15 Publications

15.1 Research group of Prof. C. Amsler

Articles

- Measurement of the decay distribution of $\eta' \to \pi^+\pi^-\eta$ and evidence for the box anomaly
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 402 (1997) 195
- Study of the $\pi^0\pi^0\eta'$ final state in $\bar{p}p$ annihilation at rest
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 404 (1997) 179
- Momentum Dependence of the Decay $\eta \to \pi^+\pi^-\pi^0$
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 417 (1998) 197
- ρ-ω interference in $\bar{p}p$ annihilation at rest into $\pi^+\pi^-\eta$
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 411 (1997) 354
- Measurement of the $\omega \to \eta\gamma$ decay branching ratio
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 411 (1997) 361
- Decay dynamics of the process $\eta \to 3\pi^0$
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 417 (1998) 193
- Antiproton-proton annihilation into $K_SK_L\pi^0\pi^0$
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 415 (1997) 280
- Antiproton-proton annihilation at rest into $K^0_LK^\pm\pi^\mp\pi^0$
  - manifestations of isospin interferences
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B 415 (1997) 289
- Hadron and Quark Dynamics
  C. Amsler et al. (Nupecc Advisory Group)
  Nucl. Phys. A 622 (1997) 315
- The MUNU experiment, general description
  C. Amsler et al. (MUNU collaboration)
  Nucl. Instrum. and Meth. A 396 (1997) 115
- Experimental status of the scalar and tensor mesons
  S. von Dombrowski
  Proc. LEAP '96 Conf., Dinkelsbühl, 1996, Nucl. Phys. B (Proc. Suppl.) 56A (1977) 125.
- Antiproton-proton anihilation at rest into $K_LK^\pm\pi^\mp$
  S. Spanier
  Proc. LEAP '96 Conf., Dinkelsbühl, 1996, Nucl. Phys. B (Proc. Suppl.) 56A (1997) 281
- Search for Glueballs at Crystal Barrel
  S. Spanier
  Proc. QCD '96 Conf., Montpellier, 1996, Nucl. Phys. B (Proc. Suppl.) 54A (1997) 362

Articles in press

- Proton-Antiproton Annihilation and Meson Spectroscopy with the Crystal Barrel
  C. Amsler
  Rev. Mod. Phys.
- Exotic $\eta\pi$ State in $\bar{p}d$ Annihilation at Rest into $\pi^-\pi^0\eta p_{spectator}$
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Lett. B
- $\bar{p}p$ annihilation at rest into $K_L K^\pm \pi^\mp$
  A. Abele et al. (Crystal Barrel collaboration)
  Phys. Rev. D

Conference reports

- Evidence for $a_0(1450)$ to $K\bar{K}$ in $\bar{p}p$ annihilation at rest
  M. Heinzelmann
  Proc. Hadron '97 Conference, Brookhaven, 1997
- Two-body decays of $f_0(1500)$
  S. Spanier
  Proc. High Energy Physics Conference, Jerusalem, 1997

Invited Lectures

- C. Amsler
  Seminaire, Université de Genève, 24.3.97
  "Mésons exotiques dans l'annihilation nucléon-antinucléon"
- F. Ould-Saada
  Seminar, Saclay, 12.12.97
  "Propriétés électromagnétiques du neutrino et l'expérience du Bugey"
- F. Ould-Saada
  Seminar, Universität Nijmegen, 12.1.98
  "Do neutrinos feel electromagnetism?"
- M. Heinzelmann
  Contributed talk, Hadron '97 Conference, Brookhaven, 26.8.97
  "Evidence for $a_0(1450)$ to $K\bar{K}$ in $\bar{p}p$ annihilation at rest"
- S. Spanier
  Contributed talk, High Energy Physics Conference, Jerusalem, 22.8.97
  "Two-body decays of $f_0(1500)$"
- S. Spanier
  Seminar, SLAC, 6.3.98
  "The scalar groundstate meson and glueball puzzle solution of Crystal Barrel"
- S. Spanier
  Seminar, Carnegie Mellon University, Pittsburgh, 9.3.98
  "Spin-parity analysis in γp"
- S. Spanier
  Seminar, Cornell University, Ithaca, 11.3.98
  "The scalar groundstate meson and glueball puzzle solution of Crystal Barrel"

- S. Spanier
  Seminar, Brookhaven National Laboratory, New York, 13.3.98
  "Search for exotic mesons with Crystal Barrel"

15.2 Research group of Prof. D. Brinkmann

Articles

- The model of singlet–correlated bands for temperatures and doping dependences of Cu(2) Knight shift in blilayered cuprates
  M. Eremin, S. Varlamov, I. Eremin, D. Brinkmann, R. Markendorf, M. Mali, and J. Roos
  Physica B 230–232 (1997) 952
- Electronic spin dynamics in $Ca_{0.85}Sr_{0.15}CuO_2$ – an NMR relaxation study
  F. Raffa, M. Mali, J. Roos, D. Brinkman, M. Matsumura and K. Conder
  Proceedings of 5th Intern. Conf. Materials and Mechanisms of Superconductivity High-Temperature Superconductors (M^2S–HTSC-V), Beijing, 1997, Physica C 282-287 (1997) 1371
- Strong Evidence for an Electronic Crossover around 180 K in $YBa_2Cu_4O_8$, an NMR/NQR study
  A. Suter, M. Mali, J. Roos, D. Brinkmann, and J. Karpinski
  Proceedings of 5th Intern. Conf. Materials and Mechanisms of Superconductivity High-Temperature Superconductors (M^2S–HTSC-V), Beijing, 1997, Physica C 282-287 (1997) 1345
- The paramagnetic phase of the infinite–layer antiferromagnet $Ca_{0.85}Sr_{0.15}CuO_2$ as seen by Cu NMR
  R. Pozzi, M. Mali, M. Matsumura, F. Raffa, J. Roos, and D. Brinkmann
  Phys. Rev. B 56 (1997) 759
- NMR–NQR studies of some key problems in high–temperature superconductors and related antiferromagnets
  D. Brinkmann
  Proc. Specialized Colloque AMPERE/Ramis 97, Poznaǹ, April 1997, Molecular Physics Reports 18/19 (1997) 99
- Electronic crossover in the normal state of $YBa_2Cu_4O_8$
  A. Suter, M. Mali, J. Roos, D. Brinkmann, J. Karpinski and E. Kaldis
  Phys. Rev. B 56 (1997) 5542
- Temperature dependence of the sublattice magnetization in the quasi–2D S=1/2 Heisenberg antiferromagnet La_2CuO_4
  M. Matsumura, M. Mali, J. Roos, and D. Brinkmann
  Phys. Rev. B 56 (1997) 8938
- Spin susceptibility and pseudogap in $YBa_2Cu_4O_8$: An approach via a charge–density–wave instability
  I. Eremin, M. Eremin, S. Varlamov , D. Brinkmann, M. Mali, and J. Roos
  Phys. Rev. B 56 (1997) 11305
- Thermodynamics of the neutral–to–ionic transition as condensation and crystallisation of charge–transfer excitations
  M.H. Lemée-Cailleau, M. Le Cointe, H. Cailleau, T. Luty, F. Moussa, J. Roos, D. Brinkmann, B. Toudic, C. Ayache, and N. Karl
  Phys. Rev. Letters 79 (1997) 1690

