8 Lists

8.5 Publications over the last period

The following lists cover the period from April 1st, 2008 to March 31st, 2009:

1. Scientific articles in journals with peer review
2. Scientific articles in journals without peer review
3. Publications from lists 1 and 2 involving several groups

The fist two lists are sorted by the name of the group leaders. The most important publications are outlined by a red mark.

8.5.1 Scientific articles in journals with peer review

Group of Ph. Aebi

▶ C. Battaglia, K. Gaál-Nagy, C. Monney, C. Didiot, E. F. Schwier, M. G. Garnier, G. Onida, and P. Aebi
New Structural Model for the Si(331)-(12 x 1) Surface Reconstruction
Physical Review Letters **102**, 066102 (2009).
Group: Aebi / Project: 1

C. Battaglia, K. Gaál-Nagy, C. Didiot, C. Monney, E. F. Schwier, M. G. Garnier, G. Onida, and A. P.
Elementary structural building blocks encountered in silicon surface reconstructions
Journal of Physics: Condensed Matter **21**, 013001 (2009).
Group: Aebi / Project: 1

▶ C. Monney, H. Cercellier, F. Clerc, C. Battaglia, E. F. Schwier, C. Didiot, M. G. Garnier, H. Beck, P. Aebi, H. Berger, L. Forró, and L. Patthey
Spontaneous exciton condensation in $1T-TiSe_2$: BCS-like approach
Physical Review B **79**, 045116 (2009).
Groups: Margaritondo, Aebi, Forró / Projects: 1, 3

C. Battaglia, P. Aebi, and S. C. Erwin
Stability and structure of atomic chains on Si(111)
Physical Review B **78**, 075409 (2008).
Group: Aebi / Project: 1

C. Battaglia, H. Cercellier, C. Monney, M. G. Garnier, L. Despont, and P. Aebi
Unveiling new systematics in the self-assembly of atomic chains on Si(111)
Journal of Physics: Conference Series **100**, 052078 (2008).
Group: Aebi / Project: 1

Group of D. Baeriswyl

▶ D. Eichenberger and D. Baeriswyl
Superconductivity in the 2D Hubbard model: Electron doping is different
to be published in Physical Review B (2009), arXiv:0808.0433.
Group: Baeriswyl / Project: 2

Group of Ch. Bernhard

▶ A. J. Drew, J. Hoppler, L. Schulz, F. L. Pratt, P. Desai, P. Shakya, T. Kreouzis, W. P. Gillin, A. Suter, N. A. Morley, V. K. Malik, A. Dubroka, K. W. Kim, H. Bouyanfif, F. Bourqui, C. Bernhard, R. Scheuermann, G. J. Nieuwenhuys, T. Prokscha, and E. Morenzoni

Direct measurement of the electronic spin diffusion length in a fully functional organic spin valve by low-energy muon spin rotation

Nature Materials **8**, 109 (2009).

Groups: Bernhard, Keller / Project: 2

- J. Hoppler, J. Stahn, C. Niedermayer, V. K. Malik, H. Bouyanfif, A. J. Drew, M. Rössle, A. Buzdin, G. Cristiani, H.-U. Habermeier, B. Keimer, and C. Bernhard
  Giant superconductivity-induced modulation of the ferromagnetic magnetization in a cuprate-manganite superlattice
  Nature Materials (2009), doi: 10.1038/nmat2383.
  Group: Bernhard / Project: 2

C. Bernhard, L. Yu, A. Dubroka, K. W. Kim, M. Rössle, D. Munzar, J. Chaloupka, C. T. Lin, and T. Wolf
Broad-band infrared ellipsometry measurements of the c-axis response of underdoped $YBa_2Cu_3O_{7-\delta}$: Spectroscopic distinction between the normal state pseudogap and the superconducting gap

Journal of the Physics and Chemistry of Solids **69**, 3064 (2008).

