coherent terahertz emission from Bi₂Sr₂CaCu₂O₈ intrinsic Josephson junction stacks](#) — •FABIAN RUDAU, BORIS GROSS, DEYUE AN, NICKOLAY KINEV, XIANJING ZHOU, MIN JI, YA HUANG, TAKESHI HATANO, ROMAN MINTS, PEIHENG WU, VALERY KOSHELETS, HUABING WANG, DIETER KOELLE, and REINHOLD KLEINER
- ⊕ 16:45 TT 17.7
- [Quantum Brownian motion in an oscillating tilted periodic potential: application to a Josephson junction under microwave irradiation in the dual regime](#) — •ANGELO DI MARCO, GIANLUCA RASTELLI, and FRANK W. J. HEKKING
- ⊕ 17:00 TT 17.8
- [Coherent radiation from the fractional Josephson effect](#) — •CHRISTOPH OHM and FABIAN HASSLER
- ⊕ 17:15 TT 17.9
- [Long Range Triplet Josephson Current and 0- \$\pi\$ Transition in Tunable Domain Walls](#) — THOMAS E. BAKER, ADAM C. RICHIE-HALFORD, and •ANDREAS BILL
- ⊕ 17:30 TT 17.10
- [Quantum transport signatures of chiral edge states in Sr₂RuO₄](#) — •RAKESH TIWARI, W BELZIG, M SIGRIST, and C BRUDER
- ⊕ 17:45 TT 17.11
- [Quasiperiodicity and revivals in dynamics of quantum phase slips in Josephson junction chains and superconducting nanowires](#) — •GIANLUCA RASTELLI, MIHAJLO VANEVIĆ, and WOLFGANG BELZIG
- ⊕ 18:00 TT 17.12
- [Correlated transport through junction arrays in the small Josephson energy limit: incoherent Cooper-pairs and hot electrons](#) — JARED COLE, JUHA LEPPÄKANGAS, and •MICHAEL MARTHALER
- ⊕ 18:15 TT 17.13

TT 30: Superconductivity - Poster Session

(Monday) 15:00–19:00, P2

- ⊕ 15:00 TT 30.1 [Sample size dependence of the Josephson behavior of the interfaces in pyrolytic graphite](#) — ANA BALLESTAR and •PABLO ESQUINAZI
- ⊕ 15:00 TT 30.2 [Organic crystals: From semi- to superconductors](#) — •ANTONIA MORHERR, SEBASTIAN WITT, CHRISTIAN KLEIN, JAN-PETER BÄCKER, and CORNELIUS

KRELLNER

- ⊕ 15:00 TT 30.3 [Direct measurement of the magnetic anisotropy of thin sputtered MgB₂ films on MgO substrates in high magnetic fields](#) — •SAVIO FABRETTI, INGA-MAREEN IMORT, TIMO KUSCHEL, THOMAS DAHM, ANDY THOMAS, VEERENDRA K. GUDURU, and ULI ZEITLER
- ⊕ 15:00 TT 30.4 [High trapped fields in MgB₂ bulk samples](#) — •WOLFGANG HÄBLER, GÜNTER FUCHS, KONSTANTIN NENKOV, JULIANE SCHEITER, AXEL HANDSTEIN, BERNHARD HOLZAPFEL, and LUDWIG SCHULTZ
- ⊕ 15:00 TT 30.5 [Thick BaHfO₃ doped YBa₂Cu₃O_{7-δ} films on textured Ni-W tapes](#) — •MAX SIEGER, JENS HÄNISCH, KAZUMASA IIDA, UWE GAITZSCH, CHRISTIAN RODIG, RAINER NAST, LUDWIG SCHULTZ, BERNHARD HOLZAPFEL, and RUBEN HÜHNE
- ⊕ 15:00 TT 30.6 [Ba₂YNbO₆ and Ba₂YTaO₆ doped YBa₂Cu₃O_{7-δ} films](#) — •LARS OPPERDEN, JENS HÄNISCH, MAX SIEGER, MARCO BIANCHETTI, JUDITH MACMANUS-DRISCOLL, LUDWIG SCHULTZ, and RUBEN HÜHNE
- ⊕ 15:00 TT 30.7 [Superconductivity in epitaxial Ru-doped BaFe₂As₂ thin films](#) — •MARCO LANGER, JAN ENGELMANN, VADIM GRINENKO, EIKE AHRENS, FABIAN NITSCHKE, BERNHARD HOLZAPFEL, LUDWIG SCHULTZ, and RUBEN HÜHNE
- ⊕ 15:00 TT 30.8 [Delta-doped La_{2-x}\(Sr,Ba\)_xCuO₄ thin films grown by oxide molecular beam epitaxy](#) — •CHRISTOPHER DIETL, FEDERICO BAIUTTI, MENG WU, GEORG CRISTIANI, GENNADY LOGVENOV, EVA BENCKISER, and BERNHARD KEIMER
- ⊕ 15:00 TT 30.9 [Photo-induced quasipersistent modification of the normal and superconducting properties of niobium thin films](#) — •DANIEL KOHLBERGER, DANIEL BOTHNER, ELISABETH KOROKNAY, MICHAEL JETTER, PETER MICHLER, REINHOLD KLEINER, and DIETER KOELLE
- ⊕ 15:00 TT 30.10 [Magneto-acoustic quantum oscillations in YNi₂B₂C](#) — J. NÖSSLER, •S. YASIN, S. ERFANIFAM, R. SEERIG, G. BEHR, S. ZHERLITSYN, and J. WOSNITZA
- ⊕ 15:00 TT 30.11 [Strong coupling behavior of the neutron resonance mode in unconventional superconductors](#) — •PATRIK HLOBIL, BORIS NAROZHNY, and JÖRG SCHMALIAN
- ⊕ 15:00 TT 30.12 [Effect of reduced dimensionality on superconductivity in CeCoIn₅ probed by thermal expansion and magnetostriction measurements](#) — •KAI GRUBE, SEBASTIAN ZAUM, FELIX EILERS, ROLAND SCHÄFER, ERIC D. BAUER, JOE D. THOMPSON, and HILBERT V. LÖHNEYSSEN
- ⊕ 15:00 TT 30.13 [Strong electron-phonon coupling and the superconducting energy gap in SrPt₃P](#) — •DIEGO A. ZOCCO, SVEN KRANNICH, ROLF HEID, KLAUS-PETER BOHNEN, THOMAS FORREST, ALEXEI BOSSAK, and FRANK WEBER
- ⊕ 15:00 TT 30.14 [Multigap superconductivity in locally non-centrosymmetric SrPtAs as revealed by nuclear quadrupole resonance](#) — •FELIX BRÜCKNER, RAJIB SARKAR, MARCO GÜNTHER, HANS-HENNING KLAUSS, HANNES KÜHNE, HUBERTUS LUETKENS, PABITRA BISWAS, and TITUS NEUPERT
- ⊕ 15:00 TT 30.15 [Fermi surface investigations on the filled skutterudite LaRu₄As₁₂ superconductor](#) — •J. KLOTZ, K. GÖTZE, V. PETZOLD, H. ROSNER, T.

