

A.V.Balatsky CV

Born: Pushkin, Leningrad Reg, USSR, Married, two children
Address: Nordita, Roslagstullsbacken 23, SE - 106 91 Stockholm, Sweden
Telephone: +46 8 5537 8707, FAX: +46 8 5537 8601
e-mail: balatsky@hotmail.com, balatsky@kth.se

Address: Los Alamos National Laboratory, Los Alamos, NM 87501
Email: avb@lanl.gov

Research Interests: DNA spectroscopy, Graphene, Superconductivity, superfluidity, quantum Hall effect, multiferroics, spintronics, noise spectroscopy.

Education and Training:

Undergraduate: Moscow Physical Technical Institute (1982)
Graduate: M.S., Physics, Moscow Physical Technical Institute (1984)
Ph.D. "Intrinsic Orbital Momentum in Superfluid He³," Landau Institute (1987)
Postdoctoral: Physics, UIUC, LANL (1989-1993)

Research and Professional Experience:

Director, Institute for Materials Science, Los Alamos 2014-present
Professor, Theoretical Physics, KTH, NORDITA, Stockholm 2011-present
Theory Thrust Partner, Center for Integrated Nanotechnologies, LANL 2005-2012
Research Professor of Physics, Boston College, Boston, MA 2011-present
Chief Scientist, Center for Integrated Nanotechnologies (CINT), joint LANL-Sandia BES funded nanocenter, LANL 2004- 2005
Team Leader, Strongly Correlated Electron Systems, T-11, LANL 2004- 2012
Fellowship of Japanese Society for Promotion of Science, ERATO project, Y. Tokura and N. Nagaosa (Tokyo University) 2003- 2003
Staff member, LANL, Los Alamos, NM 1994 – 2004
J.R. Oppenheimer Fellow with K. Bedell, LANL 1991– 1994
Physics Department, University of Illinois at Urbana-Champaign, Urbana, IL, Postdoctoral Associate Visiting Research Assistant Professor with D. Pines. 1989– 1991
Landau Institute for Theoretical Physics, Moscow, USSR. 1985– 1989

Scientific Honors:

AAAS Fellow, Nov 2011;

Ehrenfest Colloq, Leiden University, Feb2007.

Los Alamos Fellow, Oct 2005;

American Physical Society Fellow, November 2003;

Senior Fellowship of Japanese Society for Promotion of Science, March-April 2003;

Cyril Smith Scholar, Center for Materials Studies, LANL, 2000;

Los Alamos National Laboratory Achievement Award, September 1997; 2000;

J. Robert Oppenheimer fellowship at the Los Alamos National Laboratory 1991-1994;

Board Memberships

Member of advisory boards and scientific advisory committees both for conferences and Panel reviews.

Member of Review Committee of Canadian Institute for Fundamental Research (CIFAR), April 2007.

Chair, Panel on Mechanisms of Unconventional Superconductors, DOE BES workshop on

Superconductivity, May 2006. LANL ER committee member, 2005, 2007. Scientific Secretary,

Spectroscopies of Novel Superconductors, 2007- present. Member of the Advisory board for Asia Pacific Center for Theoretical Physics, 2009-2012.

Organizer and co-organizer of numerous conferences and symposia including invited symposia at American Physical Society (Novel DNA sequencing methods, APS 2013, Kondo Effect in graphene, 2010, Impurity Effects in Superconductors, 2002). Program Committee, Stripes, Sicily, Italy, 2008. Organizer: Dirac Materials, June 2014, Nordita workshop, Stockholm; Second Century of Superconductivity, August 2013, Nordita, Stockholm; Modern Computational Methods in Condensed Matter and Nuclear Physics, Sept 2014, Nordita, Stockholm.

Collaborators and Co-editors: (last 48 months) S. Trugman (LANL), D. Arovas (UC San Diego), P. Littlewood (Cambridge University), A. H. MacDonald (UT Austin), J. Sauls (Northwestern), J.C. Davis (Cornell University), E. Abrahams (Rutgers University), S. Das Sarma (U Maryland), Y. Joglekar (IUPUI), H. Manoharan (Stanford), J. Fransson (Uppsala Univ), T. Das (Los Alamos), J.X. Zhu (Los Alamos), A. Black-Schaffer (Uppsala U).

Graduate Students (last 5 years) H. Dahal BC summer student, summer 2006. Rudro Biswas, Harvard University, Aug 2008-Sept 2009; R. Hembree, Hampden Sydney College, VA, June- Aug 2008; Tanwa Apronthip Washington Univ, St Louis, June-Aug 2008; C. Triola, College of W&M, Summer 2003, 2014; S. Banerjee, KTH/Nordita, Sept 2014-present.