Group: Bernhard / Project: 2

- A. J. Drew, F. L. Pratt, J. Hoppler, L. Schulz, V. Malik-Kumar, N. A. Morley, P. Desai, P. Shakya, T. Kreouzis, W. P. Gillin, K. W. Kim, A. Dubroka, and R. Scheuermann
  Intrinsic Mobility Limit for Anisotropic Electron Transport in Alq_3
  Physical Review Letters **100**, 116601 (2008).
  Group: Bernhard / Project: 2

- A. J. Drew, F. L. Pratt, T. Lancaster, S. J. Blundell, P. J. Baker, R. H. Liu, G. Wu, X. H. Chen, I. Watanabe, V. K. Malik, A. Dubroka, K. W. Kim, M. Rössle, and C. Bernhard
  Coexistence of Magnetic Fluctuations and Superconductivity in the Pnictide High Temperature Superconductor $SmFeAsO_{1-x}F_x$ Measured by Muon Spin Rotation
  Physical Review Letters **101**, 097010 (2008).
  Group: Bernhard / Project: 2

- A. Dubroka, K. W. Kim, M. Rössle, V. K. Malik, A. J. Drew, R. H. Liu, G. Wu, X. H. Chen, and C. Bernhard
  Superconducting Energy Gap and c-Axis Plasma Frequency of (Nd,Sm) FeAs $O_{0.82}F_{0.18}$ Superconductors from Infrared Ellipsometry
  Physical Review Letters **101**, 097011 (2008).
  Group: Bernhard / Project: 2

- V. Hinkov, D. Haug, B. Fraunqué, P. Bourges, Y. Sidis, A. Ivanov, C. Bernhard, L. C. T., and B. Keimer
  Electronic Liquid Crystal State in the High Temperature Superconductor $YBa_2Cu_3O_{6.45}$
  Science **319**, 597 (2008).
  Group: Bernhard / Project: 2

- J. Hoppler, J. Stahn, H. Bouyanfif, V. K. Malik, B. D. Patterson, P. R. Willmot, G. Cristiani, H. U. Habermeier, and C. Bernhard
  X-ray study of structural domains in the near surface region of $SrTiO_3$ substrates with $Y_{0.6}Pr_{0.4}Ba_2Cu_3O_7/La_{2/3}Ca_{1/3}MnO_3$ superlattices grown on top
  Physical Review B **78**, 134111 (2008).
  Group: Bernhard / Project: 2

- K. W. Kim, G. D. Gu, C. C. Homes, and T. W. Noh
  Bound Excitons in Sr_2CuO_3
  Physical Review Letters **101**, 177404 (2008).
  Group: Bernhard / Project: 2

- A. S. Mishchenko, N. Nagaosa, Z.-X. Shen, G. De Filippis, V. Cataudella, T. P. Devereaux, C. Bernhard, K. W. Kim, and J. Zaanen
  Charge Dynamics of Doped Holes in High T_c Cuprate Superconductors: A Clue from Optical Conductivity
  Physical Review Letters **100**, 166401 (2008).
  Group: Bernhard / Project: 2

- S. J. Moon, H. Jin, K. W. Kim, W. S. Choi, Y. S. Lee, J. Yu, G. Cao, A. Sumi, H. Funakubo, C. Bernhard, and T. W. Noh
  Dimensionality-Controlled Insulator-Metal Transition and Correlated Metallic State in 5d Transition Metal Oxides $Sr_{n+1}Ir_nO_{3n+1}$ (n=1, 2, and inf*)*
  Physical Review Letters **101**, 226402 (2008).
  Group: Bernhard / Project: 2

- L. Yu, D. Munzar, A. V. Boris, P. Yordanov, J. Chaloupka, T. Wolf, C. T. Lin, B. Keimer, and C. Bernhard
  Evidence for Two Separate Energy Gaps in Underdoped High-Temperature Cuprate Superconductors from Broadband Infrared Ellipsometry
  Physical Review Letters **100**, 177004 (2008).
  Group: Bernhard / Project: 2

Group of G. Blatter

- F. Hassler and S. D. Huber
  Coherent pumping of a Mott insulator: Fermi golden rule versus Rabi oscillations

Physical Review A **79**, 021607 (2009).
Group: Blatter / Project: 1

- S. D. Huber and A. Rüegg
  Dynamically Generated Double Occupancy as a Probe of Cold Atom Systems
  Physical Review Letters **102**, 065301 (2009).
  Group: Blatter / Project: 1