CICHOREK, Z. HENKIE, and J. WOSNITZA

- ⊕ 15:00 TT 30.16 [Superconductivity and ferromagnetism in nanostructured Bi₃Ni](#) — •R. SCHÖNEMANN, T. HERRMANNSDÖRFER, M. NAUMANN, R. SKROTZKI, M. KAISER, M. HEISE, M. RUCK, K. KUMMER, D. GRAF, and J. WOSNITZA
- ⊕ 15:00 TT 30.17 [¹¹⁹Sn NMR investigations on superconducting Ca₃Ir₄Sn₁₃](#) — •RAJIB SARKAR, FELIX BRUECKNER, MARCO GÜNTER, CEDOMIR PETROVIC, KEFENG WANG, HUBERTUS LUETKENS, PABITRA BISWAS, ELVEZIO MORENZONI, ALEX AMATO, and HANS-HENNING KLAUSS
- ⊕ 15:00 TT 30.18 [Doping-induced superconductivity in germanium](#) — •M. NAUMANN, R. SKROTZKI, T. HERRMANNSDÖRFER, R. SCHÖNEMANN, V. HEERA, J. FIEDLER, M. VOELSKOW, A. MÜCKLICH, B. SCHMIDT, W. SKORUPA, M. HELM, and J. WOSNITZA
- ⊕ 15:00 TT 30.19 [Magnetic-field-dependent reentrant superconductivity in Ga-implanted Si](#) — •R. SKROTZKI, T. HERRMANNSDÖRFER, R. SCHÖNEMANN, V. HEERA, J. FIEDLER, E. KAMPERT, F. WOLFF-FABRIS, T. FÖRSTER, M. VOELSKOW, A. MÜCKLICH, B. SCHMIDT, W. SKORUPA, M. HELM, and J. WOSNITZA
- ⊕ 15:00 TT 30.20 [Electronic properties of undoped and doped aromatic hydrocarbon systems](#) — •FRIEDRICH ROTH, BENJAMIN MAHNS, ERIC MÜLLER, BERND BÜCHNER, and MARTIN KNUPFER
- ⊕ 15:00 TT 30.21 [Investigation of the electronic properties of the dual-layered charge transfer salt κ-α'-\(BEDT-TTF\)₂Ag\(CF₃\)₄\(TCE\)](#) — •MICHAELA ALTMAYER, ROSER VALENTI, and HARALD O. JESCHKE
- ⊕ 15:00 TT 30.22 [Stability of supercurrents and condensates in type I superconductors](#) — PAVEL LIPAVSKY, •KLAUS MORAWETZ, BRETISLAV SOPIK, and MICHAEL MAENNEL
- ⊕ 15:00 TT 30.23 [DFT Study on 122 pnictide superconductors and related compounds](#) — •TOBIAS FÖRSTER, HELGE ROSNER, ANDREY POLYAKOV, MAREK BARTKOWIAK, ANDREA D. BIANCHI, and JOCHEN WOSNITZA
- ⊕ 15:00 TT 30.24 [Effect of weak disorder on the phase competition in iron pnictides](#) — •MAREIKE HOYER, SERGEY SYZРАНOV, and JÖRG SCHMALIAN
- ⊕ 15:00 TT 30.25 [Manifestation of nematic degrees of freedom in the Raman response of pnictides](#) — •UNA KARAHASANOVIC and JOERG SCHMALIAN
- ⊕ 15:00 TT 30.26 [High-pressure synthesis of 1111-pnictides and related systems](#) — •AGNES ADAMSKI, AMIR HAGHIGHIRAD, STEFFI HARTMANN, NATALIJA VAN WELL, and CORNELIUS KRELLNER
- ⊕ 15:00 TT 30.27 [Microscopic investigations of the electronic phase diagram of LaOFe_{1-x}Co_xAs](#) — •PHILIPP MATERNE, GIACOMO PRANDO, HEMKE MAETER, SABINE WURMEHL, BERND BUECHNER, HUBERTUS LUETKENS, and HANS-HENNING KLAUSS
- ⊕ 15:00 TT 30.28 [Antimony Substitution in Rare Earth 1111-Compounds](#) — •DANIEL SCHMIDT, SEBASTIAN WOLF, and HANS F. BRAUN
- ⊕ 15:00 TT 30.29 [Temperature dependent density of states study in stoichiometric LiFeAs](#) — •PRANAB KUMAR NAG, DANNY BAUMANN, RONNY SCHLEGEL, ROBERT BECK, SABINE WURMEHL, BERND BÜCHNER, and CHRISTIAN HESS