Articles in press

- Wide frequency range ^{31}P relaxation in the ionic conductor $LiPO_3$
  S. Berger, J. Roos, A. Zavidonov, and D. Brinkmann
  Solid State Nuclear Magnetic Resonance
- Spin Gap, Electronic Crossover, and Charge Density Waves in Y–Ba–Cu–O Superconductors
  D. Brinkmann
  Zeit. f. Naturforsch.
- Cu(2) NQR studies of $TmBa_2(Cu_{1-x}Zn_x)_4O_8$ superconductors
  A.V. Dooglav, A.V. Egorov, E.V. Krjukov, Yu. A. Sakhratov, M.A. Teplov, D. Brinkmann, M. Mali, J. Roos, J. Karpinski, and E. Kopnin
  Zeit. f. Naturforsch.
- Shape of the Cu(2) NQR spectra in $YBa_2Cu_3O_7$, $TmBa_2Cu_3O_7$ and $TmBa_2Cu_4O_8$: The quantitative analysis in the frame of the motional narrowing model
  A.V. Dooglav, A.V. Egorov, E.V. Krjukov, Yu.A. Sakhratov, M.A. Teplov, D. Brinkmann, M. Mali, J.Roos, J. Karpinski, E. Kopnin, and Yunhui Xu
  JETP

Conference reports

- The paramagnetic phase of the antiferromagnetic $YBa_2Cu_3O_6$ as seen by Cu(2) NMR
  R. Pozzi, M. Mali, J. Roos, D. Brinkmann, A. Erb, and R. Flükiger
  Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, 29 September - 1 October, 1997
- Isotope effect of the spin gap in $YBa_2Cu_4O_8$ as determined by ^{63}Cu NQR
  F. Raffa, T. Ohno, M. Mali, J. Roos, D. Brinkmann, and K. Conder
  Spring Meeting of Swiss Physical Society, 26/27 February 1998
- Interplane and intraplane coupling in the superconductirng state of $Y_2Ba_4Cu_7O_{15}$
  A. Suter, M. Mali, J. Roos, and D. Brinkmann Spring Meeting of Swiss Physical Society, 26/27 February 1998
- Internes Magnetfeld an Sauerstoffplätzen in antiferromagnetischem $YBa_2Cu_3O_6$
  J. Plaz, M. Mali, J. Roos, D. Brinkmann, and A. Erb Spring Meeting of Swiss Physical Society, 26/27 February 1998
- Pressure dependence of the sublattice magnetization of the antiferromagnetic $Ca_{0.85}Sr_{0.15}CuO_2$
  M. Igarashi, U. Lehmann, M. Mali, J. Roos, and D. Brinkmann
  Spring Meeting of Swiss Physical Society, 26/27 February 1998

Invited Lectures

- D. Brinkmann
  NMR–NQR studies of some key problems in high–temperature superconductors and related antiferromagnets
  Specialized Colloque AMPERE/ RAMIS '97, Poznan, 22–25 April 1997
- D. Brinkmann
  Pseudo gap, electronic crossover, and charge density waves in Y-Ba-Cu-O superconductors
  Kolloquium, MPI für Metallforschung,Stuttgart, 3 June 1997

- D. Brinkmann
  NMR-Streifzug durch die Hochtemperatur-Supraleitung
  Kolloquium, Univ. ZH, 18 June 1997
- D. Brinkmann
  Die Pseudo-Spinlücke in Hochtemperatur-Supraleitern: neue Einsichten mittels NMR-NQR
  Kolloquium, Universität des Saarlandes, Saarbrücken, 26 June 1997
- D. Brinkmann
  Spin gap, electronic crossover and charge density waves in Y-Ba-Cu-O superconductors
  XIV Intern. Symposium on Nuclear Quadrupole Interactions, Pisa, 20 – 25 July 1997
- D. Brinkmann
  NMR-NQR in the normal state of Y-Ba-Cu-O superconductors
  Workshop on *High–temperature superconductivity: Experimental facts, modelling and interpretation* Tellurdie Summer Research Center, Telluride, CO, 3–17 August, 1997
- D. Brinkmann
  Electronic crossover and spin gap in Y-Ba-Cu-O superconductors: new results by NMR-NQR
  Many Body Physics Workshop, Los Alamos Nat. Laboratory, 13–26 August 1997
- D. Brinkmann
  NMR-Untersuchungen zur Spinlücke in Hochtemperatur-Supraleitern
  Physik-Seminar, Universität Stuttgart, 13 January 1998

15.3 Research group of Prof. R. Engfer

Articles

- Improved Limit on the Branching Ratio of $\mu^- \to e^+$ Conversion on Titanium
  J.Kaulard, C.Dohmen, H.Haan, W.Honecker, D.Junker, G.Otter, M.Staringer, P.Wintz, J.Hofmann, W.Bertl, J.Egger, B.Krause, S.Eggli, R.Engfer, Ch.Findeisen, E.A.Hermes, T.Kozlowski, C.B.Niebuhr, M.Rutsche,, H.Pruys, and A.van der Schaaf
  (SINDRUM II Collaboration), Phys. Lett. B **422**, 334 (1998)

Articles in press

- Search for $\mu^- \to e^-$ Conversion on Titanium
  S. Eggli, R. Engfer, Ch. Findeisen, E.A. Hermes, T. Kozlowski, F. Muheim, C.B. Niebuhr, H.S. Pruys, M. Rutsche, and A. van der Schaaf
  in collaboration with: III. Physikalisches Institut B der RWTH Aachen, D-52056, Institut für Teilchenphysik der ETH Zürich, CH-5232 Villigen PSI, and Paul Scherrer Institut, CH-5232 Villigen PSI
  (SINDRUM II Collaboration), Phys. Rev. C.