A. F. Albuquerque, H. G. Katzgraber, M. Troyer, and J. Blatter
Engineering exotic phases for topologically-protected quantum computation by emulating quantum dimer models
Physical Review B **78**, 014503 (2008).
Groups: Troyer, Blatter / Project: 1

- V. Dotsenko, L. B. Ioffe, V. B. Geshkenbein, S. E. Korshunov, and G. Blatter
  Joint Free-Energy Distribution in the Random Directed Polymer Problem
  Physical Review Letters **100**, 050601 (2008).
  Group: Blatter / Project: 1

- A. U. Thomann, V. B. Geshkenbein, and G. Blatter
  The dynamically asymmetric SQUID: Münchhausen effect
  Physica C **468**, 705 (2008).
  Group: Blatter / Project: 2

Group of M. Büttiker

- H. Förster and M. Büttiker
  Fluctuation Relations Without Microreversibility in Nonlinear Transport
  Physical Review Letters **101**, 136805 (2008).
  Group: Büttiker / Project: 1

- M. Moskalets, P. Samuelsson, and M. Büttiker
  Quantized Dynamics of a Coherent Capacitor
  Physical Review Letters **100**, 086601 (2008).
  Group: Büttiker / Project: 1

S. E. Nigg and M. Büttiker
Quantum to Classical Transition of the Charge Relaxation Resistance of a Mesoscopic Capacitor
Physical Review B **77**, 085312 (2008).
Group: Büttiker / Project: 1

- S. Ol'khovskaya, J. Splettstoesser, M. Moskalets, and M. Büttiker
  Shot Noise of a Mesoscopic Two-Particle Collider
  Physical Review Letters **101**, 166802 (2008).
  Group: Büttiker / Project: 1

- J. Splettstoesser, S. Ol'khovskaya, M. Moskalets, and M. Büttiker
  Electron counting with a two-particle emitter
  Physical Review B **78**, 205110 (2008).
  Group: Büttiker / Project: 1

Group of L. Degiorgi

- M. Lavagnini, M. Baldini, A. Sacchetti, D. Di Castro, B. Delley, R. Monnier, J. H. Chu, N. Ru, I. R. Fisher, P. Postorino, and L. Degiorgi
  Evidence for coupling between charge density waves and phonons in two-dimensional rare-earth tritellurides
  Physical Review B **78**, 201101(R) (2008).
  Group: Degiorgi / Project: 1

M. Lavagnini, A. Sacchetti, L. Degiorgi, E. Arcangeletti, L. Baldassarre, P. Postorino, S. Lupi, A. Perucchi, K. Shin, and I. R. Fisher
Pressure dependence of the optical properties of the charge-density-wave compound $LaTe_2$
Physical Review B **77**, 165132 (2008).
Group: Degiorgi / Project: 1

F. Pfuner, L. Degiorgi, K. Y. Shin, and I. R. Fisher
Optical properties of the charge-density-wave polychalcogenide compounds R_2Te_5 (R = Nd, Sm and Gd)
The European Physical Journal B **63**, 11 (2008).
Group: Degiorgi / Project: 1

Group of Ø. Fischer

- L. Antognazza, M. Therasse, M. Decroux, F. Roy, B. Dutoit, M. Abplanalp, and Ø. Fischer
  Comparison between the behavior of HTS thin film grown on sapphire and coated conductors for fault current limiter applications
  to be published in IEEE Transactions on Applied Superconductivity (2009).
  Groups: Fischer, Abplanalp, Hasler / Project: 6

J. Karpinski, N. D. Zhigadlo, S. Katrych, Z. Bukowski, P. Moll, S. Weyeneth, H. Keller, R. Puzniak, M. Tortello, D. Daghero, R. Gonnelli, I. Maggio-Aprile, Y. Fasano, Ø. Fischer, and B. Batlogg
Single crystals of $LnFeAsO_{1-x}F_x$ (Ln=La, Pr, Nd, Sm, Gd) and $Ba_{1-x}Rb_xFe_2As_2$: growth, structure and superconducting properties
Physica C (2009), doi:

10.1016/j.physc.2009.03.048.
Groups: Karpinski, Keller, Fischer / Projects: 2, 3, 4

F. Roy, M. Therasse, B. Dutoit, F. Sirois, L. Antognazza, and M. Decroux
Numerical studies of the quench propagation in coated conductors for fault current limiters
to be published in IEEE Transactions on Applied Superconductivity (2009).
Groups: Fischer, Hasler / Project: 6