- [Induced magnetism in off-stoichiometric LiFeAs](#) — •ROBERT BECK, UWE GRÄFE, IGOR MOROZOV, PHILIPP MATERNE, GIACOMO PRANDO, HANS-JOACHIM GRAFE, SABINE WURMEHL, and BERND BÜCHNER
- ⊕ 15:00 TT 30.30
- [High-field NMR spectroscopy of the iron-based superconductor LiFeAs](#) — •HANNES KÜHNE, ARNEIL P. REYES, PHILIP L. KUHNS, HANS-JOACHIM GRAFE, SAICHARAN ASWARTHAM, SABINE WURMEHL, and BERND BÜCHNER
- ⊕ 15:00 TT 30.31
- [Local probe studies at copper containing 111 compounds](#) — •SIRKO KAMUSELLA, GOHIL S THAKUR, ZEBHA HAQUE, ASHOK K GANGULI, L C GUPTA, HUBERTUS LUETKENS, and HANS-HENNING KLAUSS
- ⊕ 15:00 TT 30.32
- [Dilatometric measurements of the detwinning process in EuFe₂As₂](#) — •INA-MARIE PIETSCH, CHRISTIAN STINGL, HIRALE S. JEEVAN, JANNIS MAIWALD, NORA BACH, and PHILIPP GEGENWART
- ⊕ 15:00 TT 30.33
- 15:00 TT 30.34 The contribution has been withdrawn.
- [A light scattering study of detwinned BaFe₂As₂](#) — •ANDREAS BAUM, ANDREAS WALTER, BERNHARD MUSCHLER, FLORIAN KRETZSCHMAR, JIUN-HAW CHU, JAMES G. ANALYTIS, IAN R. FISHER, and RUDI HACKL
- ⊕ 15:00 TT 30.35
- [Resistivity anisotropy measurements on Ca\(Fe_{1-x}Co_x\)₂As₂](#) — •STEPHAN KNÖNER, BERND WOLF, HARALD SCHUBERT, SHENG RAN, PAUL CANFIELD, and MICHAEL LANG
- ⊕ 15:00 TT 30.36
- [Spin Reorientation and Resonance Mode in Ba_{1-x}Na_xFe₂As₂](#) — •FLORIAN WABER, SABINE WURMEHL, SAICHARAN ASWARTHAM, YVAN SIDIS, ASTRID SCHNEIDEWIND, JI-TAE PARK, BERND BÜCHNER, and MARKUS BRADEN
- ⊕ 15:00 TT 30.37
- [Low-temperature specific heat of K_{0.71}Na_{0.29}Fe₂As₂ down to 20 mK](#) — •ANDREAS REIFENBERGER, MARIUS HEMPEL, ANDREAS FLEISCHMANN, RUEDIGER KLINGELER, and CHRISTIAN ENSS
- ⊕ 15:00 TT 30.38
- [The electronic phase diagram of Ba_{1-x}Rb_xFe₂As₂ investigated by thermodynamic measurements](#) — •D. GRUNER, F. STECKEL, V. GRINENKO, S. ASWARTHAM, C. HESS, A. U. B. WOLTER, S. WURMEHL, and B. BÜCHNER
- ⊕ 15:00 TT 30.39
- [Strain experiments on Fe based superconductors using flexible substrates](#) — •STEFAN RICHTER, SASCHA TROMMLER, FRITZ KURTH, KAZUMASA IIDA, JENS HÄNISCH, LUDWIG SCHULTZ, and RUBEN HÜHNE
- ⊕ 15:00 TT 30.40
- [Preparation and characterization of thin films of the unconventional superconductor FeSe](#) — EIKE VENZMER, ALEXANDER KRONENBERG, and •MARTIN JOURDAN
- ⊕ 15:00 TT 30.41
- [Applied dynamic strain on FeSe_{0.5}Te_{0.5} through piezo-electric substrates.](#) — •SEBASTIAN MOLATTA, SASCHA TROMMLER, JENS HÄNISCH, KAZUMASA IIDA, MICHAEL SCHULZE, SABINE WURMEHL, BERND BÜCHNER, LUDWIG SCHULTZ, and RUBEN HÜHNE
- ⊕ 15:00 TT 30.42
- [Preparation of planar SN and SNS' junctions on Ba-122 iron pnictide single crystals](#) — •NOOR HASAN, STEFAN SCHMIDT, SEBASTIAN DÖRING, VOLKER TYMPEL, FRANK SCHMIDL, PAUL SEIDEL, and THOMAS WOLF
- ⊕ 15:00 TT 30.43
- ⊕ 15:00 TT 30.44 [Long-range spin transport and spin-charge separation in nanoscale](#)

- [superconductors](#) — MICHAEL J. WOLF, FLORIAN HÜBLER, STEFAN KOLENDA, HILBERT VON LÖHNESEN, and •DETLEF BECKMANN
- ⊕ 15:00 TT 30.45 [Nonlocal transport and heating in superconductors under dual-bias conditions](#) — •STEFAN KOLENDA, MICHAEL J. WOLF, DIMITRIJ S. GOLUBEV, ANDREI ZAIKIN, and DETLEF BECKMANN
- ⊕ 15:00 TT 30.46 [Superconductor-Insulator Transition in thin TiN-films](#) — •KLAUS KRONFELDNER, TATYANA BATURINA, and CHRISTOPH STRUNK
- ⊕ 15:00 TT 30.47 [Large oscillations of the magnetoresistance in nanopatterned thin aluminum films](#) — CHRISTOPHER ESPY, •JULIAN BRAUN, OMRI SHARON, ELKE SCHEER, and YOSEF YESHURUN
- ⊕ 15:00 TT 30.48 [Analytical solutions for the energy and eigenstates of the flux qubit](#) — •IRIS CONRADI, MELANIE HAUCK, ANDREAS HEIMES, MICHAEL MARTHALER, and GERD SCHÖN
- ⊕ 15:00 TT 30.49 [The multidimensional eigenstates of the flux qubit](#) — •MELANIE HAUCK, IRIS CONRADI, ANDREAS HEIMES, MICHAEL MARTHALER, and GERD SCHÖN
- ⊕ 15:00 TT 30.50 [Tunneling and Relaxation of Single Quasiparticles in a Normal-Superconductor-Normal Single Electron Transistor](#) — •ANDREAS HEIMES, VILLE MAISI, DMITRY GOLUBEV, MICHAEL MARTHALER, GERD SCHÖN, and JUKKA PEKOLA
- ⊕ 15:00 TT 30.51 [RF-SQUID mediated coupling between microwave resonators](#) — •FABIAN KOESSEL, FRIEDRICH WULSCHNER, JAN GOETZ, BORJA PEROPADRE, ALEXANDER BAUST, ELISABETH HOFFMANN, DAVID ZUECO, FRANK DEPPE, EDWIN P. MENZEL, ACHIM MARX, JUAN JOSE GARCIA-RIPOLL, and RUDOLF GROSS
- ⊕ 15:00 TT 30.52 [Squeezing physics and path entanglement of continuous-variable propagating microwaves](#) — •E. P. MENZEL, L. ZHONG, R. DI CANDIA, P. EDER, M. IHMIG, A. BAUST, M. HAEBERLEIN, C. SCHNEIDER, K. INOMATA, T. YAMAMOTO, Y. NAKAMURA, E. SOLANO, F. DEPPE, A. MARX, and R. GROSS
- ⊕ 15:00 TT 30.53 [Interference effects in superconducting coplanar waveguide structures](#) — •J. GOETZ, P. SUMMER, H.P. GÜRTNER, M.J. SCHWARZ, P. EDER, F. WULSCHNER, F. DEPPE, A. MARX, and R. GROSS
- ⊕ 15:00 TT 30.54 [Time and Frequency Domain Characterization of the Superconducting Quantum Switch](#) — •A. BAUST, E. HOFFMANN, P. EDER, J. GOETZ, M. HÄBERLEIN, M. FISCHER, M.J. SCHWARZ, F. WULSCHNER, E. XIE, L. ZHONG, H. HUEBL, K. FEDOROV, E.P. MENZEL, F. DEPPE, A. MARX, R. GROSS, E. SOLANO, D. ZUECO, and J.J. GARCIA-RIPOLL
- ⊕ 15:00 TT 30.55 [Controlling the coupling between phosphorus donor spins and a superconducting resonator by light](#) — •KAI MUELLER, CHRISTOPH W. ZOLLITSCH, FELIX HOEHNE, MARTIN S. BRANDT, RUDOLF GROSS, and HANS HUEBL
- ⊕ 15:00 TT 30.56 [Collective Quantum Phase-Slip Dynamics in Superconducting Nanowire Arrays](#) — •SEBASTIAN T. SKACEL, JAN N. VOSS, TOBIAS BIER, LUCAS RADKE, MARTIN WEIDES, HANNES ROTZINGER, HANS E. MOOIJ, and