Postdoctoral Fellows (last 7 years) J.X. Zhu, PD 2001-2004 (LANL), D. Morr, PD 2000-2002, UCI Assoc. Prof; Y. Joglekar, PD 2002-2005, IUPUI, Asst. Prof., Z. Nussinov, PD 2002-2005, Washington

Univ, St Louis, Assoc, Prof., I. Grigorenko, PD 2006-2008, LANL, PD. J. Fransson, PD 2006-2008, Uppsala University, Associate Professor. H. Dahal- PD summer 2008-2010, APS Editor, J.J. Su- 2008-2010, PD Stanford U., J. Haraldsen 2009-2011, PD at Los Alamos, T. Das, 2009-2011, PD at Los Alamos, H. She- 2011-2013, PD at Cornell, S. Borysov 2012-present KTH PD. F. Mancarella 2012-present, PD KTH. K. Zakharchenko-2013-present PD Nordita. T. Ahmed – 2012-present Los Alamos.

Invited presentations – 150. Selected Invited Presentations: “Inelastic Tunneling Spectroscopy”, Aspen Winter Conference 2006; “Role of Impurities in Supersolids”, KITP, Feb 2006; “Electron-lattice interactions in highTc superconductors”, May 2007, Spectroscopies of Novel Superconductors, June 2007; ; “Bosonic Modes in Superconductors”, Invited Talk, APS March meeting 2007, Denver; “Electronic Nanoscale Inhomogeneity and Dirac Materials”, Ehrenfest colloquium, Leiden, Feb 2007; “Dirac Materials”, Nordita colloquium, Jan 2008; “Inhomogeneity in Correlated Materials”, Asia Pacific Center for Theoretical Physics, S. Korea, Jan 2009; “Supersolid He4- a case for quantum glass”, ULT 2008, London, Aug. 2008; “Dirac Materials”, KITP, UC Santa Barbara, May 2009; “Charge and Spin stripes in FeAS superconductors”, May 2010 SNS, Shanghai; “Dirac Materials”, Zhong-Guan-Cun Forum, 187th Lecture, IoP, Beijing, May 2010; “DNA electronics”, Kyoto Symposium on Single Molecule Analysis, ISSMA 2011, Japan, Jan 2011; “Dirac Materials” Linneas Colloq Gothenburg, Oct 2012, Aarhus U May 2013, Technical U Dresden, April 2013.

Graduate and Post-doctoral Advisors: M. Feigelman (Landau Inst), thesis advisor G.E. Volovik, Landau Institute for Theoretical Physics, Moscow, Russia. PD advisors: D. Pines, UIUC; K. Bedell, Boston College

Publications: Articles in Refereed Journals (published) > 260, h – 43, citations ~ 8200, Nature-6, Science-6, PNAS - 2, PRL’s - 50

Influential papers

Katsura, Nagaosa, Balatsky (2005) - 800 cits
Balatsky, Vekhter Zhu (2006) - 380 cits
Wehling et.al, (2007) - 120 cits
J. Lee, et al, (2006) - 220 cits
Balatsky, Salkola, Rosengren, (1995) 210 cits
Monthoux, Balatsky, Pines (1991) 380 cits

Selected Publications 2006-2013

1. Das, Tanmoy; Balatsky, A. V., Engineering three-dimensional topological insulators in Rashba-type spin-orbit coupled heterostructures NATURE COMMUNICATIONS Volume: 4 , Article 1972 DOI: 10.1038/ncomms2972 Published: JUN 2013
2. Hamidian Mohammad H.; et al, “How Kondo-holes create intense nanoscale heavy-fermion Hybridization disorder”, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA Volume: 108 Issue: 45 Pages: 18233-18237, (2011)
3. Biswas, R. and Balatsky A. “Scattering from surface step edge in strong topological insulators, “ PHYSICAL REVIEW B 83, p 075439, (2011)
4. 3. Biswas R.R., Balatsky AV, “Impurity-induced states on the surface of three-dimensional topological insulators”, PHYSICAL REVIEW B 81, p 233405, (2010).
5. 4. Wehling, T.O.; Balatsky, AV; Katsnelson, MI; Lichtenstein, AI; Scharnberg, K; Wiesendanger, R, “Local electronic signatures of impurity states in graphene “, PHYSICAL REVIEW B; v.75, no.12, p.125425, (2007)
6. Electronic Fingerprints of DNA Bases on Graphene
Author(s): Ahmed Towfiq; Kilina Svetlana; Das Tanmoy; et al.
Source: NANO LETTERS Volume: 12 Issue: 2 Pages: 927-931 (2012)