R. T. Thew, N. Curtz, P. Eraerds, N. Walenta, J.-D. Gautier, E. Koller, J. Zhang, N. Gisin, and H. Zbinden
Approaches to Single Photon Detection
Nuclear Instruments and Methods in Physics Research A (2009).
Group: Fischer / Project: 5

B. M. Wojek, E. Morenzoni, D. G. Eshchenko, A. Suter, T. Prokscha, E. Koller, E. Treboux, Ø. Fischer, and H. Keller
Magnetism and superconductivity in cuprate heterostructures studied by low energy μSR
Physica B (2009), doi: 10.1016/j.physb.2008.11.189.
Groups: Fischer, Keller / Projects: 2, 5

► C. Dubois, G. Santi, I. Cuttat, C. Berthod, N. Jenkins, A. P. Petrović, A. A. Manuel, Ø. Fischer, S. M. Kazakov, Z. Bukowski, and J. Karpinski
Scanning Tunneling Spectroscopy in the Superconducting State and Vortex Cores of the β-pyrochlore KOs_2O_6
Physical Review Letters **101**, 057004 (2008).
Groups: Giamarchi, Fischer, Karpinski / Projects: 2, 3, 4

► P. Legendre, Y. Fasano, I. Maggio-Aprile, Ø. Fischer, Z. Bukowski, S. Katrych, and J. Karpinski
Unexpectedly wide reversible vortex region in β-pyrochlore $RbOs_2O_6$: Bulk magnetization measurements
Physical Review B **78**, 144513 (2008).
Groups: Fischer, Karpinski / Projects: 2, 3, 4

► G. Levy de Castro, C. Berthod, A. Piriou, E. Giannini, and Ø. Fischer
Preeminent Role of the Van Hove Singularity in the Strong-Coupling Analysis of Scanning Tunneling Spectroscopy for Two-Dimensional Cuprates Superconductors
Physical Review Letters **101**, 267004 (2008).
Groups: Giamarchi, Fischer, van der Marel / Project: 2

A. Piriou, Y. Fasano, E. Giannini, and Ø. Fischer
Effect of oxygen-doping on $Bi_2Sr_2Ca_2Cu_3O_{10+\delta}$ vortex matter: crossover from electromagnetic to Josephson interlayer coupling
Physical Review B **77**, 184508 (2008).
Groups: Fischer, van der Marel / Projects: 2, 3

► S. Seiro, Y. Fasano, I. Maggio-Aprile, E. Koller, O. Kuffer, and Ø. Fischer
Polaronic signature in the metallic phase of $La_{0.7}Ca_{0.3}MnO_3$ films detected by scanning tunneling spectroscopy
Physical Review B **77**, 020407(R) (2008).
Group: Fischer / Project: 1

► M. Therasse, M. Decroux, L. Antognazza, M. Abplanalp, and Ø. Fischer
Electrical characteristics of DyBCO coated conductors at high current densities for fault current limiter application
Physica C **468**, 2191 (2008).
Groups: Fischer, Abplanalp / Project: 6

Group of R. Flükiger

M. Hossain, C. Senatore, R. Flükiger, M. A. Rindfleisch, M. J. Tomsic, J. H. Kim, and S. X. Dou
Enhancement of J_c and B_{irr} of in situ MgB_2 wires and tapes alloyed with $C_4H_6O_5$ (malic acid) after cold densification
to be published in Superconductor Science & Technology (2009).
Group: Flükiger / Project: 6

C. Senatore and R. Flükiger
Correlation between superconducting transition width and relaxation rates in various industrial Y123 coated conductors
to be published in Superconductor Science & Technology (2009).
Group: Flükiger / Project: 6

R. Flükiger, C. Senatore, M. Cesaretti, F. Buta, D. Uglietti, and B. Seeber
Optimization of Nb_3Sn and MgB_2 wires
Superconductor Science & Technology **21**, 054015 (2008).
Group: Flükiger / Project: 6

R. Flükiger, D. Uglietti, C. Senatore, and F. Buta
Microstructure, composition and critical current density of superconducting Nb_3Sn wires
Cryogenics **48**, 293 (2008).
Group: Flükiger / Project: 6

C. Scheuerlein, M. Di Michiel, G. Arnau Izquierdo, and F. Buta

Phase transformations during the reaction heat treatment of internal tin Nb_3Sn Strands with high Sn content

IEEE Transactions on Applied Superconductivity **18**, 1754 (2008).

