

1. Record Nr.	UNINA9910815734803321
Titolo	Proceedings of Physical Phenomena at High Magnetic Fields-IV : Santa Fe, New Mexico, USA, 19-25 October 2001 // editors G. Boebinger ... [et al.]
Pubbl/distr/stampa	Singapore ; ; River Edge, N.J., : World Scientific, c2002
ISBN	981-277-780-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (800p.)
Altri autori (Persone)	BoebingerG
Disciplina	538/.3
Soggetti	Magnetic fields Semiconductors Superconductors Fermions Quantum Hall effect
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	pt. I. Semiconductors/QHE. Quantum Hall effect in AIs 2D electron systems / E.P. De Poortere ... [et al.] -- Tunneling in a quantum Hall excitonic condensate / J.P. Eisenstein ... [et al.] -- Quantum Hall liquid crystals / M.M. Fogler -- Ultrafast manipulation of electron spin coherence in quantum wells / J.A. Gupta ... [et al.] -- Zero-bias conductance anomaly in bilayer quantum Hall systems / Y.N. Joglekar and A.H. MacDonald -- Some fractions are more special than others: news from the fractional quantum Hall zone / W. Pan ... [et al.] -- Possible new phases of composite fermions / V.W. Scarola, S.Y. Lee and J.K. Jain -- Intersubband magnetophonon resonances in quantum cascade structures / D. Smirnov ... [et al.] -- Interference and decoherence of composite fermions in the quantum Hall effect / A. Stern -- Current-driven magnons in magnetic multilayers / M. Tsoi -- Contributed papers. Theory of surface-acoustic-wave propagation in the $\nu = 5/2$ fractional quantum Hall state / K.C. Foster, N.E. Bonesteel and S.H. Simon -- High magnetic field dependent diamagnetic shifts in Al[ $\mu$ ] semiconductor alloys / E.D. Jones ... [et al.] -- Effect of strong terahertz radiation on magnetoconductivity in two-dimensions /

R.A. Lewis ... [et al.] -- Tunneling zero-bias anomaly in the ultra-quantum limit / D.L. Maslov, S.-W. Tsai and L.I. Glazman -- High magnetic field optical studies of charged exciton in CdTe 2D electron gases / N. Negre ... [et al.] -- Increase of quantum Hall plateau widths due to electron-phonon interaction / J. Riess ... [et al.] -- Search for superluminal propagation in high magnetic fields / J. Riess -- Impurities in a magnetic-field-induced Luttinger liquid / S.-W. Tsai, D. L. Maslov and L.I. Glazman -- Reconstruction of fractional quantum Hall edges / X. Wan, K. Yang and E.H. Rezayi -- Sample cooling and rotation at ultra-low temperatures and high magnetic fields / J.S. Xia ... [et al.] -- pt. II. Heavy fermions. Does the heavy electron maintain its integrity at quantum critical point? / P. Coleman -- Observation of a second energy scale in YbAl[symbol] above 40 T / A.L. Cornelius ... [et al.] -- High pressure transport study of non-Fermi liquid behaviour in U[symbol] and U[symbol] / A. de Visser, P. Estrela and T. Naka -- The de Haas-van Alphen effect in CeMn[symbol] (where M = Rh and Co) / D. Hall ... [et al.] -- Superconducting and normal state properties of the heavy fermion compound PrOs[symbol] / P.-C. Ho ... [et al.] -- Specific heat anomaly for H = 28.5 T in CeIrIn[symbol] / J.S. Kim ... [et al.] -- Thermodynamic studies of the field-induced gap in the quasi-one-dimensional S = 1/2 antiferromagnet Yb[symbol] / M. Lang ... [et al.] -- Two-component superconductivity of heavy fermionic material UPt[symbol] / V.P. Mineev and T. Champel -- CeMn[symbol] (M = Co, Ir, Rh) heavy fermion superconductors and the utility of high magnetic fields / J.L. Sarrao -- Quantum critical fluctuations in heavy fermion compounds / A. Schroeder ... [et al.] -- Ultrasonic measurements at the metamagnetic transition in URu[symbol] / A. Suslov ... [et al.] -- High field magnetization, longitudinal and transverse magnetoresistance of UirGe / S. Chang ... [et al.] -- High field magnetotransport in CeRh[symbol] heavy electron alloys / A.D. Christianson ... [et al.] -- dHvA measurements on La[symbol] where M = Rh, Ir, and Co / R.G. Goodrich ... [et al.] -- Anisotropic properties of single-crystalline CeNiGe[symbol] / M.H. Jung ... [et al.] -- "High-temperature" oscillations of bismuth conductivity in the ultra-quantum limit / V.B. Krasovitsky -- High-field magnetization in the Mott-Hubbard system (Y, Ca)VO[symbol] / H. Nakotte ... [et al.] -- Inelastic neutron scattering from anisotropic superconductors / P.S. Riseborough -- Ultrasonic and magnetization studies at the metamagnetic transition in UPt[symbol] / A. Suslov ... [et al.].