ALEXEY V. USTINOV

- ⊕ 15:00 TT 30.57 [Towards tunable transmon chains with individual on-chip bias](#) — •PETER FEHLNER, JOCHEN BRAUMÜLLER, LUCAS RADTKE, SASKIA MEIßNER, HANNES ROTZINGER, MARTIN WEIDES, and ALEXEY USTINOV
- ⊕ 15:00 TT 30.58 [Investigation of a tunable transmon qubit in microstrip geometry](#) — •JOCHEN BRAUMÜLLER, LUCAS RADTKE, OLEKSANDR LUKASHENKO, HANNES ROTZINGER, MARTIN WEIDES, and ALEXEY V. USTINOV
- ⊕ 15:00 TT 30.59 [Ultrasonic saturation of tunneling systems in superconducting circuits](#) — •SASKIA MEIßNER, LUCAS RADTKE, JOCHEN BRAUMÜLLER, HANNES ROTZINGER, MARTIN WEIDES, ALEXEY V. USTINOV, and GEORG WEIß
- ⊕ 15:00 TT 30.60 [Probing the Interaction of Individual Two-Level-Systems with Quasiparticles using a Superconducting Qubit](#) — •ALEXANDER BILMES, JÜRGEN LISENFELD, GEORG WEISS, and ALEXEY V. USTINOV
- ⊕ 15:00 TT 30.61 [Low-Vibration Design of a 4 K Pulse Tube Cooler operated on Helium Compressors of Small Input Power](#) — JENS FALTER, BERND SCHMIDT, ANDREAS EULER, MARC DIETRICH, ANDRÉ SCHIRMEISEN, and •GÜNTER THUMMES
- ⊕ 15:00 TT 30.62 [Ultra-thin TaN films on different substrates for superconducting detectors](#) — •ILYA CHARAEV, KONSTANTIN ILIN, and MICHAEL SIEGEL
- ⊕ 15:00 TT 30.63 [Thin NbN film nanowires on GaAs for single-photon detectors](#) — •EKKEHART SCHMIDT, ULRICH RENGSTL, ELISABETH KOROKNAY, KONSTANTIN ILIN, MICHAEL JETTER, PETER MICHLER, and MICHAEL SIEGEL
- ⊕ 15:00 TT 30.64 [High- \$T_c\$ YBCO nanowires for detector applications](#) — •STEFFEN KOCH, JULIANE RAASCH, KONSTANTIN ILIN, BERNHARD HOLZAPFEL, KAZUMASA IIDA, MARC WEBER, and MICHAEL SIEGEL
- ⊕ 15:00 TT 30.65 [Advances in the development of microstructured Magnetic Penetration Thermometers \(MPT\)](#) — •J. GEIST, S. KEMPF, L. GASTALDO, A. FLEISCHMANN, and C. ENSS
- ⊕ 15:00 TT 30.66 [Development of dc-SQUIDs for the readout of metallic magnetic calorimeters](#) — •A. FERRING, S. KEMPF, M. WEGNER, A. FLEISCHMANN, L. GASTALDO, and C. ENSS
- ⊕ 15:00 TT 30.67 [Microfabrication of Metallic Magnetic Calorimeters](#) — C. ENSS, A. FERRING, A. FLEISCHMANN, L. GAMER, L. GASTALDO, J. GEIST, •D. HENGSTLER, S. KEMPF, M. KRANTZ, A. PABINGER, C. PIES, C. SCHÖTZ, V. SCHULTHEIß, and T. WOLF
- ⊕ 15:00 TT 30.68 [Large-area detector for position and energy resolving detection of molecular fragments](#) — •L. GAMER, S. ALLGEIER, D. HENGSTLER, S. KEMPF, C. KRANTZ, O. NOVOTNY, A. PABINGER, C. PIES, A. WOLF, L. GASTALDO, A. FLEISCHMANN, and C. ENSS
- ⊕ 15:00 TT 30.69 [Design of a Large Solid Angle Array of Calorimetric Low Temperature Detectors for Applications in Heavy Ion Research](#) — •PATRICK GRABITZ, ARTUR ECHLER, PETER EGELHOF, and SASKIA KRAFT-BERMUTH
- ⊕ 15:00 TT 30.70 [Schutzdioden für supraleitende Magnete am KATRIN-Experiment](#) — •ALEXANDER JANSEN

Tuesday, April 1, 2014

TT 32: Cryotechnique

(Tuesday) 09:30–09:45, HSZ 201

- ⊕ 09:30 TT 32.1 [Efficient countermeasures against the intrinsic temperature oscillations of low vibration 4 K pulse tube cryo-coolers](#) — •JENS FALTER, BERND SCHMIDT, ANDREAS EULER, MARC DIETRICH, ANDRÉ SCHIRMEISEN, and GÜNTER THUMMES