Group: Flükiger / Project: 6

C. Senatore, M. Cantoni, G. Wu, R. H. Liu, X. H. Chen, and R. Flükiger

Upper critical fields well above 100 T for the superconductor $SmFeAsO_{0.85}F_{0.15}$ with T_c = 46 K

Physical Review B **78**, 054514 (2008).

Group: Flükiger / Project: 6

Group of L. Forró

- C. Monney, H. Cercellier, F. Clerc, C. Battaglia, E. F. Schwier, C. Didiot, M. G. Garnier, H. Beck, P. Aebi, H. Berger, L. Forró, and L. Patthey

  Spontaneous exciton condensation in $1T-TiSe_2$: BCS-like approach

  Physical Review B **79**, 045116 (2009).

  Groups: Margaritondo, Aebi, Forró / Projects: 1, 3

- A. Akrap, R. Gaal, and L. Forró

  Resistive switching in β-SrV_6O_{15}

  The European Physical Journal B **61**, 287 (2008).

  Group: Forró / Project: 1

- A. Akrap, A. Rudolf, F. Rullier-Albenque, H. Berger, and L. Forró

  Influence of point defects on the metal-insulator transition in $BaVS_3$

  Physical Review B **77**, 115142 (2008).

  Groups: Forró, Margaritondo / Projects: 1, 3

M. Herak, M. Miljak, A. Akrap, L. Forró, and H. Berger

Magnetic anisotropy of paramagnetic and ferromagnetically ordered state of single crystal $BaVSe_3$

Journal of the Physical Society of Japan **77**, 093701 (2008).

Groups: Forró, Margaritondo / Projects: 1, 3

T. Ivek, T. Vuletić, S. Tomić, A. Akrap, H. Berger, and L. Forró

Collective charge excitations below the metal-to-insulator transition in $BaVS_3$

Physical Review B **78**, 035110 (2008).

Groups: Forró, Margaritondo / Projects: 1, 3

- B. Sipos, A. F. Kusmartseva, A. Akrap, H. Berger, L. Forró, and E. Tutiš

  From Mott state to superconductivity in 1T-TaS_2

  Nature Materials **7**, 960 (2008).

  Groups: Forró, Margaritondo / Projects: 1, 3

Group of T. Giamarchi

T. Jarlborg

Properties of high-T_c Copper Oxides from Band Models of Spin-Phonon Coupling

Journal of Superconductivity and Novel Magnetism **22** (2009).

Group: Giamarchi / Project: 2

- B. Thielemann, C. Rüegg, K. Kiefer, H. M. Rønnow, B. Normand, P. Bouillot, C. Kollath, E. Orignac, R. Citro, T. Giamarchi, A. M. Läuchli, D. Biner, K. Krämer, F. Wolff-Fabris, V. S. Zapf, M. Jaime, J. Stahn, N. B. Christensen, B. Grenier, D. F. McMorrow, and J. Mesot

  Field-controlled Magnetic Order in the Quantum Spin-Ladder System $(Hpip)_2CuBr_4$

  Physical Review B **79**, 020408(R) (2009).

  Groups: Giamarchi, Mesot / Project: 1

- C. Weber, A. Läuchli, F. Mila, and T. Giamarchi

  Orbital Currents in Extended Hubbard Models of High-T_c Cuprate Superconductors

  Physical Review Letters **102**, 017005 (2009).

  Groups: Giamarchi, Mila / Projects: 1, 2

- B. Barbiellini and T. Jarlborg

  Importance of Local Band Effects for Ferromagnetism in Hole-Doped La_2CuO_4 Cuprate Superconductors

  Physical Review Letters **101**, 157002 (2008).

  Group: Giamarchi / Project: 2

- E. Berg, E. G. Dalla Torre, T. Giamarchi, and E. Altman

  Rise and fall of hidden string order of lattice bosons

  Physical Review B **77**, 245119 (2008).