Conference reports

- Frank Riepenhausen
  Sindrum 2: Searching for $\mu \to e$ Conversion with a Sensitivity of 10^{-14}
  Sixth Conference on the Intersections of Particle and Nuclear Physics (CIPANP97)
  Big Sky, Montana, May 27 - June 2, 1997

Invited Lectures

- R. Engfer
  Graduiertenkolleg an der Universität Tübingen, 19. 12. 1997
  Suche nach einer Leptonenzahl-Verletzung, ein Test von Symmetrien
- R. Engfer
  Seminar, Technische Universität Wien, 24. 3. 1998
  Verbotene μ-Reaktionen, ein Test fundamentaler Symmetrien
- A. van der Schaaf
  Workshop on *A $\mu \to e\gamma$ experiment at PSI?*, PSI, March 16 - 18, 1998
  The Intermediate Imaging Option.
- A. van der Schaaf
  International Symposium on *Lepton and Baryon Number Violation*, ECT, Trento, Italy, April 20 – 25, 1998
  The future of $\mu \to e\gamma$ at PSI.
- P. Wintz
  International Symposium on *Lepton and Baryon Number Violation*, ECT, Trento, Italy, April 20 – 25, 1998
  Results of the SINDRUM II experiment

15.4 Research group of Prof. H. Keller

Articles

- $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$ and $Y_2Ba_4Cu_{6+n}O_{14+n}$ single crystals: High pressure synthesis and properties
  J. Karpinski, H. Schwer, K. Conder, J. Löhle, R. Molinski, A. Morawski, C. Rossel, P. Bauer, D. Zech, and J. Hofer
  in: *Lecture Notes in Physics - Recent Developments in High Temperature Superconductivity*, ed. J. Klamut *et al.*, Vol. **475** (Springer Verlag, 1996) (pp. 83-102).
- Investigation of vortex behaviour in the organic superconductor κ-(BEDT-TTF)$_2$Cu(SCN)$_2$ using muon spin rotation
  S. L. Lee, F. L. Pratt, S. J. Blundell, C. M. Aegerter, P. A. Pattenden, K. H. Chow, E. M. Forgan, T. Sasaki, W. Hayes, and H. Keller
  Phys. Rev. Lett. **79**, 1563-1566 (1997).
- Using μSR to investigate the vortex lattice in high-temperature superconductors
  C.M. Aegerter and S.L. Lee
  Appl. Mag. Res. **13**, 75-93 (1997).
- Muon-spin rotation studies of the flux lattice in κ-(BEDT-TTF)$_2$Cu(SCN)$_2$
  S. L. Lee, S. J. Blundell, F. L. Pratt, P. A. Pattenden, E. M. Forgan, T. Sasaki, C. M. Aegerter, M. B. Hunt, K. H. Chow, W. Hayes, J. Singleton, H. Keller, and I. M. Savić
  Synth. Met. **85**, 1495-1496 (1997).
- μSR studies of the vortex lattice in high-T$_c$ and other superconductors
  E. M. Forgan, M. T. Wylie, S. Lloyd, M. P. Nutley, S. L. Lee, R. Cubitt, C. Aegerter, H. Keller, and T. W. Li
  Hyperfine Interactions **105**, 61-69 (1997).

- Giant oxygen-isotope shift of the ferromagnetic transition temperature in the colossal magnetoresistive $La_{1-x}Ca_xMnO_{3+y}$: Evidence for Jahn-Teller polarons
  Guo-meng Zhao, K. Conder, H. Keller, and K.A. Müller
  Zeitschrift für Physikalische Chemie **201**, 263-269 (1997).

- Pairing symmetry in single-layer tetragonal $Tl_2Ba_2CuO_{6+\delta}$ from in-plane torque anisotropy
  C. Rossel, M. Willemin, J. Hofer, H. Keller, Z.F. Ren, and J.H. Wang
  Physica C **282-287**, 136-139 (1997).

- EPR evidence of Jahn-Teller polaron formation in $La_{1-x}Ca_xMnO_{3+y}$
  A. Shengelaya, Guo-meng Zhao, H. Keller, and K.A. Müller
  Physica C **282-287**, 190-193 (1997).

- Oxygen isotope effects in the manganites and cuprates: Evidence for polaronic charge carriers
  Guo-meng Zhao, M.B. Hunt, K. Conder, H. Keller, and K.A. Müller
  Physica C **282-287**, 202-205 (1997).

- Flexible cantilevers for torque magnetometry with piezoresistive and capacitive readout
  C. Rossel and M. Willemin
  IBM Technical Disclosure Bulletin **40**, 119-124 (1997).

- Measuring magnetic moments
  University of Zurich and IBM collaboration
  IBM Research **3**, 7-8 (1997).

- s and d wave symmetry components in high-temperature cuprate superconductors
  K.A Müller and H. Keller
  in *High-Tc Superconductivity 1996: Ten Years after the Discovery*, ed. by E. Kaldis, E. Liarokapis, and K.A. Müller, Series E: Applied Sciences, Vol. **343** (Kluwer Academic Publishers, 1997) (pp. 7-29).

- High pressure crystal growth and properties of $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$, $Sr_{1-x}CuO_2$, $CaCuO_2$ and $Y_2Ba_4Cu_{6+n}O_{14+n}$
  J. Karpinski, H. Schwer, K. Conder, R. Molinski, G. I. Meijer, E. Kopnin, C. Rossel, D. Zech, J. Hofer, A. Wisniewski, and M. Baran
  in *High-Tc Superconductivity 1996: Ten Years after the Discovery*, ed. by E. Kaldis, E. Liarokapis, and K.A. Müller, Series E: Applied Sciences, Vol. **343** (Kluwer Academic Publishers, 1997) (pp. 177-198).

- Novel crossover from a metallic to an insulating ground-state in $(La_{0.5}Nd_{0.5})_{0.67}Ca_{0.33}MnO_3$ by increasing the oxygen mass
  Guo-meng Zhao, H. Keller, J. Hofer, A. Shengelaya, and K.A. Müller
  Solid State Commun. **104**, 57-61 (1997).

- Angular dependent muon-spin rotation on the mixed state of the organic superconductor κ-(BEDT-TTF)$_2$Cu(SCN)$_2$
  C. Ager, S. L. Lee, C. M. Aegerter, F. L. Pratt, S. J. Blundell, S. H. Lloyd, T. Sasaki, E. M. Forgan, and H. Keller
  J. Mag. Mag. Mat. **177 - 181**, 561-562(1998).

- Muon-spin rotation measurements on $Bi_2Sr_2CaCu_2O_{8+\delta}$ in the presence of columnar defects
  S. L. Lee, C. M. Aegerter, C. Ager, E. M. Forgan, S. H. Lloyd, and H. Keller
  J. Mag. Mag. Mat. **177 - 181**, 523-524 (1998).