TT 33: Superconductivity: Vortex Physics

(Tuesday) 09:45–11:00, HSZ 201

- ⊕ 09:45 TT 33.1 [Dynamics of superconductor vortices in finite-thickness Nb open microtubes](#) — •VLADIMIR M. FOMIN, RENAT R. DUSAEV, ROMAN O. REZAEV, and OLIVER G. SCHMIDT
- ⊕ 10:00 TT 33.2 [Neutron scattering studies of domain structures in type-II superconductor Niobium](#) — •TOMMY REIMANN, MICHAEL SCHULZ, SEBASTIAN MÜHLBAUER, CHRISTIAN GRÜNZWEIG, and PETER BÖNI
- ⊕ 10:15 TT 33.3 [Spatial-dependent critical magnetic field for the suppression of superconductivity in a single Pb island with non-uniform thickness](#) — •AUGUSTO LEON VANEGAS, AGNIESZKA STEPNIAK, MICHAEL CAMINALE, HIROFUMI OKA, DIRK SANDER, and JÜRGEN KIRSCHNER
- ⊕ 10:30 TT 33.4 [ac susceptibility investigation of vortex dynamics in nearly-optimally doped Ba\(Fe_{1-x}Co_x\)₂As₂](#) — •GIACOMO PRANDO, ROMAIN GIRAUD, SAICHARAN ASWARTHAM, OLEKSII VAKALIUK, CHRISTIAN HESS, SABINE WURMEHL, ANJA WOLTER-GIRAUD, and BERND BÜCHNER
- ⊕ 10:45 TT 33.5 [Interference of edge and bulk pinning mechanisms in ultra-thin superconducting NbN and TaN mesoscopic bridges](#) — •KONSTANTIN ILIN and MICHAEL SIEGEL

TT 34: Superconductivity: Heterostructures

(Tuesday) 11:15–13:00, HSZ 201

- ⊕ 11:15 TT 34.1 Hauptvortrag: [Giant Thermopower in the Emerging Field of Super-Spintronics](#) — •MATTHIAS ESCHRIG
- ⊕ 11:45 TT 34.2 [Giant thermoelectric effects in proximity-coupled superconductor-ferromagnet devices](#) — •PETER MACHON, MATTHIAS ESCHRIG, and WOLFGANG BELZIG

- ⊕ 12:00 TT 34.3 [Features and functionalities of superconducting hybrids with mixed singlet and triplet states](#) — •PABLO BURSET, FELIX KEIDEL, YUKIO TANAKA, NAOTO NAGAOSA, and BJÖRN TRAUZETTEL
- ⊕ 12:15 TT 34.4 [Proximity effect in superconductor/conical magnet/ferromag-net heterostructures](#) — •DANIEL FRITSCH and JAMES F. ANNETT
- ⊕ 12:30 TT 34.5 [Multiply gapped density of states in a chaotic normal metal in contact with superconductors](#) — •JOHANNES REUTLINGER, WOLFGANG BELZIG, YULI NAZAROV, and LEONID GLAZMAN
- ⊕ 12:45 TT 34.6 [Measuring local magnetic fields in superconductors via XMCD](#) — •CLAUDIA STAHL, STEPHEN RUOß, PATRICK AUDEHM, MARKUS WEIGAND, GISELA SCHÜTZ, and JOACHIM ALBRECHT

TT 45: Superconductivity: Fe-based Superconductors - 1111,111, FeSe

(Tuesday)14:00–16:00, HSZ 201

Auswahlstatus für diese Sitzung:

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- ⊕ 14:00 TT 45.1 [In-plane vs. out-of-plane doping and disorder in CeFeAsO](#) — •OLEKSII VAKALIUK, GIACOMO PRANDO, SABINE WURMEHL, CHRISTIAN HESS, and BERND BUECHNER
- ⊕ 14:15 TT 45.2 [Effects of hydrostatic pressure on the superconducting properties of LaFeAsO_{1-x}F_x](#) — •GIACOMO PRANDO, WOLF SCHOTTENHAMEL, SAMUELE SANNA, RUSTEM KHASANOV, ZURAB GUGUCHIA, ANJA WOLTER-GIRAUD, SABINE WURMEHL, and BERND BÜCHNER
- ⊕ 14:30 TT 45.3 [Microscopic insight into the poisoning effect of Mn in LaFe_{1-x}Mn_xAsO_{0.89}F_{0.11}](#) — •FRANZISKA HAMMERATH, PIETRO BONFÁ, SAMUELE SANNA, GIACOMO PRANDO, ROBERTO DE RENZI, PIETRO CARRETTA, YOSHIAKI KOBAYASHI, and MASATOSHI SATO
- ⊕ 14:45 TT 45.4 [Magnetic Vortices in LiFeAs as seen by Scanning Tunneling Spectroscopy](#) — RONNY SCHLEGEL, PRANAB KUMAR NAG, DANNY BAUMANN, ROBERT BECK, SABINE WURMEHL, BERND BÜCHNER, and •CHRISTIAN HESS
- ⊕ 15:00 TT 45.5 [Incommensurate antiferromagnetic fluctuations in superconducting LiFeAs](#) — •NAVID QURESHI, PAUL STEFFENS, DANIEL LAMAGO, YVAN SIDIS, OLEG SOBOLEV, RUSSELL EWINGS, LUMINITA HARNAGEA, SABINE WURMEHL, BERND BÜCHNER, and MARKUS BRADEN
- ⊕ 15:15 TT 45.6 [Phase diagram characterization of NaFe_{1-x}Rh_xAs by electrical transport](#) — •FRANK STECKEL, ROBERT BECK, DIRK BOMBOR, MARIA ROSLOVA, IGOR MOROZOV, SABINE WURMEHL, BERND BÜCHNER, and CHRISTIAN HESS
- ⊕ 15:30 TT 45.7 [Magnetoresistance and Hall effect of Fe_{1.01}Se](#) — •SAHANA ROESSLER, CEVRIYE KOZ, ULRICH SCHWARZ, and STEFFEN WIRTH
- ⊕ 15:45 TT 45.8 [Orbital-selective metal-insulator transition and gap formation above T_c in](#)

[superconducting \$\text{Rb}_{1-x}\text{Fe}_{2-y}\text{Se}_2\$](#) — •ZHE WANG, MICHAEL SCHMIDT, JONAS FISCHER, VLADIMIR TSURKAN, MARKUS GREGER, DIETER VOLLHARDT, ALOIS LOIDL, and JOACHIM DEISENHOFER