  Group: Giamarchi / Project: 1

- P. Chudzinski, M. Gabay, and T. Giamarchi

  Orbital current patterns in doped two-leg Cu-O Hubbard ladders

  Physical Review B **78**, 075124 (2008).

  Group: Giamarchi / Project: 2

- C. Dubois, G. Santi, I. Cuttat, C. Berthod, N. Jenkins, A. P. Petrović, A. A. Manuel, Ø. Fischer, S. M. Kazakov, Z. Bukowski, and J. Karpinski

Scanning Tunneling Spectroscopy in the Superconducting State and Vortex Cores of the β-pyrochlore KOs_2O_6

Physical Review Letters **101**, 057004 (2008).

Groups: Giamarchi, Fischer, Karpinski / Projects: 2, 3, 4

▶ M. Klanjšek, H. Mayaffre, C. Berthier, M. Horvatić, B. Chiari, O. Piovesana, P. Bouillot, C. Kollath, E. Orignac, R. Citro, and T. Giamarchi

Controlling Luttinger Liquid Physics in Spin Ladders under a Magnetic Field

Physical Review Letters **101**, 137207 (2008).

Group: Giamarchi / Project: 1

A. Kleine, C. Kollath, I. P. McCulloch, T. Giamarchi, and U. Schollwöck

Excitation in two-component Bose-gases

New Journal of Physics **10**, 045025 (2008).

Group: Giamarchi / Project: 1

▶ G. Levy de Castro, C. Berthod, A. Piriou, E. Giannini, and Ø. Fischer

Preeminent Role of the Van Hove Singularity in the Strong-Coupling Analysis of Scanning Tunneling Spectroscopy for Two-Dimensional Cuprates Superconductors

Physical Review Letters **101**, 267004 (2008).

Groups: Giamarchi, Fischer, van der Marel / Project: 2

G. León, C. Berthod, T. Giamarchi, and A. J. Millis

Hall effect on the triangular lattice

Physical Review B **78**, 085105 (2008).

Group: Giamarchi / Project: 1

▶ G. Roux, T. Barthel, I. P. McCulloch, C. Kollath, U. Schollwöck, and T. Giamarchi

Quasiperiodic Bose-Hubbard model and localization in one-dimensional cold atomic gases

Physical Review A **78**, 023628 (2008).

Group: Giamarchi / Project: 1

▶ C. Rüegg, K. Kiefer, B. Thielemann, D. F. McMorrow, V. Zapf, B. Normand, M. B. Zvonarev, P. Bouillot, C. Kollath, T. Giamarchi, S. Capponi, D. Poilblanc, D. Biner, and K. W. Krämer

Thermodynamics of the Spin Luttinger Liquid in a Model Ladder Material

Physical Review Letters **101**, 247202 (2008).

Groups: Giamarchi, Mesot / Project: 1

Group of M. Grioni

▶ G. Ghiringhelli, A. Piazzalunga, C. Dallera, T. Schmitt, V. Strocov, J. Schlappa, L. Patthey, X. Wang, H. Berger, and M. Grioni

Observation of Two Nondispersive Magnetic Excitations in NiO by Resonant Inelastic Soft-X-Ray Scattering

Physical Review Letters **102**, 027401 (2009).

Groups: Grioni, Margaritondo / Projects: 2, 3

M. Grioni, S. Pons, and E. Frantzeskakis

Recent ARPES experiments on quasi-1D bulk materials and artificial structures

Journal of Physics: Condensed Matter **21**, 023201 (2009).

Group: Grioni / Project: 1

▶ C. R. Ast, D. Pacilé, L. Moreschini, M. C. Falub, M. Papagno, K. Kern, M. Grioni, J. Henk, A. Ernst, S. Ostanin, and P. Bruno

Spin-orbit split two-dimensional electron gas with tunable Rashba and Fermi energy

Physical Review B **77**, 014007(R) (2008).

Group: Grioni / Project: 1

▶ E. Frantzeskakis, S. Pons, H. Mirhosseini, J. Henk, C. R. Ast, and M. Grioni

Tunable spin gaps in a quantum-confined geometry

Physical Review Letters **101**, 196805 (2008).