- Non-local effects and vortex lattice transitions in YNi_2B_2C
D. McK. Paul, C. V. Tomy, C. M. Aegerter, R. Cubitt, S. H. Lloyd, E. M. Forgan, S. L. Lee, and M. Yethiraj
Phys. Rev. Lett. **80**, 1517-1520 (1998).
- Angular dependence of the disorder crossover in $Bi_2Sr_2CaCu_2O_{8+\delta}$ from muon spin rotation and torque magnetometry
C. M. Aegerter, J. Hofer, I. M. Savić, H. Keller, S. L. Lee, C. Ager, S. H. Lloyd, and E. M. Forgan
Phys. Rev. B **57**, 1253-1258 (1998).
- Piezoresistive cantilever designed for torque magnetometry
M. Willemin, C. Rossel, J. Brugger, M. Despont, H. Rothuizen, P. Vettiger, J. Hofer, and H. Keller
J. Appl. Phys. **83**, 1163-1170 (1998).
- Pairing symmetry from in-plane torque anisotropy in $Tl_2Ba_2CuO_{6+\delta}$ thin films
M. Willemin, C. Rossel, J. Hofer, H. Keller, Z.F. Ren, and J.H. Wang
Phys. Rev. B **57**, 6137-6144 (1998).
- Doping dependence of superconducting parameters in $HgBa_2CuO_{4+\delta}$ single crystals
J. Hofer, J. Karpinski, M. Willemin, G. I. Meijer, E. M. Kopnin, R. Molinski, H. Schwer, C. Rossel, and H. Keller
Physica C **297**, 103-110 (1998).
- Oxygen-isotope effect on the field-induced metal-insulator transition in $Pr_{2/3}Ca_{1/3}MnO_3$
B. García-Landa, M.R. Ibarra, J.M. De Teresa, G.M. Zhao, and H. Keller
Solid State Commun. **105**, 567-570 (1998).
- Crystals of $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$, $Y_2Ba_4Cu_{6+n}O_{14+n}$, $Sr_{1-x}Ca_xCuO_2$ and $Sr_{0.73}CuO_2$, high pressure synthesis and properties
J. Karpinski, H. Schwer, R. Molinski, G. I. Meijer, K. Conder, E. Kopnin, J. Löhle, C. Rossel, D. Zech, J. Hofer, A. Wisniewski, and R. Puzniak
in: *Studies of High Temperature Superconductors*, ed. A. Narlikar, Volume **24** (Nova Science Publisher, New York, 1998) (pp. 165-202).

Articles in press

- Ratio of small polarons to free carriers in $La_{2-x}Sr_xCuO_4$ from susceptibility measurements
K.A. Müller, Guo-meng Zhao, K. Conder and H. Keller
J.Phys.: Condens. Matter **10**, 291-296 (1998).
- Observation of vortex-lattice melting in twinned $YBa_2Cu_3O_{7-x}$ using neutron small angle scattering
C. M. Aegerter, S. T. Johnson, W. J. Nuttall, S. H. Lloyd, M. T. Wylie, M. P. Nutley, E. M. Forgan, R. Cubitt, S. L. Lee, D. McK. Paul, M. Yethiraj, and H. A. Mook
to appear in Phys. Rev. B (1998).
- Oxygen isotope effects in $(La_{0.5}Nd_{0.5})_{0.67}Ca_{0.33}MnO_3$: Relevance of the electron-phonon interaction to the phase segregation
M. R. Ibarra, G.M. Zhao, J.M. De Teresa, B. García-Landa, Z. Arnold, C. Marquina, P.A. Algarabel, and H. Keller
to appear in Phys. Rev. B (1998).

- Transition from dimerization to antiferromagnetic order in quasi one-dimensional $Ca_{0.83}CuO_2$
  G.I. Meijer, E.M. Kopnin, M. Willemin, J. Karpinski, H. Schwer, K. Conder, and C. Rossel
  to appear in Europhys. Lett. (1998).
- Microfabricated ultrasensitive piezoresistive cantilevers for torque magnetometry
  J. Brugger, M. Despont, C. Rossel, H. Rothuizen, P. Vettiger, and M. Willemin
  Invited paper, to appear in the *Transducers'97 special volumes of Sensors and Actuators*, submitted to Elsevier Science (1997).
- Single crystals of $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$ (n=1-5) and layers of $HgBa_2Cu_nO_4$ grown at gas pressure 10 kbar
  J. Karpinski, H. Schwer, E. Kopnin, R. Molinski, G. I. Meijer, K. Conder, J. Hofer, D. Zech
  in: *Proccedings of the International Workshop on Tl- and Hg-based Superconducting Materials*, Cambridge, May 1997, to appear in Journal of Superconductivity (1998).
- Spontaneous magnetization and antiferromagnetic correlations of the CuO_2 chains in $Sr_{0.73}CuO_2$
  A. Shengelaya, G.I. Meijer, J. Karpinski, Guo-meng Zhao, H. Schwer, E.M. Kopnin, C. Rossel, and H. Keller
  to appear in Phys. Rev. Lett. (1998).
- Muon-spin-rotation measurements of the penetration depth in $YBa_2Cu_4O_8$ superconductors
  A. Shengelaya, C.M. Aegerter, S. Romer, H. Keller, P.W. Klamut, R. Dybzinski, B. Dabrowski, J. Klamut, and I.M. Savić
  to appear in Phys. Rev. B (1998).

Conference reports

- Angular dependence of the dimensional crossover in $Bi_2Sr_2CaCu_2O_{8+\delta}$ single crystals by μSR and torque magnetometry
  C. M. Aegerter, S. L. Lee, H. Keller, J. Hofer, E. M. Forgan, I. M. Savić, C. Ager, and S. H. Lloyd
  Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland, 14-21 June, 1997.
- A μSR and SANS investigation of the phase diagram of $Bi_2Sr_2CaCu_2O_{8+\delta}$
  C. M. Aegerter, S. L. Lee, H. Keller, M. B. Hunt, E. M. Forgan, C. Ager, S. H. Lloyd, S. Romer, D. McK. Paul, and R. Cubitt
  Vortex Matter Monte Veritá', International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland,14-21 June, 1997.
- Effects of columnar defects on the pinning strength in $Bi_2Sr_2CaCu_2O_{8+\delta}$
  C. M. Aegerter, S. Romer, S. L. Lee, and H. Keller
  Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland, 14-21 June, 1997.
- High resolution neutron small angle diffraction study of vortex lattice transitions in YNi_2B_2C
  D. McK. Paul, C. V. Tomy, C. M. Aegerter, R. Cubitt, S. H. Lloyd, E. M. Forgan, S. L. Lee, and M. Yethiraj
  Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland, 14-21 June, 1997.