7. A.V. Balatsky I. Vekhter and J. X Zhu, "Impurity Effects in Unconventional Superconductors", *Rev. Mod. Phys.*, v 78, 373, (2006).
8. M.M. Qazilbash, M. Brehm, P.C. Byung-GyuChae, P.C. Ho, G.O. Andreev, Bong-jun Kim, Sun Jin Yun, A.V. Balatsky; M.B. Maple ; F. Keilmann, "Mott transition in VO₂ revealed by infrared spectroscopy and nano-imaging," *Science*; Dec; vol.318, p.1750-3, (2007).
9. P. Philips and A.V. Balatsky, "Cracking the Supersolid", *Science* 316, 1435, (2007).
10. H. Katsura, A. V. Balatsky, and N. Nagaosa,"Dynamical Magnetoelectric Coupling in Helical Magnets," *Phys. Rev. Lett.***98**, 027203 (2007) .
11. Scanning Tunneling Microscopy of DNA-Wrapped Carbon Nanotubes Author(s): Yarotski, Dzmitry A.; Kilina, Svetlana V.; Talin, A. Alec; et al. Source: NANO LETTERS Volume: 9 Issue: 1 Pages: 12-17 DOI: 10.1021/nl801455t Published: JAN 2009.
12. Dirac materials, By: Wehling, T. O.; Black-Schaffer, A. M.; Balatsky, A. V. Source: ADVANCES IN PHYSICS Volume: 63 Issue: 1 Pages: 1-76 Published: 2014

Recent Grants:

- 2013-present ERC Dirac Materials, DM 321013, ~ 1.7MEuro.
- 2013-present KAW foundation, Sweden, Functional Dirac Materials, 32MSEK.
- 2013-present US DOE BES, Modeling of Novel Materials, 380 K per year
- 2009-2011, Co-PI, UC office of President Project "Carbon Based Materials", 420 K per year.
- 2006-2011, Co PI with Yishai Manassen (Ben Gurion Univ), Y. Ymry (Weitzman), US-Israel Binational Foundation, Noise Spectroscopy and Single Spin Detection, 30K per year
- 2009-2011, Co-PI, LANL LDRD-ER, Solid Helium-4: A Supersolid or Quantum Glass? 310K per year,
- 2005-2008, PI, LANL LDRD –DR, Nanoscale Fluctuations in Multifunctional Materials, 1200K per year.
- 2005-2008, PI, LANL LDRD-ER, Visualization Applied to Electronic Properties of Novel Superconductors, 290K per year

Balatsky research statement

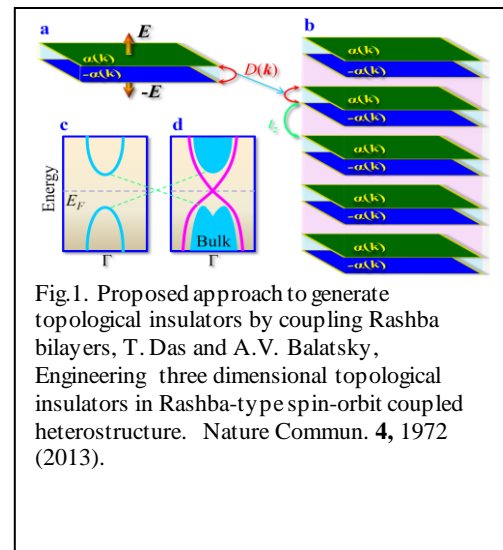
I plan to focus on two main directions for my research, while taking advantage of interdisciplinary nature of the research offered by Department and Materials Institute.

1) Emergent behavior of correlated materials.

There has been remarkable three decades of discovery of complex inorganic, organic (and biological), electronic (magnetic, photonic...) materials with unexpected functions and performance. Examples include (superconducting oxides and pnictides, MgB₂, GMR, CMR, plastic conductors, nanotubes, graphene, ... Last decade is also notable for a similarly remarkable explosion of experimental probes of structure and function for multiple spatial and temporal scales, including scanning probe microscopies, focused x-rays, ARPES, pump probe, time resolved crystallography, EXAFS, ... These data and probes increasingly reveal novel functionalities that exist at several distinct scales. Our understanding of the origins and functional consequences of this multiscale richness is very limited.

I will identify model systems with sufficiently rich energy landscapes for the above emergent features. My immediate focus is on a) Dirac materials, b) mesoscale structures, c) emergent phenomena near quantum critical points.

- a) *Dirac Materials.* A wide range of materials, like d-wave superconductors, graphene, and topological insulators, share a fundamental similarity: their low-energy fermionic excitations behave as massless Dirac particles. This emergent behavior of Dirac fermions in condensed matter systems defines the unifying framework for a class of materials we call Dirac materials. I would like to explore possibilities to generate novel Dirac materials taking advantage of the engineering and synthesis capabilities of modern materials and interfaces that came online in the last 5-10 years. Engineered nanostructures would allow us to create and control novel Dirac states.



Time resolved and pumped probes of Dirac materials. Recent advances in manipulation of light, pumped and time resolved probes of correlated materials and more specifically Dirac Materials open up another venue for engineered states where we create the novel states in the transients as a result of energy pumped into electron subsystem. Another possibility is the novel topological states in the steady nonequilibrium state that emerge as a result of steady temporal periodic perturbations. I am looking at possibility to create steady excited states as a result of perturbation of particles in Dirac nodes. Hope is to generate novel correlated states like ferromagnetism and superconductivity in the nonequilibrium configuration. (T. Wehling et al, Advances in Physics, v 63, p 1(2014), Nature Commun. 4, 1972 (2013).)