Group: Grioni / Project: 1

L. Moreschini, A. Bendounan, C. R. Ast, F. Reinert, M. Falub, and M. Grioni

Effect of rare-gas adsorption on the spin-orbit split bands of a surface alloy: Xe on Ag(111)−$(\sqrt{3}\times\sqrt{3})R30°$-Bi

Physical Review B **77**, 115407 (2008).

Group: Grioni / Project: 1

▶ D. Pacilé, M. Papagno, A. Fraile-Rodríguez, M. Grioni, L. Papagno, C. O. Girit, J. C. Meyer, G. E. Begtrup, and A. Zettl

Near-edge x-ray absorption fine-structure investigation of graphene

Physical Review Letters **101**, 066806 (2008).

Group: Grioni / Project: 1

Group of M. Hasler

▶ L. Antognazza, M. Therasse, M. Decroux, F. Roy, B. Dutoit, M. Abplanalp, and Ø. Fischer

Comparison between the behavior of HTS thin film grown on sapphire and coated conductors for fault current limiter applications

to be published in IEEE Transactions on Applied Superconductivity (2009).

Groups: Fischer, Abplanalp, Hasler / Project: 6

F. Roy, M. Therasse, B. Dutoit, F. Sirois, L. Antognazza, and M. Decroux
Numerical studies of the quench propagation in coated conductors for fault current limiters
to be published in IEEE Transactions on Applied Superconductivity (2009).
Groups: Fischer, Hasler / Project: 6

▶ F. Roy, B. Dutoit, F. Grilli, and F. Sirois
Magneto-thermal finite element modeling of 2nd generation HTS for FCL design purposes
Journal of Physics: Conference Series **97**, 012286 (2008).
Group: Hasler / Project: 6

F. Roy, B. Dutoit, F. Grilli, and F. Sirois
Magneto-Thermal Modeling of Second-Generation HTS for Resistive Fault Current Limiter Design Purposes
IEEE Transactions on Applied Superconductivity **18**, 29 (2008).
Group: Hasler / Project: 6

▶ F. Sirois, M. Dione, F. Roy, F. Grilli, and B. Dutoit
Evaluation of two commercial finite element packages for calculating AC losses in 2-D high temperature superconducting strips
Journal of Physics: Conference Series **97**, 012030 (2008).
Group: Hasler / Project: 6

Group of J. Hulliger

▶ J. B. Willems, J. Albrecht, I. L. Landau, and J. Hulliger
Superconducting phase formation in random neck syntheses: a study of the Y-Ba-Cu-O system by magneto-optics and magnetometry
Superconductor Science & Technology **22**, 045013 (2009).
Group: Hulliger / Project: 4

▶ J. B. Willems, D. Pérez, G. Couderc, B. Trusch, L. Dessauges, G. Labat, and J. Hulliger
Magnetic extraction of superconducting grains from ceramic combinatorial syntheses
Solid State Sciences **11**, 162 (2009).
Group: Hulliger / Project: 4

I. Landau
Comparison of the scaling analysis of mixed-state magnetization data with direct measurements of the upper critical field for $YBa_2Cu_3O_{7-x}$
Journal of Physics: Condensed Matter **20**, 275229 (2008).
Group: Hulliger / Project: 4

I. L. Landau, J. B. Willems, and J. Hulliger
Detailed magnetization study of superconducting properties of $YBa_2Cu_3O_{7-x}$ ceramic spheres
Journal of Physics: Condensed Matter **20**, 095222 (2008).
Group: Hulliger / Project: 4

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Groups: Troyer, Blatter / Project: 1

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Europhysics Letters **84**, 37009 (2008).

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Journal of Low Temperature Physics **152**, 156 (2008).

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Physical Review A **78**, 023605 (2008).

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Physical Review B **78**, 184418 (2008).

Groups: Troyer, Mila / Project: 1

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Group: Troyer / Project: 1

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  Physical Review Letters **101**, 166405 (2008).

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Group of K. Yvon

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Journal of Alloys and Compounds (2008), doi:10.1016/j.jallcom.2008.10.009.