pt. III. Molecular conductors. Magnetic-field-induced superconductivity in layered organic molecular crystals with localized magnetic moments / O. Cepas, R.H. McKenzie and J. Merino -- Persistent currents at fields above 23T / N. Harrison -- High-magnetic-field tests for reduced dimensionality in organic superconductors: just how valid are the Mott-Ioffe Regel and Anderson criteria? / J. Singleton ... [et al.] -- Magnetic phase diagram in field induced superconductors [symbol] / S. Uji ... [et al.] -- The quantum Hall effect in quasi-one-dimensional organic conductors / V.M. Yakovenko -- NMR study of the antiferromagnetic to superconductor phase transition in (TMTSF)[symbol] / W. Yu ... [et al.] -- Contributed papers. The effects of pressure and magnetic field on the conductivity of FeCl[symbol] doped polyacetylene: the influence of scattering by low-energy excitations / A.N. Aleshin ... [et al.] -- High field phase diagram of the field-induced superconducting state of [symbol] / L. Balicas ... [et al.] -- Magnetic field-induced density wave transition in a [symbol]-phase organic conductor / D. Graf ... [et al.] -- Electron magnetic resonance Fermi surface imaging: applications to organic conductors and Sr[symbol] / S. Hill ... [et al.] -- High field magnetoconductivity of iodine doped helical polyacetylene / D.-S. Suh

... [et al.] -- pt. IV. Quantum solids and liquids. Viscosity of highly polarized very dilute  $^3\text{He}$  -  $^4\text{He}$  mixtures / H. Akimoto ... [et al.] -- Contributed papers. Investigation of multiple-spin exchange in 2D films of  $^3\text{He}$ : NMR studies / C. Parks, N.S. Sullivan and P. Stachowiak -- Order/disorder transitions of ortho-para hydrogen monolayers at low temperatures / N.S. Sullivan, K. Kim and V.B. Kokshenev -- pt. V. Superconductivity. Magnetotransport in cuprates and related compounds in high magnetic fields: evidence for preformed bipolarons / A.S. Alexandrov -- Spinless impurities in cuprates: local magnetism and Kondo effect in the normal and superconducting states / H. Alloul ... [et al.] -- Magnetic field and impurity effects in pseudogap state of cuprates / A.V. Balatsky -- The fascinating new physics of some old BCS superconductors / V. Barzykin -- Orbital magnetism in the cuprates / S. Chakravarty, H.-Y. Kee and C. Nayak -- Magnetism and superconductivity in  $\text{YBaCu}_3$  superconductors / P. Dai ... [et al.] -- Far-infrared Hall effect in normal state of YBCO / M. Grayson ... [et al.] -- Pseudogap state of high  $T_c$  cuprates: a predominant role of spin degrees of freedom / L. Krusin-Elbaum ... [et al.] -- Vortex magnetism in the high-temperatures superconductor  $\text{La}_2\text{CuO}_4$  / B. Lake ... [et al.] -- Magnetic field tuning of charge and spin order in the cuprate superconductors / A. Polkovnikov ... [et al.] -- Anomalous behavior of spin fluctuations in polycrystalline  $\text{NdBa}_2\text{Cu}_3\text{O}_7$  / A.P. Reyes ... [et al.] -- Contributed papers. Low-temperature normal-state Hall effect in high- $T_c$   $\text{Bi}_2\text{Te}_3$  revealed by 60 T magnetic fields / F.F. Balakirev ... [et al.] -- Tunneling spectroscopy of the electron-doped cuprate superconductor  $\text{Pr}_2\text{CuO}_7$  / A. Biswas ... [et al.] -- Magnetic field effects on  $T_c$  and the pseudogap onset temperature in cuprate superconductors / Q. Chen ... [et al.] -- Specific heat of  $\text{MgB}_2$  in magnetic fields: two energy gaps in the superconducting state / R.A. Fisher ... [et al.] -- Mixing of singlet and triplet pairing for surface superconductivity / L.P. Gor'kov and E.I. Rashba -- Mg as a main source for the diverse magnetotransport properties of  $\text{MgB}_2$  / K.H. Kim ... [et al.] -- Anomalous re-entrant superconductivity in  $\text{Sr}_2\text{RuO}_4$ : recovery of superconductivity with electric and magnetic field / D.C. Kim ... [et al.] -- The inhomogeneous magnetic fluctuations in the superconducting  $\text{La}_2\text{CuO}_4$  / P.L. Kuhns ... [et al.] -- Field-induced antiferromagnetism in the high-temperature superconductor  $\text{La}_2\text{CuO}_4$  / B. Lake ... [et al.] -- Magnetic tests to reveal triplet superconductivity in  $(\text{TMTSF})_2\text{X}$  and a possible breaking of a time reversal symmetry in  $\text{Sr}_2\text{RuO}_4$ , LBCO, and YBCO / A.G. Lebed -- Metal-insulator crossover in high  $T_c$  cuprates: gauge field theory versus experiments / P.A. Marchetti, Z.-B. Su and L. Yu -- Using radio frequency penetration depth to probe layered superconductors / C.H. Mielke -- Influence of electron irradiation defects on the transport properties of cuprates / F. Rullier-Albenque, R. Tourbot and H. Alloul -- Interplay between spin and crystal lattices in antiferromagnetic  $\text{YBaCu}_3$  / V. Sandu ... [et al.] -- Magnetotransport and the magnetic phase diagram of superconducting  $\text{ErNi}_2\text{P}_2\text{O}_{14}$  / G.M. Schmiedeshoff ... [et al.] -- High-field transport properties of  $\text{T}'\text{-Ln}_2\text{CuO}_4$  ( $\text{Ln} = \text{Nd}, \text{Pr}, \text{La}$ ) / T. Sekitani, N. Miura and M. Naito -- Percolative superconductivity in  $\text{MgB}_2$  / P.A. Sharma -- Vortex glass transition versus irreversibility line in superconducting BKBO / P. Szabo ... [et al.] -- Transport in  $\text{MgB}_2$  in high magnetic fields / P. Szabo ... [et al.] -- Evidence for the pair formation far above  $T_c$  in epitaxial  $\text{La}_2\text{CuO}_4$  thin films / J. Vanacken ... [et al.]