- b) *Understanding and Controlling Collective Phenomena in Mesoscale Structures.*

The field of complex materials stands at a crossroads similar to semiconductor S&T decades ago when basic understanding of material properties and fabrication procedures were in place but

before the principles required to achieve desired functionality had been established. As a result, new materials discovery has relied on accidental findings driven by advances in synthetic techniques rather than on “rational design” of the material structure. Functionality in materials is controlled by competing interactions and closes multiple energy minima that determine ground states. Recently the new paradigm in understanding and controlling nearly degenerate energy minima has emerged: epitaxial superlattices. In these hybrid 2D or 3D structures two or more materials with a particular set of competing orders are interfaced in order to tease apart the multiple degrees of freedom involved in the collective behavior. The system can be moved from one minimum to another either by coherent excitations or by external control parameters like fields, strain and temperature. The interfaces often exhibit novel properties that cannot be obtained in the individual constituents. This lego-like materials layers offer a new approach to materials design, Fig.1. With the great advancements in observations our understanding of the origin and functional consequences of these multiscale structures is very limited.

The overarching goal of this research direction is to build a predictive theory of the competition between collective states of materials like superconductivity, magnetism and lattice that often

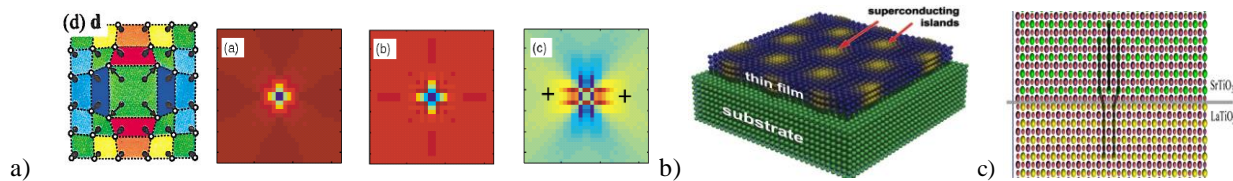


Fig. 2 a) Strain effects on the local superconducting properties. Local nanoscale defect induces strain that leads to modifications of electronic states at mesoscale [J.X. Zhu and A.V. Balatsky et al., Phys. Rev. Lett. 91, 057004 (2003)]. b) Changes in electronic states at interface between the substrate and soft SC film. Strain induces modulation of superconducting gap in the film [Andreas Glatz et al Phys. Rev. B 84, 024508 (2011)]. c) Preliminary calculations on the unrelaxed interfacial misfit dislocation at SrTiO₃/LaTiO₃ interfaces by means of connecting 20_aSrTiO₃/19_aLaTiO₃ unit cells to introduce one misfit dislocation at the middle. Large green and yellow atoms are Sr and La respectively, middle blue atoms are Ti, and small red atoms are Oxygen. For the proposed work, we will additionally calculate the strained interface structures as a result of extrinsic defects, with increasing structural complexity, starting with point defects to dislocation lines and then to intersections between two non-parallel dislocations. Shown is the most energetically favorable interface habit plane of the SrTiO₃/LaTiO₃ interface, in which the lattice mismatch is 0.4% and the intrinsic dislocations are spaced 100 nm apart. [Beyerlein et al, unpublished]

define nano to mesoscale collective orders. We will develop the forefront condensed matter theory to establish fundamental relationship between mesoscale structure and collective behavior of the complex heterostructures including superconductors, magnetic and ferroelectric states and Dirac Materials like topological insulators and graphene.

I will utilize combined first-principles and effective modeling approach with the focus on methods that couple strain and interface electronic and magnetic correlations, Fig.2. The growing list of new states observed at interfaces and lack of theoretical understanding of the emergent states observed at interfaces point to exciting opportunities for theory and modeling with significant potential for new discoveries.

c) *Spatially modulated states near Quantum Critical Points.* Spatial modulation in spin and/or charge degrees of freedom appears to be a ubiquitous emergent property of strongly correlated electron systems (SCES). It manifests itself in a wide variety of states. There is a growing appreciation in the research community that this theme in SCES may be driven by very common underlying principles; however, such a general framework of understanding fundamental origins of

spatially modulated states is yet to be formulated. Spatial modulation may result from an external perturbation or from an intrinsic response of the electronically correlated state. The former can be achieved via application of high pressure, strain, magnetic and/or electric fields, as well as doping. At a basic level, the latter (intrinsic) effects are the consequence of a trade-off between potential and kinetic energies in coupled spin, charge and lattice degrees of freedom. Stripe phases in High Temperature Superconducting (HTS) compounds are one realization of such competition. Other examples include Colossal Magneto-Resistance (CMR) compound, or at Metal-Insulator Transition (MIT). At a quantum critical point (QCP), a zero-temperature boundary between two competing ground states, may serve as an example of intrinsic inhomogeneity.