- Recent muon-spin rotation measurements on the organic superconductor κ-(BEDT-TTF)$_2$Cu(SCN)$_2$
S. L. Lee, C. M. Aegerter, F. L. Pratt, S. J. Blundell, T. Sasaki, E. M. Forgan, and H. Keller
Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland 14-21 June,1997.
- μSR studies of vortex fluctuations in irradiated crystals of $Bi_2Sr_2CaCu_2O_{8+\delta}$
S. L. Lee, C. M. Aegerter, S. H. Lloyd, E. M. Forgan, and H. Keller
Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland, 14-21 June, 1997.
- Flux lattice structures observed in untwinned YBCO using SANS
E. M. Forgan, S. T. Johnson, S. H. Lloyd, S. L. Lee, R. Cubitt, C. M. Aegerter, D. McK. Paul, and M. Yethiraj
Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland, 14-21 June, 1997.
- Flux lattice melting in twinned and untwinned YBCO observed by SANS
E. M. Forgan, S. T. Johnson, S. H. Lloyd, S. L. Lee, R. Cubitt, C. M. Aegerter, D. McK. Paul, and M. Yethiraj
Vortex Matter Monte Veritá, International Workshop on the inverstigation of Vortex Matter in Superconductors, Ascona, Switzerland ,14-21 June, 1997.
- Investigation on superconducting thin films by high sensitivity torque magnetometry
M. Willemin, C. Rossel, J. Hofer, and H. Keller
European Conference on Applied Superconductivity (EUCAS), Eindhoven, NL, 30 June - 3 July, 1997.
- High resolution neutron small angle diffraction study of vortex lattice transitions in YNi_2B_2C
C. M. Aegerter, D. McK. Paul, C. V. Tomy, R. Cubitt, S. H. Lloyd, E. M. Forgan, S. L. Lee, and M. Yethiraj
5th PSI Summer School on Neutron Scattering: 'Cold Neutrons: Large Scales - High Resolution', Zuoz, Switzerland, 9-15 August, 1997.
- Effects of columnar defects on the pinning strength in $Bi_2Sr_2CaCu_2O_{8+\delta}$
S. Romer, C. M. Aegerter, S. L. Lee, and H. Keller
Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997.
- Piezoresistive cantilever designed for torque magnetometry
M. Willemin, C. Rossel, J. Brugger, M. Despont, H. Rothuizen, P. Vettiger, J. Hofer, and H. Keller
Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997.
- Doping dependence of superconducting parameters in $HgBa_2CuO_{4+\delta}$ single crystals
J. Hofer, Guo-meng Zhao, J. Karpinski, M. Willemin, G. I. Meijer, E. M. Kopnin, R. Molinski, H. Schwer, C. Rossel, and H. Keller
Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997.
- High pressure synthesis and properties of $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$ (n=1-5), infinite chain $A_{1-x}CuO_2$ (A:Sr,Ca,Ba) and infinit layer $Sr_{1-x}Ca_xCuO_2$ compounds
J. Karpinski, H. Schwer, R. Molinski, G. I. Meijer, E. Kopnin, K. Conder, C. Rossel,

J. Hofer, M. Willemin, A. Shengelaya, and H. Keller
Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997.

- Spontaneous magnetization and antiferromagnetic correlations of the CuO_2 chains in $Sr_{0.73}CuO_2$
  A. Shengelaya, G.I. Meijer, J. Karpinski, Guo-meng Zhao, H. Schwer, E.M. Kopnin, C. Rossel, and H. Keller
  Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997.
- New sensors for torque magnetometry
  M. Willemin, C. Rossel, J. Brugger, H. Rothuizen, P. Vettiger, J. Hofer, and H. Keller
  Swiss Physical Society Meeting, Bern, 26-27 February, 1998.
- Doping dependence of superconducting parameters in $HgBa_2CuO_{4+\delta}$ single crystals
  J. Hofer, Guo-meng Zhao, J. Karpinski, M. Willemin, G. I. Meijer, E. M. Kopnin, R. Molinski, H. Schwer, C. Rossel, and H. Keller
  Swiss Physical Society Meeting, Bern, 26-27 February, 1998.

Invited Lectures

- H. Keller
  Ringvorlesung
  Volkshochschule Zürich, 13 January, 1997
  "Physik des Lichts II: Von der Glühlampe zum Laser"
- H. Keller
  Seminar
  Kazan State University, Kazan, Russia, September 1997
  "Probing high-temparature superconductivity' with positive muons"
- C. M. Aegerter
  Invited talk
  Solid State Physics Colloquium, Laboratoire CRISMAT, Caen France, 10 June, 1997
  "Le diagramme de phase du réseau de vortex dans $Bi_2Sr_2CaCu_2O_{8+\delta}$ investigué à l'aide de rotation de spin de muon et de la diffraction de neutrons à petit angle"
- C. M. Aegerter
  Invited talk
  Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997
  "SANS investigation of vortex lattice melting in twinned $YBa_2Cu_3O_{7-x}$"
- A. Schilling
  Invited talk
  Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September, 1997
  "Anisotropic latent heat of vortex-lattice melting in untwinned $YBa_2Cu_3O_7$"
- A. Shengelaya
  Invited talk
  International Laboratory of High Magnetic Fields and Low Temperatures, Wroclaw, Poland, December, 1997
  "Muon-spin-rotation measurements of the penetration depth in $YBa_2Cu_4O_8$ superconductors"

- M. Willemin
  Invited lecture
  Institut jurassien des sciences, des lettres et des arts, Tramelan, 25 September, 1996.
  Cahiers de l'Institut jurassien des sciences, des lettres et des arts **4**, 23 (1997). "Les galaxies et leur évolution"
- Guo-meng Zhao
  Invited talk
  Electron-Phonon Interaction and Phase Transition, Erice, Italy, June 9-15, 1997
  "Oxygen isotope effects in the magnetoresistive manganites and superconductive cuprates: Evidence for polaronic charge carriers"
- Guo-meng Zhao
  Invited talk
  International School of Physics "Erico Fermi" Course: Models and Phenomenology for Conventional and High-Temperature Superconductivity, Varenna, Italy, 24 June - 4 July, 1997
  "Oxygen isotope effects in the manganites and cuprates: Evidence for polaronic charge carriers"
- Guo-meng Zhao
  Invited talk
  Dynamical Properties of Solids (DYPROSO XXVI), Davos, Switzerland, 21-26 September, 1997
  "Giant oxygen isotope effects in the CMR manganites"
- Guo-meng Zhao
  Invited talk
  Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, Switzerland, 29 September - 1 October, 1997
  "Evidence for polaronic supercarriers in the cuprate $La_{2-x}Sr_xCuO_4$"

15.5 Research group of Prof. W. Kündig

Articles

- Gravitational Constant Measured by Means of a Beam Balance
  J. Schurr, F. Nolting, and W. Kündig
  Phys. Rev. Lett. **80**, 1142 (1998).

Articles in press

- Direct Measurements of the Neutrino Masses
  E. Holzschuh
  In Neutrino physics, 2nd edition, ed. K. Winter, Cambridge University Press.
- A new experiment to measure G by means of a beam balance
  F. Nolting, J. Schurr, and W. Kündig
  Proceedings of the Eigth Marcel Grossman Meeting in General Relativity, Jerusalem, Israel June 1997.