pt. VI. Magnetism and magnetic phenomena. Resistivity and penetration depth measurements of organic superconductors in high magnetic fields using a tunnel diode oscillator / C.C. Agosta ... [et al.] --

Theoretical overview of superconductivity in strontium ruthenate / D.F. Agterberg -- The millimetre-wave magneto-optical response of Sr [symbol] / A. Ardavan ... [et al.] -- Magnetic properties of heavy fermion superconductors CeRhIn[symbol] and Ce[symbol] / W. Bao ... [et al.] -- Spin correlations in magnetized haldane chains / C.L. Broholm -- Quantum oscillations, tunneling magnetoresistance and angular dependence of magnetization in Ca[symbol] / G. Cao -- Spin density wave order and fluctuations in (TMTSF)[symbol] at very high magnetic fields / W.G. Clark ... [et al.] -- A metamagnetic quantum critical endpoint in the Sr[symbol] / S.A. Grigera ... [et al.] -- High field NMR in strongly correlated low-dimensional fermionic systems / M. Horvati and C. Berthier -- Triplet superconductivity order parameter in an organic superconductor (TMTSF)[symbol] / A.G. Lebed -- Magnetism at the spatial limit / H. Manoharan -- Ferromagnetic and structural instabilities in Ca[symbol] / S. Nakatsuji and Y. Maeno -- Effects of parallel magnetic fields on the unusual metallic behavior in two dimensions / D. Popovic -- Geometrical frustration, and relevance for high field studies / A.P. Ramirez -- Contributed papers. Effects of in-plane strain on magnetism in LaMnO[symbol] thin films / K.H. Ahn and A.J. Millis -- Observation of quantum oscillations in four-layer BaRuO [symbol] / C.S. Alexander ... [et al.] -- Hopping conductivity in one-dimensional Ca[symbol] single crystal / J.M. Broto ... [et al.] -- Colossal effects in transition metal oxides caused by intrinsic inhomogeneities / J. Burgu ... [et al.] -- [symbol]Mn NMR and magnetization studies of La [symbol] / T. Caldwell ... [et al.] -- High field NMR studies of NaV [symbol] to 44.7 T / T. Caldwell ... [et al.] -- Triplet modes in a quantum spin liquid across the critical field / N. Cavadini ... [et al.] -- Crystal-field effects in the first-order valence transition in YbInCu [symbol] induced by external magnetic field / M. Dzero -- Tamm-type of states at the interface in La[symbol] (x=0.4, 0.55) superlattices / M. Dzero and L.P. Gor'kov -- Magnetic resonances observed in the high-field magneto-optical absorption of the quantum Ising ferromagnet LiHoF[symbol] / R.S. Edwards ... [et al.] -- Large effects of magnetic field on Josephson currents through antiferromagnetic barriers / L.P. Gor'kov and V.Z. Kresin -- Pressure dependent magnetization and magnetic ordering in rare earth ruthenates, Sm[symbol], Gd[symbol], Tb[symbol] and Nd[symbol] / R.P. Guertin and S. McCall -- Dynamical properties of field-induced ordered-states in  $S = 1/2$  one-dimensional quantum spin systems / N. Haga and S.