Wednesday, April 2, 2014

TT 53: Superconductivity: Fe-based Superconductors – 122

(Wednesday) 09:30–13:15, HSZ 201

- ⊕ 09:30 TT 53.1 [The Pauli-limited multiband superconductor \$\text{RbFe}_2\text{As}_2\$](#) — •FELIX EILERS, DIEGO A. ZOCCO, THOMAS WOLF, PETER SCHWEISS, KAI GRUBE, and HILBERT V. LÖHNEYSSEN
- ⊕ 09:45 TT 53.2 [Single 20-meV boson mode in \$\text{KFe}_2\text{As}_2\$ as seen by point-contact spectroscopy](#) — Y. NAIDYUK, O.E. KVITNITSKAYA, N.V. GAMAYUNOVA, L. BOERI, S. ASWARTHAM, G. FUCHS, S. WURMEHL, •D.V. EFREMOV, and S.-L. DRECHSLER
- ⊕ 10:00 TT 53.3 [Superconducting specific heat jump \$\Delta C \propto T_c^\beta\$ \(\$\beta \sim 2\$ \) and gapless Fermi surfaces in \$\text{K}_{1-x}\text{Na}_x\text{Fe}_2\text{As}_2\$](#) — •V. GRINENKO, D.V. EFREMOV, S.-L. DRECHSLER, S. ASWARTHAM, D. GRUNER, M. ROSLOVA, I. MOROZOV, K. NENKOV, S. WURMEHL, A.U.B. WOLTER, B. HOLZAPFEL, and B. BÜCHNER
- ⊕ 10:15 TT 53.4 [Coupled order parameters in \$\text{Ca}_{1-x}\text{Na}_x\text{Fe}_2\text{As}_2\$](#) — •PHILIPP MATERNE, SIRKO BUBEL, HEMKE MAETER, RAJIB SARKAR, JOHANNES SPEHLING, LUMINITA HARNAGEA, SABINE WURMEHL, BERND BUECHNER, HUBERTUS LUETKENS, and HANS-HENNING KLAUSS
- ⊕ 10:30 TT 53.5 [Specific heat of \$\text{Ca}_{0.32}\text{Na}_{0.68}\text{Fe}_2\text{As}_2\$ single crystals: unconventional \$s_\pm\$ multi-band superconductivity with intermediate repulsive interband coupling and sizable attractive intraband couplings](#) — •S.-L. DRECHSLER, S. JOHNSTON, H. ROSNER, M. ABDEL-HAFIEZ, V. GRINENKO, L. HARNAGEA, Y. KRUPSKAYA, D. BOMBOR, S. WURMEHL, C. HESS, A. WOLTER, and B. BUECHNER
- ⊕ 10:45 TT 53.6 [ARPES of iron-based superconductors: from low- to high-energy edge of 3d band](#) — •DANIIL EVTUSHINSKY, VOLODYMYR ZABOLOTNYY, JANEK MALETZ, BERND BÜCHNER, and SERGEI BORISENKO
- ⊕ 11:00 TT 53.7 [Electronic structure and quantum criticality in \$\text{Ba}\(\text{Fe}_{1-x-y}\text{Co}_x\text{Mn}_y\)_2\text{As}_2\$, an ARPES study.](#) — •J. FINK, E.D.L. RIENKS, T. WOLF, K. KOEPERNIK, I. AVIGO, P. HLAWENKA, C. LUPULESCU, T. ARION, F. ROTH, W. EBERHARDT, and U. BOVENSIEPEN
- 11:15 15 min. break.
- ⊕ 11:30 TT 53.8 [Spin Fluctuations in doped Ba122 probed by NMR Spin Lattice Relaxation Rate](#) — •UWE GRÄFE, HANNES KÜHNE, SAICHARAN ASWARTHAM, PHILIP KUHN, ARNEIL REYES, SABINE WURMEHL, BERND BÜCHNER, and HANS-JOACHIM GRAFE

- ⊕ 11:45 TT 53.9 — [Effects of transition metal doping on the electronic structure of BaFe₂As₂](#) — •JAN TRINCKAUF, KLAUS KOEPERNIK, SAI ASWARTHAM, VLADIMIR STROCOV, SABINE WURMEHL, BERND BÜCHNER, and JOCHEN GECK
- ⊕ 12:00 TT 53.10 [Analysis of the sub-dominant *d*-wave pairing channel in iron-based superconductors](#) — •THOMAS BÖHM, FLORIAN KRETZSCHMAR, RUDI HACKL, THOMAS P. DEVEREAUX, and ALEXANDER F. KEMPER
- ⊕ 12:15 TT 53.11 [Raman study of SDW order and band-folding in twin-free BaFe₂As₂](#) — •FLORIAN KRETZSCHMAR, THOMAS BÖHM, BERNHARD MUSCHLER, ANDREAS BAUM, RUDI HACKL, ALEXANDER F. KEMPER, THOMAS P. DEVEREAUX, JAMES G. ANALYTIS, JIUN-HAW CHU, and IAN R. FISHER
- ⊕ 12:30 TT 53.12 [Tracing the *s*_± symmetry in iron pnictides](#) — •MICHA SCHILLING, SINA ZAPF, BORIS GORSHUNOV, ANDREAS BAUMGARTNER, KAZUMASA IIDA, VALERY A. DRAVIN, KIRILL V. MITSSEN, DIMITRI EFREMOV, OLEG DOLGOV, and MARTIN DRESSEL
- ⊕ 12:45 TT 53.13 [Measuring detwinned EuFe₂As₂ without external pressure](#) — •JANNIS MAIWALD, CHRISTIAN STINGL, SINA ZAPF, SHUAI JIANG, NORA BACH, KIRK POST, HIRALE S. JEEVAN, DAVID NEUBAUER, ANJA LÖHLE, CONRAD CLAUSS, DIMITRI BASOV, MARTIN DRESSEL, and PHILIPP GEGENWART
- ⊕ 13:00 TT 53.14 [Permanent Detwinning of EuFe₂As₂ by indirect magnetoelastic coupling](#) — •SINA ZAPF, CHRISTIAN STINGL, KIRK POST, JANNIS MAIWALD, SHUAI JIANG, HIRALE S. JEEVAN, NORA BACH, DAVID NEUBAUER, ANJA LÖHLE, CONRAD CLAUSS, DIMITRI N. BASOV, PHILIPP GEGENWART, and MARTIN DRESSEL

TT 68: Superconductivity: Fe-based Superconductors - Theory I

(Wednesday) 15:00–18:00, HSZ 201

Auswahlstatus für diese Sitzung:

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- ⊕ 15:00 TT 68.1 Hauptvortrag: [Novel Effects of Disorder in Multiband Unconventional Superconductors](#) — •PETER J HIRSCHFELD
- ⊕ 15:30 TT 68.2 [Suppression of *T_c* due to impurity scattering with a phase](#) — •MAREIKE HOYER, SERGEY SYZРАНOV, and JÖRG SCHMALIAN
- ⊕ 15:45 TT 68.3 [Electronic and Magnetic Properties of Ba\(Fe_{1-x}Co_x\)₂As₂](#) — •GERALD DERONDEAU, SERGIY MANKOVSKY, HUBERT EBERT, and JÁN MINÁR
- ⊕ 16:00 TT 68.4 [Electronic structure modification and ultrafast SDW generation due to coherent oscillation of the A_{1g} phonon mode in BaFe₂As₂](#) — •BHASKAR KAMBLE and ILYA EREMIN
- ⊕ 16:15 TT 68.5 [LDA+DMFT study of the iron-pnictide superconductor KFe₂As₂](#) — •STEFFEN BACKES, DANIEL GUTERDING, HARALD JESCHKE, and ROSER VALENTI

- 16:30 15 min. break.
- ⊕ 16:45 TT 68.6 [de Haas-van Alphen effect and effective masses in \$\text{KFe}_2\text{As}_2\$ from LDA+DMFT](#) — •DANIEL GUTERDING, STEFFEN BACKES, HARALD O. JESCHKE, and ROSER VALENTI
- ⊕ 17:00 TT 68.7 [Wannier orbitals via the projector method for LAPW and effects of correlation in the \(collapsed\) tetragonal phases of \$\text{CaFe}_2\text{As}_2\$](#) — •JEAN DIEHL and ROSER VALENTI
- ⊕ 17:15 TT 68.8 [Using Space Group Representations to Unfold the Bandstructures of Iron Pnictides](#) — •MILAN TOMIC, ROSER VALENTI, and HARALD JESCHKE
- ⊕ 17:30 TT 68.9 [Topological Surface States in Paramagnetic, Antiferromagnetic, and Superconducting Iron Pnictides](#) — •ALEXANDER LAU
- ⊕ 17:45 TT 68.10 [Negative transport times in Fe-based superconductors](#) — •MAXIM BREITKREIZ, PHILIP M. R. BRYDON, and CARSTEN TIMM

TT 71: Transport: Majorana Fermions (organized by TT)

(Wednesday) 15:00–18:00, HSZ 03

Auswahlstatus für diese Sitzung:

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- ⊕ 15:00 TT 71.1 [Majorana spin liquid and dimensional reduction in \$\text{Cs}_2\text{CuCl}_4\$](#) — •TIM HERFURTH, SIMON STREIB, and PETER KOPIETZ
- ⊕ 15:15 TT 71.2 [Supersymmetry in the Majorana Cooper pair box](#) — •JASCHA ULRICH and FABIAN HASSLER
- ⊕ 15:30 TT 71.3 [Robustness of exchange protocols of Majorana fermions in quantum wire networks](#) — •ROLF W. REINTHALER, CHAO LEI, ALLAN H. MACDONALD, and EWELINA M. HANKIEWICZ
- ⊕ 15:45 TT 71.4 [Absence of Aharonov-Bohm effect of chiral Majorana fermion edge states](#) — •SUNGHUN PARK, JOEL MOORE, and HEUNG-SUN SIM
- ⊕ 16:00 TT 71.5 [Fractional Josephson effect in a quadruple quantum dot](#) — •BJÖRN SOTHMANN, JIAN LI, and MARKUS BÜTTIKER
- 16:15 15 min. break.
- ⊕ 16:30 TT 71.6 Hauptvortrag: [Majorana Fermions in Chains of Magnetic Atoms on the Surface of a Superconductor](#) — •ALI YAZDANI
- ⊕ 17:00 TT 71.7 [Disordered one-dimensional topological superconductors](#) — •MICHAEL WIMMER, INANC ADAGIDELI, and AYKUT TEKER
- ⊕ 17:15 TT 71.8 [Majorana Fermions in Antiferromagnetically doped Superconductors](#) — •ANDREAS HEIMES, PANAGIOTIS KOTETES, and GERD SCHÖN
- ⊕ 17:30 TT 71.9 [Majorana fermions in quasi-1d Rashba semiconductor/superconductor heterostructures without the requirement of a Zeeman field](#) — •PANAGIOTIS KOTETES, ALEXANDER SHNIRMAN, and GERD SCHÖN

- ⊕ 17:45 TT 71.10 [Quantum spin liquid with a Majorana Fermi surface on the three-dimensional hyperoctagon lattice](#) — •MARIA HERMANN and SIMON TREBST

Thursday, March 31, 2014

TT 81: Superconductivity: Properties and Electronic Structure

(Thursday) 09:30–13:15, HSZ 201

- ⊕ 09:30 TT 81.1 [Growth of superconducting \$\text{LaPd}_{1-x}\text{Bi}_2\$ thin films by molecular beam epitaxy](#) — •REINER RETZLAFF, NIKLAS VAN ELTEN, JOSE KURIAN, and LAMBERT ALFF
- ⊕ 09:45 TT 81.2 [Strain homogeneity in uniaxial stress and strain measurements](#) — •MARK E. BARBER, CLIFORD W. HICKS, STEPHEN D. EDKINS, DANIEL O. BRODSKY, and ANDREW P. MACKENZIE
- ⊕ 10:00 TT 81.3 [Large enhancement of the \$T_c\$ of \$\text{Sr}_2\text{RuO}_4\$ under uni-axial strain](#) — •DANIEL O. BRODSKY, CLIFFORD W. HICKS, EDWARD A. YELLAND, ALEXANDRA S. GIBBS, JAN A. N. BRUIN, MARK E. BARBER, STEPHEN D. EDKINS, KEIGO NISHIMURA, SHINGO YONEZAWA, YOSHITERU MAENO, and ANDREW P. MACKENZIE
- ⊕ 10:15 TT 81.4 [The high-energy anomaly in ARPES spectra of cuprates—many body or matrix element effect?](#) — •J. FINK, E.D.L. RIENKS, M. ÄRRÄLÄ, M. LINDROOS, F. ROTH, W. TABIS, G. YU, and M. GREVEN
- ⊕ 10:30 TT 81.5 [Following doped charges in cuprate superconductors by \$^{17}\text{O}\$ and \$^{63}\text{Cu}\$ NMR](#) — •MICHAEL JURKUTAT, DAMIAN RYBICKI, GRANT WILLIAMS, ANDREAS ERB, and JÜRGEN HAASE
- ⊕ 10:45 TT 81.6 [Spin excitations of ferronematic order in underdoped cuprate superconductors](#) — •GÖTZ SEIBOLD, CARLO DI CASTRO, MARCO GRILLI, and JOSE LORENZANA
- ⊕ 11:00 TT 81.7 [Tuning the performance of \$\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}\$ thin films by a local incorporation of gold nanoparticles](#) — •CHRISTIAN KATZER, MARKUS WESTERHAUSEN, CLAUDIA STAHL, JOACHIM ALBRECHT, EVELYN STILP, ANDREAS SUTER, and FRANK SCHMIDL
- 11:15 15 min. break.
- ⊕ 11:30 TT 81.8 [Electrospun superconducting \$\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4\$ nanowires and nanoribbons](#) — •XIANLIN ZENG, MICHAEL R. KOBLISCHKA, JENNIFER S. ATCHINSON, VOLKER PRESSER, and UWE HARTMANN
- ⊕ 11:45 TT 81.9 [Magnetic characterization of bulk \$\text{MgB}_2\$](#) — ALEX WIEDERHOLD, •MICHAEL R. KOBLISCHKA, MIRYALA MURALIDHAR, MASATO MURAKAMI, THOMAS HAUET, and UWE HARTMANN
- ⊕ 12:00 TT 81.10 [Effect of Coulomb Interactions on the Disorder-Driven Superconductor-](#)