Conference reports

- A new experiment to measure G by means of a beam balance, presented by F. Nolting, Eigth Marcel Grossman Meeting in General Relativity, Jerusalem, Israel June 1997.

- Präzisionsmessung der Gravitationskonstante, presented by J. Schurr, spring meeting of the German Physical Society, Regensburg März 1998.

Invited Lectures

- W. Kündig
  Experimente zur Gravitation
  Physikalische Gesellschaft Zürich, 29. Januar 1998

15.6 Research group of Prof. P. F. Meier

Articles

- J. M. Singer, M. Pedersen, T. Schneider,
  From BCS-like superconductivity to condensation of local pairs:
  A numerical study of the attractive Hubbard model.
  Physica B **230-232**, 955 (1997).
- J. Schneider, M. Dankesreiter, W. Fettes, I. Morgenstern, M. Schmid, J. M. Singer,
  Search-space smoothing for combinatorial optimization problems.
  Physica A **243**, 77 (1997).
- T. Schneider and J. M. Singer,
  Universal Critical Quantum Properties of Cuprate Superconductors.
  in: *Fluctuation Phenomena in High Temperature Superconductors*,
  A. Ausloos and A. Varlamov (Eds.), Kluwer Academic, Dordrecht, 1997
- T. Schneider and J. M. Singer,
  Crossover and quantum critical phenomena in high-temperature superconductors.
  Europhysics Letters **40**, 79 (1997).
- J. M. Singer and P. F. Meier,
  Hubbard model predictions for the Knight shift in cuprates.
  Physica C **282-287**, 1795 (1997).
- E. Stoll, C. Stern, J. M. Singer, P. Stucki,
  Doping high T_c superconductors with oxygen and metallic atoms: A molecular dynamics study.
  J. Mater. Res. **12**, 2901 (1997).
- P. Gravila,
  Ph.D. thesis,
  University of Zürich (1997)
- N. Paschedag, H. U. Suter, P. F. Meier,
  Comparative calculations on the hyperfine parameters of bond-centered impurities in silicon using high-level ab initio techniques.
  Hyperfine Interactions **105**, 351 (1997).
- H. U. Suter, E. P. Stoll, P. Hüsser, S. Schafroth, P. F. Meier,
  A theoretical study of the local electronic structure of two adjacent Cu-O-planes in $YBa_2Cu_3O_7$.
  Physica C **282-287**, 1639 (1997).
- P. Hüsser, S. Schafroth, E. Stoll, H. U. Suter, P. F. Meier,
  First-Principles Calculation of Electric-Field Gradients at the Cu Sites in $YBa_2Cu_3O_7$.
  Helv. Phys. Acta **70**, Separanda 2 (1997), S25.

- E. Stoll, C. Stern, P. Stucki,
  A User Project: System Architecture for Parallel Particle Simulation in Real-Time: Model Calculation and Visualization in Molecular Dynamics.
  CrosSCutS, **6**(1), 26 (1997).
- C. Stern, P. Stucki, E. Stoll,
  A toolkit for interactive molecular dynamics simulation and visualization,
  Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, **389**(1-2), 69 (1997).
- Erich Stoll,
  A fast cluster counting algorithm for percolation on and off lattices,
  Computer Physics Communications, **109**(1), 1 (1998).
- R. M. Dünki and G. B. Schmid,
  Unfolding dimension and the search for functional markers in the human electroencephalogram,
  Physical Review E **57**, 2115 (1998).
- G. B. Schmid and R. M. Dünki,
  Indications of nonlinearity, intraindividual specifity and stability of human EEG: The unfolding dimension,
  Physica D **93**, 163 (1996).

Articles in press

- J. M. Singer, T. Schneider, M. H. Pedersen,
  On the Phase Diagram of the Attractive Hubbard Model:
  Crossover and Quantum Critical Phenomena
  to appear in European Physical Journal B **1**, 1998.
- J. Schneider, I. Morgenstern, J. M. Singer,
  Bouncing towards the optimum – Improving results of Monte Carlo optimization algorithms
  to appear in Physical Review E, 1998.
- T. Schneider and J. M. Singer,
  A Phase Transition Approach to High Temperature Superconductivity
  "Troisieme Cycle de la Physique en Suisse Romande",
  semestre d'hiver 1997-98, Ecole Polytechnique Federal Lausanne.
- P. Hüsser, E.P. Stoll, H.U. Suter, and P.F. Meier,
  First-Principles Calculation of Electric-Field Gradients at the Cu Sites in $YBa_2Cu_3O_7$,
  to appear in Physica C (1998).

Invited Lectures

- R. M. Fuchslin,
  Physics Seminary, Univ. Zuerich, November 1997.
- R. M. Fuchslin,
  18th μSR seminar in Repino, Russia.
- R. M. Fuchslin,
  CAP Seminar, University of Zurich, 1997.

- P. F. Meier,
  Telluride Summer Research Center Workshop on High Temperature Superconductivity, Telluride, CO, USA, August 1997.
- P. F. Meier,
  Dept. of Psychology, University of British Columbia, Vancouver, CA, Februar 1998.
- J. M. Singer,
  Aspen Winter Conference on Strongly Correlated Systems,
  Aspen, CO, USA, Januar 1997.
- J. M. Singer,
  Telluride Summer Research Center Workshop on High Temperature Superconductivity, Telluride, CO, USA, August 1997.
- J. M. Singer,
  Swiss Workshop on Superconductivity, Les Diablerets, September 1997.
- J. M. Singer,
  IRRMA und Dept. of Physics, Colloquium, EPFL Laussanne, Januar 1998.

15.7 Research group of Prof. J. Osterwalder

Articles

- Suppressed forward scattering in photoelectron holography
  T. Greber and J. Osterwalder
  Prog. in Surf. Sci. 53 (1996) 163
- Fermi surface mapping by photoemission
  J. Osterwalder
  Surf. Rev. Lett. 4 (1997) 391
- Angle–scanned photoemission on Bi–type high Tc superconductors: Fermi surfaces and thin metal films
  P. Aebi, P. Schwaller, J. Osterwalder, R. Fasel, H. Berger, C. Beeli, and L. Schlapbach
  Proceedings of ECASIA 95, 6th European Conference on Applications of Surface and Interface Analysis, H. J. Mathieu, B. Reihl, D. Briggs, eds. (John Wiley & Sons, Chichester 1997), p. 733
- Surface alloy formation and interdiffusion in $\sqrt{5}$x$\sqrt{5}$R27 – Yb/Al(001): a combined low–energy electron diffraction and photoelectron diffraction study
  R. Fasel, M. Gierer, H. Bludau, P. Aebi, J. Osterwalder, and L. Schlapbach
  Surf. Sci. 374 (1997) 104
- Electronic and atomic structure of $\sqrt{5}$x$\sqrt{5}$R27 – Yb/Al(001)
  R. Fasel, P. Aebi, T. Greber, J. Osterwalder, and L. Schlapbach
  Surf. Rev. Lett. 4 (1997) 1155
- Real–space mapping of the surface atomic environment via low–energy ion scattering spectroscopy
  R. G. Agostino, P. Aebi, J. Osterwalder, J. Hayoz, and L. Schlapbach
  Surf. Sci. 384 (1997) 36
- Structural and spectroscopic investigation of the Yb/Al(001) interface in the submonolayer coverage range
  R. Fasel, P. Aebi, J. Osterwalder, and L. Schlapbach
  Surf. Sci. 394 (1997) 129