Excitations above each of the ground states are different, such as spin waves in magnetically ordered state and phase fluctuations of a superconducting state. As the system is driven to QCP, due to critical slowing down of fluctuations, different parts of the sample will fall into one of the two competing phases. This is our hypothesis of how intrinsic inhomogeneity develops spontaneously near QCP, which needs to be tested experimentally, Fig.3. As an alternative to purely intrinsic inhomogeneity, slightest variation of stoichiometry, strain acquired during sample growth, impurities, and defect can drive the system locally into one or another ground state, producing phase separation on a scale determined by a complex interplay between the spatial distribution of the impurities and defects and the spatial range of competing charge, spin, and lattice interactions.

I plan to explore the role and relevance of various scenarios for developing nanoscale inhomogeneity in materials.

2) Extreme Quantum Limits. I will focus on the lowest, extreme limit of time and length scale resolution that determines the response of material or system of interest.

- a) *Noise spectroscopy.* I will be looking at noise signatures in small particles and small ensembles as a way to understand electron and spin dynamics. My work on the spatially resolved spin noise offers a unique glimpse into dynamics of a single spin that could be used as a platform for quantum computing. As a single spin limit is approached we expect new physics be revealed by means of noise instead of conventional dissipative measurements. One interesting quantity is the higher order (4th order) spin correlations that can elucidate the coupling to the bath and nuclear spin. For example one can use the noise to ask questions about nontrivial fluctuations in the cold atom traps. Another example is

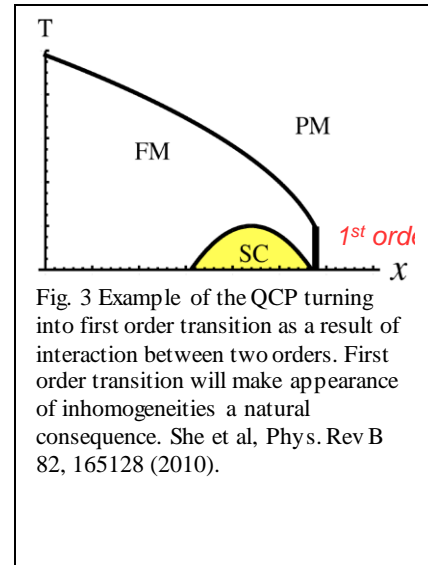


Fig. 3 Example of the QCP turning into first order transition as a result of interaction between two orders. First order transition will make appearance of inhomogeneities a natural consequence. She et al, Phys. Rev B 82, 165128 (2010).

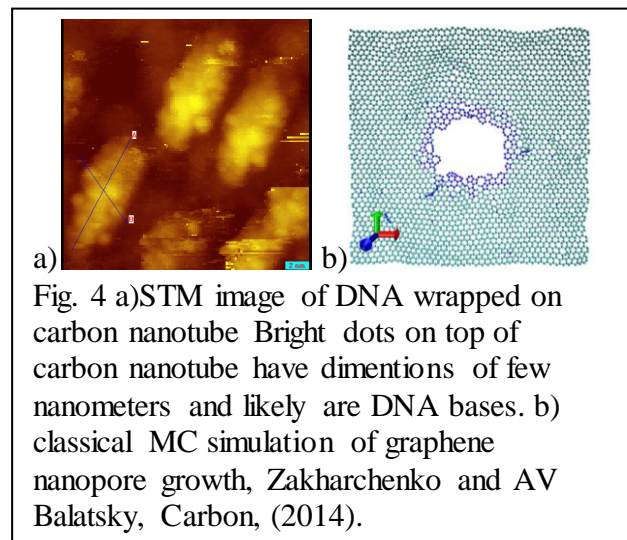


Fig. 4 a) STM image of DNA wrapped on carbon nanotube. Bright dots on top of carbon nanotube have dimensions of few nanometers and likely are DNA bases. b) classical MC simulation of graphene nanopore growth, Zakharchenko and AV Balatsky, Carbon, (2014).

the influence of hyperfine interactions on electron spin dynamics. My work with Manassen (A.V. Balatsky et al, *Advances in Physics*, v 61, 117 (2012)) and Crooker on spin noise is a good platform for this research.

- b) *Spatially resolved DNA imaging*. This is the effort that I would like to pursue in contact with the biological and/or medical community. At Los Alamos I was a PI on the combined theory-experiment project that led to one of the first, if not the first experimental image of DNA on a single carbon nanotube (Yarotski, Dzmityr A, et al, *Nano Lett.* v 9, 12, (2009)). My most recent work on the spectroscopy of a single base in DNA offers an opportunity to work at the limit of “single quantum” of biological information. Local scanned probes allow us now to detect particular bases of DNA and possibly sequence DNA without amplification. This work is not meant to come up with the fast sequencing tool but rather to use extreme sensitivity of local electronic probes to detect single bases one at a time. I plan to continue to work on using graphene nanopores for investigation of DNA translocation and sequencing (T. Ahmed et al, *Electronic Fingerprints of DNA Bases on Graphene*, *Nano Lett.* v12, 927(2012)), Fig.4.
- c) *Graphene Nanopore and Water Desalination*. I plan to investigate the molecular and ionic transport through graphene nanopore. There are qualities that make nanoporous graphene a good candidate for membranes for water desalination and arsenic removal. This is a nascent project that organically builds on our understanding of the graphene pore regrowth and functionalization. I will develop realistic MD and DFT calculations that would allow us to model the transport through graphene nanopore. I am also would be interested in exploring the experimental connections in this field as well. (K. Zakahrchenko, AVB, *CARBON*, 80 (2014) 12–18)