- [Insulator Transition](#) — DANIEL SHERMAN, UWE S. PRACHT, BORIS GORSHUNOV, SHACHAF PORAN, NANDINI TRIVEDI, PRATAP RAYCHAUDHURI, AVIAD FRYDMAN, and •MARTIN DRESSEL
- ⊕ 12:15 TT 81.11 [Superconducting gap of the noncentrosymmetric superconductor \$\alpha\$ -BiPd](#) — •ZHIXIANG SUN, MOSTAFA ENAYAT, DARREN PEETS, ANA MALDONADO, ANDREAS P. SCHNYDER, ALEXANDER YARESKO, and PETER WAHL
- ⊕ 12:30 TT 81.12 [Suppression of superconductivity in a single layer of Pb on Si\(111\) by insertion of a single layer of Ag](#) — •HIROFUMI OKA, AUGUSTO A. LEON VANEGAS, AGNIESZKA STEPNIAK, MICHAEL CAMINALE, DIRK SANDER, and JÜRGEN KIRSCHNER
- ⊕ 12:45 TT 81.13 [Position-dependent tunneling spectroscopy from a superconducting Pb island towards a normal conducting single layer](#) — •AGNIESZKA STEPNIAK, AUGUSTO A. LEON VANEGAS, MICHAEL CAMINALE, HIROFUMI OKA, DIRK SANDER, and JÜRGEN KIRSCHNER
- ⊕ 13:00 TT 81.14 [Search for superconductivity in differently treated graphite powders](#) — •PABLO ESQUINAZI, ANNETTE SETZER, JOSE CARLOS DE MORAES SILVA, and WINFRIED BÖHLMANN

TT 92: Superconductivity: Fe-based Superconductors - Theory II

(Thursday) 15:00–16:15, HSZ 201

- ⊕ 15:00 TT 92.1 [Superconducting gap in LiFeAs from three-dimensional spin-fluctuation pairing calculations](#) — •YAN WANG, ANDREAS KREISEL, VOLODYMYR B. ZABOLOTNYI, SERGEY V. BORISENKO, BERND BÜCHNER, PETER J. HIRSCHFELD, THOMAS A. MAIER, and DOUGLAS J. SCALAPINO
- ⊕ 15:15 TT 92.2 [Superconductivity from repulsion in LiFeAs: novel *s*-wave symmetry and potential time-reversal symmetry breaking](#) — •FELIX AHN, ILYA EREMIN, JOHANNES KNOLLE, VOLODYMYR ZABOLOTNYI, SERGEY BORISENKO, BERND BÜCHNER, and ANDREY CHUBUKOV
- ⊕ 15:30 TT 92.3 [BaFe₂P₂ and LaFe₂P₂: What makes the difference?](#) — •TOBIAS FÖRSTER, HELGE ROSNER, ANDREY POLYAKOV, MAREK BARTKOWIAK, ANDREA D. BIANCHI, and JOCHEN WOSNITZA
- ⊕ 15:45 TT 92.4 [Is LiFeO₂Fe₂Se₂ a typical iron-based superconductor?](#) — •CHRISTOPH HEIL, LILIA BOERI, MARKUS AICHHORN, HEINRICH SORMANN, and WOLFGANG VON DER LINDEN
- ⊕ 16:00 TT 92.5 [Spin fluctuations and superconductivity in K_xFe_{2-y}Se₂](#) — •ANDREAS KREISEL, YAN WANG, THOMAS A. MAIER, PETER J. HIRSCHFELD, and DOUGLAS J. SCALAPINO

TT 93: Superconductivity: (General) Theory

(Thursday) 16:30–18:00, HSZ 201

- ⊕ 16:30 TT 93.1 [Symmetry-protected topological invariant and Majorana impurity states in time-reversal invariant superconductors](#) — •LUKAS KIMME, TIMO HYART, and BERND ROSENOW
- ⊕ 16:45 TT 93.2 [Flat bands at surfaces of nodal topological superconductors: Spin polarization and charge currents](#) — •CARSTEN TIMM, PHILIP M. R. BRYDON, and ANDREAS P. SCHNYDER
- ⊕ 17:00 TT 93.3 [Plasmons, gauge invariance and mass in non-centrosymmetric superconductors](#) — •NIKOLAJ BITTNER, DIETRICH EINZEL, LUDWIG KLAM, and DIRK MANSKE
- ⊕ 17:15 TT 93.4 [Phonon-mediated pairing in the new superconductor Ta₂PdS₅: A first principles study](#) — •ROLF HEID and KLAUS-PETER BOHNEN
- ⊕ 17:30 TT 93.5 [Electron-phonon coupling of light-actinides: effect of spin-orbit coupling](#) — PAOLA GONZÁLEZ-CASTELAZO, •OMAR DE LA PEÑA-SEAMAN, ROLF HEID, and KLAUS-PETER BOHNEN
- ⊕ 17:45 TT 93.6 [Electromagnetic response of strongly disordered superconductors](#) — •GÖTZ SEIBOLD, LARA BENFATTO, CLAUDIO CASTELLANI, and JOSE LORENZANA