- The temperature–dependent electronic structure of nickel metal
  T. J. Kreutz
  PhD Thesis, Physik-Institut, Universität Zürich, 1997
- Photoemission above the Fermi level: the top of the minority d band in nickel
  T. Greber, T. J. Kreutz, and J. Osterwalder
  Phys. Rev. Lett. 79 (1997) 4465
- A photoelectron spectrometer for k–space mapping above the Fermi level
  T. Greber, O. Raetzo, T. J. Kreutz, P. Schwaller, W. Deichmann, E. Wetli, and J. Osterwalder
  Rev. Sci. Instrum. 68 (1997) 4549
- Doping–dependent electronic structure of cuprates: a photoemission study
  P. Schwaller
  PhD Thesis, Physik-Institut, Universität Zürich, 1997
- Semiclassical theory for the interaction dynamics of laser light and sodium atoms including the hyperfine structure
  S. Dangel and R. Holzner
  Phys. Rev. A 56 (1997) 3937
- Dynamics of light pattern formation for polarized laser beams propagating through sodium vapor
  S. Dangel and R. Holzner
  J. Opt. Soc. Am. B 15 (1998) 594
- Nonlinear dynamics of laser light pattern formation in sodium vapor
  S. Dangel
  PhD Thesis, Physik-Institut, Universität Zürich, 1997
  This thesis has received the LEICA price 1997 for excellent scientific work in optics related physics.
- Optical pumping–induced spatio–temporal modifications to propagation, polarization and intensity of laser beams in sodium vapor
  R. Holzner and S. Dangel
  Quantum Semiclass. Opt. 10 (1998) R1
- Observation of magnetic–field–induced laser beam deflection in sodium vapor
  R. Holzner, P. Eschle, S. Dangel, R. Richard, H. Schmid, U. Rusch, B. Röhricht, R. J. Ballagh, A. W. McCord, and W. J. Sandle
  Phys. Rev. Lett. 78 (1997) 3451
- Ablenkung von Licht durch Licht
  R. Holzner
  Neue Zürcher Zeitung, 31.12.1997, p. 22
- Charge–transfer induced particle emission in Gas Surface Reactions
  T. Greber
  Surf. Sci. Rep. 232 (1997) 1
- Verfahren zur Einstellung des Sauerstoffgehaltes in einem sauerstoffhaltigen Volumenbereich eines Festkörpers
  P. Schwaller, T. Greber und J. Osterwalder
  CH-Pat. Ges. No:2510/97
- Comparison of maximal left ventricular intramyocardial artery lumen diameter in 2 aneurysmectomy specimen after TMR and 44 control patients

W. Schweitzer, S. Dangel, M. Schäpman, M. Wagen , D. Maass , S. Cordner, and Th. Hardmeier
Lasermedizin 13 (1998) 83

Articles in press

- High–resolution photoemission study of hcp-Co(0001)
  E. Wetli, T. J. Kreutz, H. Schmid, T. Greber, and J. Osterwalder
  Surf. Sci.
- Complete k–space mappings of cuprates at different doping levels
  P. Schwaller, T. Greber, H. Berger, and J. Osterwalder
  J. Phys. Chem. Solids
- Angle–scanned photoemission: Fermi surface mapping and structural determination
  P. Aebi, R. Fasel, D. Naumovic, J. Hayoz, Th. Pillo, M. Bovet, R. G. Agostino, L. Patthey, L. Schlapbach, F. P. Gil, H. Berger, T. J. Kreutz, and J. Osterwalder
  Surf. Sci.
- Semiconductor–metal transition of the single domain K/Si(100)-(2x1) by Fermi surface determination
  J. A. Martin-Gago, M. C. Asensio, P. Aebi, R. Fasel, D. Naumovic, J. Osterwalder, C. Refolio, J. M. Lopez-Sancho, and J. Rubio
  Phys. Rev. B
- State and orientation dependent N_2 emission in the $N_2O + Cs$ reaction
  M. Brandt, T. Greber, N. Böwering, and U. Heinzmann
  Surf. Sci.
- Copper Electrodeposition onto Alkanothiolate Layers
  O. Cavalleri, A. M. Bittner, H. Kind, K. Kern, and T. Greber
  Z. Phys. Chem.

Conference reports

- Spatio–temporal light–pattern formation due to optical pumping of circularly polarized laser beams propagating through sodium vapor
  R. Holzner and S. Dangel
  First Conference on Polarization Effects in Lasers and Spectroscopy, University of Toronto, Canada, May 24-28, 1997
- Deposition and laser–induced desorption of sodium atoms on plain glass and on glass coated by a self–assembling monolayer of organic molecules
  R. Holzner, H. Neff, and J. Osterwalder
  Conference on Surface and Interface Optics, Ålesund, Norway, June 1-4, 1997
- Probing the heat of hot adatoms by exoemission
  T. Greber
  Poster, Gordon Research Conference on Dynamics at Surfaces, Andover, New Hampshire, 12.8.97
- New modes of data acquisition in ARUPS: studying the temperature dependent electronic structure of nickel
  T. J. Kreutz
  7th International Conference on Electron Spectroscopy, Chiba, Japan, 11.9.97

- Measuring band dispersion of thermally excited electrons
  J. Osterwalder
  17th European Conference on Surface Science (ECOSS-17), Enschede, Holland, 18.9.97
- High-resolution photoemission study of hcp-Co(0001)
  E. Wetli
  Poster, 17th European Conference on Surface Science (ECOSS-17), Enschede, Holland, 18.9.97
- Subsurface oxygen on Rh(111): an x–ray photoelectron diffraction study
  J. Wider
  Poster, 17th European Conference on Surface Science (ECOSS-17), Enschede, Holland, 18.9.97
- Doping–dependent electronic structure of cuprates: a photoemission study
  P. Schwaller
  Poster, Spectroscopy on Novel Superconductors, Cape Cod, Massachussetts, 14.-18.9.97
- Evolution of the Fermi surface of BiSrCaCuO (2212) with doping
  P. Schwaller
  Swiss Workshop on Superconductivity and Novel Metals, Les Diablerets, 29.9.-1.10. 1997
- Controlled underdoping of cuprates by UV radiation
  P. Schwaller
  Jahrestagung der Schweizerischen Physikalischen Gesellschaft, Bern, 27.2.98
- Subsurface Sauerstoff auf Rh(111): eine XPD Untersuchung
  J. Wider
  Jahrestagung der Schweizerischen Physikalischen Gesellschaft, Bern, 27.2.98
- Wachstum und Charakterisierung einer Monolage h-BN auf Ni(111)
  W. Auwärter
  Jahrestagung der Schweizerischen Physikalischen Gesellschaft, Bern, 27.2.98