Primary Published or Creative Work

1. Author(s): BALATSKY, AV; VINOKUR, VM, Title: COMMENSURATE INCOMMENSURATE TRANSITION IN ONE-DIMENSIONAL DISORDERED-SYSTEMS. Source: SOLID STATE COMMUNICATIONS Volume: 52 Issue: 10 Pages: 847-850 DOI: 10.1016/0038-1098(84)90254-0 Published: 1984
2. Author(s): BALATSKY, AV; BURLACHKOV, LI; GORKOV, LP, Title: MAGNETIC-PROPERTIES OF ANISOTROPIC SUPERCONDUCTORS OF THE 2ND TYPE, Source: ZHURNAL EKSPERIMENTALNOI I TEORETICHESKOI FIZIKI Volume: 90 Issue: 4 Pages: 1478-1486 Published: APR 1986
Times Cited: 38 (from Web of Science)
3. Author(s): BALATSKY, AV; VOLOVIK, GE; KONYSHEV, VA, Title: THE CHIRAL ANOMALY IN SUPERFLUID HE-3-A, Author(s): BALATSKY, AV; VOLOVIK, GE; KONYSHEV, VA Source: ZHURNAL EKSPERIMENTALNOI I TEORETICHESKOI FIZIKI Volume: 90 Issue: 6 Pages: 2038-2056 Published: JUN 1986, Times Cited: 21 (from Web of Science)
4. Author(s): BALATSKY, AV; KONYSHEV, VA, Title: ANOMALOUS SUPERFLUID CURRENT IN HE-3-A AND THE INDEX THEOREM, Source: ZHURNAL EKSPERIMENTALNOI I TEORETICHESKOI FIZIKI Volume: 92 Issue: 3 Pages: 841-858 Published: MAR 1987
Times Cited: 4 (from Web of Science)
5. Author(s): BALATSKY, AV, Title: MICROSCOPICALLY DERIVED WESS-ZUMINO ACTION FOR HE-3-A, Author(s): BALATSKY, AV Source: PHYSICS LETTERS A Volume: 123 Issue: 1 Pages: 27-30 DOI: 10.1016/0375-9601(87)90755-9 Published: JUL 13 1987 Times Cited: 4 (from Web of Science)
6. Author(s): BALATSKY, AV; MATVEENKO, SI, Title: FERMIONS IN ANTIFERROMAGNETS AND PHASE-TRANSITION Source: PHYSICA C Volume: 161 Issue: 2 Pages: 136-140 DOI: 10.1016/0921-4534(89)90121-4 Published: NOV 1 1989 Times Cited: 2 (from Web of Science)
7. Author(s): BALATSKY, AV, Title: PEIERLS INSTABILITY AND CHIRAL-SYMMETRY BREAKING IN SOLIDS WITH RELATIVISTIC FERMIONS, Source: PHYSICAL REVIEW LETTERS Volume: 64 Issue: 17 Pages: 2078-2081 DOI: 10.1103/PhysRevLett.64.2078 Published: APR 23 1990 Times Cited: 4 (from Web of Science)
8. Author(s): BALATSKY, AV, Title: NATURE OF PAIRING IN ANTIFERROMAGNETIC METALS, Source: PHYSICAL REVIEW B Volume: 41 Issue: 16 Pages: 11612-11614 DOI: 10.1103/PhysRevB.41.11612 Published: JUN 1 1990 Times Cited: 0 (from Web of Science)
9. Author(s): LOSS, D; GOLDBART, P; BALATSKY, AV, Title: BERRYS PHASE AND PERSISTENT CHARGE AND SPIN CURRENTS IN TEXTURED MESOSCOPIC RINGS Source: PHYSICAL REVIEW LETTERS Volume: 65 Issue: 13 Pages: 1655-1658 DOI: 10.1103/PhysRevLett.65.1655 Published: SEP 24 1990 Times Cited: 180 (from Web of Science)
10. Author(s): BALATSKY, AV; MATVEENKO, SI, Title: FERMIONS IN ANTIFERROMAGNETS AND PHASE-TRANSITION, Source: ZHURNAL EKSPERIMENTALNOI I TEORETICHESKOI

FIZIKI Volume: 98 Issue: 4 Pages: 1336-1344 Published: OCT 1990 Times Cited: 0 (from Web of Science)

11. Author(s): BALATSKY, AV, Title: HYDRODYNAMICS OF AN ANTIFERROMAGNET WITH FERMIONS, Source: PHYSICAL REVIEW B Volume: 42 Issue: 13 Pages: 8103-8109, DOI:10.1103/PhysRevB.42.8103 Part: A Published: NOV 1 1990 Times Cited: 6 (from Web of Science)