Group: Yvon / Project: 6

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arXiv:0902.1057 (2009).
Group: Baeriswyl / Project: 2

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Group: Blatter / Project: 2

Group of M. Büttiker

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Entanglement at finite temperatures in mesoscopic conductors
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Group: Büttiker / Project: 1

Group of L. Degiorgi

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Charge dynamics of the spin-density-wave state in $BaFe_2As_2$
arXiv:0811.2195 (2008).
Group: Degiorgi / Project: 1

M. Lavagnini, A. Sacchetti, C. Marini, M. Valentini, R. Sopracase, A. Perucchi, P. Postorino, S. Lupi, J.-H. Chu, I. R. Fisher, and L. Degiorgi
Pressure dependence of the single particle excitation in the charge-density-wave $CeTe_3$ system
arXiv:0811.0342 (2008).
Group: Degiorgi / Project: 1

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Pressure-induced quenching of the charge-density-wave state observed by x-ray diffraction
arXiv:0811.0338 (2008).
Groups: Degiorgi, Mesot / Project: 1

Group of R. Flükiger

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Strong enhancement of J_c in binary and alloyed in-situ MgB_2 wires by a new approach: Cold high pressure densification
arXiv:0901.4546 (2009).
Group: Flükiger / Project: 6

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Irradiation effects in low T_c superconductors
in *Proceedings of the 2008 Workshop on Accelerator Magnet, Superconductor, Design and Optimization (WAMSDO)* (2008).
Group: Flükiger / Project: 6

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Group: Flükiger / Project: 6

Group of T. Giamarchi

T. Jarlborg
Spin-phonon coupling, q-dependence of spin excitations and high-T_c superconductivity from band models
arXiv:0804.2403 (2008).
Group: Giamarchi / Project: 2

Group of J. Karpinski

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Local study of the $Mg_{1-x}Al_xB_2$ single crystals by scanning tunneling spectroscopy in magnetic field up to 3 Tesla
Physica C **468**, 828 (2008).
Group: Karpinski / Projects: 3, 4

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arXiv:0812.1141v1 (2008).
Group: Karpinski / Projects: 3, 4

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arXiv:0809.4223v1 (2008).

Group: Karpinski / Projects: 3, 4

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Group: Karpinski / Projects: 3, 4

Group of H. Keller

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Jahn-Teller physics and high-T_c superconductivity

Materials Today **11**, 38 (2008).

Group: Keller / Project: 2

Group of D. van de Marel

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Infrared spectroscopy of electronic bands in bilayer graphene

arXiv:0810.2400 (2008).

Group: van der Marel / Project: 1

▶ E. van Heumen, E. Muhlethaler, A. B. Kuzmenko, D. van der Marel, H. Eisaki, M. Greven, W. Meevasana, and Z. X. Shen

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arXiv:0807.1730 (2008).

Group: van der Marel / Project: 2

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Far-infrared probe of superconductivity in $SmO_{1-x}F_xFeAs$

arXiv:0806.2303 (2008).

Group: van der Marel / Project: 2

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Phonon density of states, anharmonicity, electron-phonon coupling and possible multigap superconductivity in the clathrate superconductors Ba_8Si_{46} and $Ba_{24}Si_{100}$: Why is T_c different in these two compounds?

arXiv:0804.0535 (2008).

Group: van der Marel / Projects: 1, 2, 3

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Pressure-induced quenching of the charge-density-wave state observed by x-ray diffraction

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Groups: Degiorgi, Mesot / Project: 1

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Group: Mila / Project: 1

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Group of T. M. Rice

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arXiv:0812.3045 (2008).

Group: Rice / Project: 2

K. Le Hur and T. M. Rice

Superconductivity close to the Mott state: From condensed-matter systems to superfluidity in optical lattices

arXiv:0812.1581 (2008).

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Nature of Stripes in the Generalized t-J Model Applied to The Cuprate Superconductors

arXiv:0807.3789 (2008).

Groups: Sigrist, Rice / Project: 2

Group of A. Schilling

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Multi-project wafer scale process for productive research and development
Raith application note, Physics Institute of the University of Zurich, Switzerland (2008).

Group: Schilling / Project: 5

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Vortex avalanches in the non-centrosymmetric superconductor Li_2Pt_3B
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Groups: Sigrist, Rice / Project: 2

Group of J.-M. Triscone

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Group: Triscone / Project: 6

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Group: Triscone / Project: 6

Group of M. Troyer

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