Invited Lectures

- T. J. Kreutz
  Temperaturabhängige Untersuchungen der elektronischen Struktur von metallischem Nickel mittels winkelgerasterter Photoelektronenspektroskopie
  Seminar, Physik-Institut der Universität Basel, 22.4.97
- S. Dangel
  Dynamik der Musterbildung von polarisierten Laserstrahlen in Natriumdampf
  Promotionsvortrag, Physik-Institut, Universität Zürich, 22.5.97
- T. Greber
  Exoemission als Probe für heissen Sauerstoff auf Oberflächen
  Gruppenseminar Physikalische Chemie der Universität Zürich, 3.6.97
- E. Wetli
  Femtosekunden-Laser-Einsatz in einem Elektronenstreuexperiment
  Gruppenseminar Physikalische Chemie der Universität Zürich, 10.6.97
- J. Osterwalder
  Photoelektronenbeugung zur Untersuchung von Adsorbatstrukturen
  Kolloquium, Fachbereich Physik der Universität Kassel, 19.6.97

- J. Osterwalder
  Photoelektronenbeugung zur Untersuchung von Adsorbatstrukturen
  Invited Talk, International Conference on Auger Spectroscopy and Electronic Structure (IWASES), Jülich, 23-26.6.97
- S. Dangel
  Simulating the dynamics of laser beam pattern formation on the SX–4
  Seminar, CSCS, Manno, 1.9.97
- S. Dangel
  Simulation der Musterbildungsdynamik von Laserlicht in Natriumdampf
  Seminar, Physikinstitut, Universität Münster, 13.10.97
- S. Dangel
  Dynamik der Musterbildung von polarisierten Laserstrahlen in Natriumdampf
  Generalversammlung der Schweizerischen Gesellschaft für Optik und Elektronenmikroskopie (SGOEM), Entgegennahme des "Leica Preises 1997", Universität Zürich, 17.10.97
- P. Schwaller
  Dotierungsabhängigkeit der Fermifläche von Kupraten untersucht mit Photoemissionsexperimenten
  Promotionsvortrag, Physik-Institut, Universität Zürich, 30.10.97
- J. Osterwalder
  Photoelectron diffraction and Fermi surface mapping
  Blockkurs in Elektronenspektroskopie, Universität Ulm, 7.11.97
- P. Schwaller
  Doping–dependent electronic structure of cuprates Festkörperseminar, Universität Neuenburg, 25.11.97
- S. Dangel
  Semiklassische Theorie der Wechselwirkung zwischen Laserlicht und Natriumdampf mit Hyperfeinstruktur
  Seminar, Institut für angewandte Physik, Universität Konstanz, 12.12.97
- T. Greber
  Nichtadiabatische Gas-Oberflächenreaktionen: O_2 und N_2O mit Alkalimetallen
  Seminar, Physikalische Chemie der Universität Zürich, 18.12.97
- P. Schwaller
  Dotierungsabhängige elektronische Struktur von Kupraten
  Festkörperseminar, Université de Fribourg, 12.1.98
- T. J. Kreutz
  The temperature–dependent magnetism of nickel studied by photoemission experiments
  Festkörperseminar, Université de Fribourg, 26.1.98
- T. Greber
  Über Bornitride, die polaren Schwestern von Diamant, Graphit und Russ – oder das Photoemissionsexperiment an der Aussenstation Irchel
  Aerosol-Seminar, ETH Zürich, 28.1.98
- P. Schwaller
  The doping dependence of the electronic structure of cuprates
  Seminar, Institut de Physique Appliqué, EPF Lausanne, 29.1.98

- J. Osterwalder
  Struktur atomarer und molekularer Monolagen aus Photoemissionsexperimenten
  Kolloquium, Erich-Schmid-Institut der Oesterreichischen Akademie der Wissenschaften, Leoben, 5.3.98

15.8 Research group of Prof. P. Truöl

Articles

- Experiment E865 at BNL: A search for the decay $K^+ \to \pi^+ \mu^+ e^-$
  Stefan Pislak
  Thesis Universität Zürich (1997)
- Observation of Events at very High Q^2 in ep collisions at HERA
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 024
  Zeitschrift für Physik **C74** (1997), 191 - 205
- Diffraction Dissociation in Photoproduction at HERA
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 009
  Zeitschrift für Physik **C74** (1997), 221 - 235
- A Measurement of the Proton Structure Function $F_2(x, Q^2)$ at Low x and Low Q^2 at HERA
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 042
  Nuclear Physics **B497** (1997), 3 - 30
- Bose-Einstein Correlations in Deep Inelastic ep Scattering at HERA
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 075
  Zeitschrift für Physik **C75** (1997), 437 - 451
- Proton Dissociative ρ and Elastic Φ Electroproduction at HERA
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 082
  Zeitschrift für Physik **C75** (1997), 607 - 618
- Photoproduction of K^0 and Λ at HERA and a Comparison to Deep Inelastic Scattering
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 095
  Zeitschrift für Physik **C76** (1997), 213 - 221
- Measurement of Event Shape Variables in Deep Inelastic ep Scattering
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 098
  Physics Letters **B406** (1997), 256 - 270
- Evolution of ep Fragmentation and Multiplicity Distributions in the Breit Frame
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 108
  Nuclear Physics **B504** (1997), 3 - 23
- Inclusive Measurement of Diffractive Deep-Inelastic ep Scattering
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 158
  Zeitschrift für Physik **C76** (1997), 613 - 629

- Measurement of the Inclusive Di-Jet Cross Section in Photoproduction and Determination of an Effective Parton Distribution in the Photon
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 164
  The European Physical Journal **C1** (1998), 97 -107
- Low Q^2 Jet Production at HERA and Virtual Photon Structure
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 179
  Physics Letters **B415** (1997), 418 - 434
- Thrust Jet Analysis in Deep-Inelastic Large-Rapidity-Gap Events
  H1-Collaboration**, C. Adloff et al.
  DESY 97 – 210
  The European Physical Journal **C1** (1998), 495 - 507

Articles in press

- Photoproduction of $\Psi(2s)$ Mesons at HERA
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- Muon Capture on ^{11}B: Pseudoscalar Coupling and the Hyperfine Effect
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- Heavy quark and jet production by real and virtual photons
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