12. Author(s): BALATSKY, AV, Title: RELATION BETWEEN THE CHIRAL-SPIN-LIQUID STATE AND THE CHIRAL SU(2) WESS-ZUMINO-WITTEN MODEL, Source: PHYSICAL REVIEW B Volume: 43 Issue: 1 Pages: 1257-1259 DOI: 10.1103/PhysRevB.43.1257 Part: B Published: JAN 1 1991, Times Cited: 7 (from Web of Science)

13. Author(s): BALATSKY, A, Title: SPIN RIGIDITY AND LANDAU-GINZBURG THEORY OF CHIRAL-SPIN-LIQUID PHASE, Source: PHYSICAL REVIEW LETTERS Volume: 66 Issue: 6 Pages: 814-817 DOI: 10.1103/PhysRevLett.66.814 Published: FEB 11 1991, Times Cited: 1 (from Web of Science)

14. Author(s): BALATSKY, A; KALMEYER, V, Title: SINGLET-PAIR SUPERCONDUCTIVITY IN THE 2-COMPONENT ANYON GAS, Source: PHYSICAL REVIEW B Volume: 43 Issue: 7 Pages: 6228-6231 DOI: 10.1103/PhysRevB.43.6228 Part: B Published: MAR 1 1991 Times Cited: 11 (from Web of Science)

15. Author(s): BALATSKY, A; CHUBUKOV, A, Title: ON THE EXCITATIONS IN A $S = 1$ LINEAR-CHAIN HEISENBERG-ANTIFERROMAGNET WITH $S = 1/2$ IMPURITIES, Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 3 Issue: 10 Pages: 1359-1362 DOI: 10.1088/0953-8984/3/10/013 Published: MAR 11 1991 Times Cited: 0 (from Web of Science)

16. Author(s): BALATSKY, A; STONE, M, Title: VERTEX OPERATORS AND SPINON EDGE EXCITATIONS IN THE SPIN-SINGLET QUANTUM HALL-EFFECT, Source: PHYSICAL REVIEW B Volume: 43 Issue: 10 Pages: 8038-8043 DOI: 10.1103/PhysRevB.43.8038 Part: A Published: APR 1 1991 Times Cited: 16 (from Web of Science)

17. Author(s): BALATSKY, A; FRADKIN, E, Title: SINGLET QUANTUM HALL-EFFECT AND CHERN-SIMONS THEORIES, Source: PHYSICAL REVIEW B Volume: 43 Issue: 13 Pages: 10622-10634 DOI: 10.1103/PhysRevB.43.10622 Part: A Published: MAY 1 1991 Times Cited: 20 (from Web of Science)

18. Author(s): MONTHOUX, P; BALATSKY, AV; PINES, D, Title: TOWARD A THEORY OF HIGH-TEMPERATURE SUPERCONDUCTIVITY IN THE ANTIFERROMAGNETICALLY CORRELATED CUPRATE OXIDES, Source: PHYSICAL REVIEW LETTERS Volume: 67 Issue: 24 Pages: 3448-3451 DOI: 10.1103/PhysRevLett.67.3448 Published: DEC 9 1991 Times Cited: 379 (from Web of Science)

19. Author(s): BALATSKY, A, Title: SPIN SINGLET QUANTUM HALL-EFFECT AND NONABELIAN LANDAU-GINZBURG THEORY, Conference: ADRIATICO RESEARCH CONF AND MINIWORKSHOP ON STRONGLY CORRELATED ELECTRON SYSTEMS III Location: TRIESTE, ITALY Date: JUL 08-AUG 02, 1991 Sponsor(s): INT CTR THEORET PHYS; CNR; SCUOLA INT SUPER STUDI AVANZATI

Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 6 Issue: 5-6
Pages: 765-788 DOI: 10.1142/S0217979292000463 Published: MAR 1992
Times Cited: 1 (from Web of Science)

*20. Author(s): BALATSKY, A; ABRAHAMS, E, Title: NEW CLASS OF SINGLET
SUPERCONDUCTORS WHICH BREAK TIME-REVERSAL AND PARITY, Source: PHYSICAL
REVIEW B Volume: 45 Issue: 22 Pages: 13125-13128 DOI: 10.1103/PhysRevB.45.13125
Published: JUN 1 1992
Times Cited: 128 (from Web of Science)

21. Author(s): MONTHOUX, P; BALATSKY, AV; PINES, D, Title: WEAK-COUPPLING THEORY
OF HIGH-TEMPERATURE SUPERCONDUCTIVITY IN THE ANTIFERROMAGNETICALLY
CORRELATED COPPER OXIDES, Source: PHYSICAL REVIEW B Volume: 46 Issue: 22
Pages: 14803-14817 DOI: 10.1103/PhysRevB.46.14803 Published: DEC 1 1992
Times Cited: 316 (from Web of Science)