-I. Suga -- Dynamical structure factors of the  $S = 1/2$  spin ladder systems with a diagonal interaction in the magnetization-plateau state / N. Haga and S. Suga -- D-strain, G-strain, and dipolar interactions in the Fe[symbol] and Mn[symbol] single molecule magnets: an EPR lineshape analysis / S. Hill ... [et al.] -- High pressure apparatus for transport properties study in high magnetic field / F. Honda ... [et al.] -- High-field Hall effect and band structure of half-metallic CrO[symbol] films / S.M. Watts, S. Von Molnár and M. Jaime -- Phase transitions in insulating vanadium oxide / A. Joshi, M. Ma and F.C. Zhang -- Magnetization curves of quasi-one-dimensional Haldane systems / A. Kawaguchi ... [et al.] -- Negative magnetoresistance in PbTe(Mn,Cr) / D. Khokhlov ... [et al.] -- New non-cooperative quantum phenomenon in a ferrimagnet with antiferromagnetic impurity / A.S. Lagutin ... [et al.] -- Ferromagnetic resonances in polycrystalline La[symbol] / R.A. Lewis ... [et al.] -- The study of the magnetic breakdown effect as a function of angle in the organic conductor K-(BEDT-TTF)[symbol] in high magnetic fields / I. Mihut ... [et al.] -- Electronic scattering and spin disorder in 3d-ferromagnets in the paraprocess regime / B. Raquet ... [et al.] -- Raman scattering study of temperature-and field-dependent magnetic polaron

formation in (Eu,Gd)O / H. Rho ... [et al.] -- Nuclear magnetism of helium-3 precipitates / V.A. Shvarts ... [et al.] -- Pulse-field experiments on the spin-lattice interaction in low-dimensional spin systems / B. Wolf ... [et al.] -- Electron-spin resonance evidence of the quantum spin gap in the LiCu[ $\text{SiO}_3$ ] / S.A. Zvyagin ... [et al.].  
pt. VII. Other aspects of studies in high magnetic fields. Electron correlation effects in biological molecules / D.L. Cox ... [et al.] -- Force-detected scanned probe magnetic resonance microscopy / P.C. Hammel -- Advances in megagauss field generation and application at ISSP / N. Miura ... [et al.] -- Contributed papers. Ultrafast coherent terahertz spectroscopy in high magnetic fields / S.A. Crooker and A.J. Taylor -- Recent advances in low temperature thermometry in high magnetic fields / E.C. Palm ... [et al.] -- Neutron scattering in magnetic fields up to 17 T / K. Prokes, P. Smeibidl and M. Meissner -- Ultrasonic spectrometers for condensed matter studies at very high magnetic fields / A. Suslov ... [et al.] -- High pressure techniques for low temperature studies in DC and pulsed magnetic fields / S.W. Tozer --  
pt. VIII. Instrumentation and facility development of high magnetic fields. The Dresden 100 T/10 ms project: a high magnetic field facility at an IR-FEL / M. Dörr ... [et al.] -- Development of advanced instrumentation for static and pulsed fields / A. Migliori ... [et al.] -- Megagauss cyclotron resonance in semiconductor nanostructures and diluted magnetic semiconductors / N. Miura, Y.H. Matsuda and T. Ikaida -- Feasibility studies for the implementation of nuclear magnetic resonance in a 25 T hybrid magnet / P.J.M. van Bentum ... [et al.].

---

Sommario/riassunto

This volume contains papers from the 4th Conference on Physical Phenomena at High Magnetic Fields, held in New Mexico in 2001. This conference brought together experts in scientific research areas where high magnetic fields play an important role, to discuss promising new directions in the area.

---