22. Author(s): ABRAHAMS, E; BALATSKY, A; SCHRIEFFER, JR; et al., Title: INTERACTIONS
FOR ODD-OMEGA GAP SINGLET SUPERCONDUCTORS, Source: PHYSICAL REVIEW B
Volume: 47 Issue: 1 Pages: 513-514 DOI: 10.1103/PhysRevB.47.513 Published: JAN 1
1993
Times Cited: 39 (from Web of Science)

23. Author(s): BALATSKY, AV; ALTSHULER, BL, Title: PERSISTENT SPIN AND MASS
CURRENTS AND AHARONOV-CASHER EFFECT, Source: PHYSICAL REVIEW LETTERS
Volume: 70 Issue: 11 Pages: 1678-1681 DOI: 10.1103/PhysRevLett.70.1678 Published:
MAR 15 1993
Times Cited: 93 (from Web of Science)

24. Author(s): BALATSKY, AV; BONCA, J, Title: EVEN-FREQUENCY AND ODD-FREQUENCY
PAIRING CORRELATIONS IN THE ONE-DIMENSIONAL T-J-H MODEL - A COMPARATIVE-
STUDY Source: PHYSICAL REVIEW B Volume: 48 Issue: 10 Pages: 7445-7449 DOI:
10.1103/PhysRevB.48.7445 Published: SEP 1 1993
Times Cited: 11 (from Web of Science)

25. Author(s): BALATSKY, AV, Title: SUPERCONDUCTING INSTABILITY IN A NON-FERMI
LIQUID - SCALING APPROACH, Source: PHILOSOPHICAL MAGAZINE LETTERS Volume:
68 Issue: 4 Pages: 251-256 DOI: 10.1080/09500839308242421 Published: OCT 1993
Times Cited: 18 (from Web of Science)

26. Author(s): BONCA, J; BALATSKY, AV, Title: COMPOSITE-OPERATORS FOR A BCS
SUPERCONDUCTOR, Source: JETP LETTERS Volume: 59 Issue: 3 Pages: 216-218
Published: FEB 10 1994
Times Cited: 4 (from Web of Science)

27. Author(s): SCHRIEFFER, JR; BALATSKY, AV; ABRAHAMS, E; et al., Title: ODD
FREQUENCY PAIRING IN SUPERCONDUCTORS, Source: JOURNAL OF
SUPERCONDUCTIVITY Volume: 7 Issue: 3 Pages: 501-504 DOI: 10.1007/BF00728448
Published: JUN 1994
Times Cited: 6 (from Web of Science)

28. Author(s): BALATSKY, AV; MONTHOUX, P; PINES, D, Title: INFLUENCE OF MAGNETIC
IMPERFECTIONS ON THE LOW-TEMPERATURE PROPERTIES OF D-WAVE

SUPERCONDUCTORS, Source: PHYSICAL REVIEW B Volume: 50 Issue: 1 Pages: 582-585 DOI: 10.1103/PhysRevB.50.582 Published: JUL 1 1994
Times Cited: 6 (from Web of Science)

29. Author(s): BALATSKY, AV; ROSENGREN, A; ALTSHULER, BL, Title: IMPURITIES AND QUASI-ONE-DIMENSIONAL TRANSPORT IN A D-WAVE SUPERCONDUCTOR, Source: PHYSICAL REVIEW LETTERS Volume: 73 Issue: 5 Pages: 720-723 DOI: 10.1103/PhysRevLett.73.720 Published: AUG 1 1994
Times Cited: 40 (from Web of Science)

30. Author(s): BALATSKY, AV; ABRAHAMS, E, Title: ODD-TIME MAGNETIC CORRELATIONS AND CHIRAL SPIN NEMATICS, Source: PHYSICAL REVIEW LETTERS Volume: 74 Issue: 6 Pages: 1004-1007 DOI: 10.1103/PhysRevLett.74.1004 Published: FEB 6 1995
Times Cited: 5 (from Web of Science)

*31. Author(s): BALATSKY, AV; SALKOLA, MI; ROSENGREN, A, Title: IMPURITY-INDUCED VIRTUAL BOUND-STATES IN D-WAVE SUPERCONDUCTORS, Source: PHYSICAL REVIEW B Volume: 51 Issue: 21 Pages: 15547-15551 DOI: 10.1103/PhysRevB.51.15547
Published: JUN 1 1995
Times Cited: 209 (from Web of Science)

32. Author(s): SALKOLA, MI; BALATSKY, AV, Title: SUPERCONDUCTING FLUCTUATIONS IN ONE-DIMENSIONAL MULTIBAND MODELS, Source: PHYSICAL REVIEW B Volume: 51 Issue: 21 Pages: 15267-15273 DOI: 10.1103/PhysRevB.51.15267 Published: JUN 1 1995
Times Cited: 1 (from Web of Science)

33. Author(s): ABRAHAMS, E; BALATSKY, A; SCALAPINO, DJ; et al., Title: PROPERTIES OF ODD-GAP SUPERCONDUCTORS, Source: PHYSICAL REVIEW B Volume: 52 Issue: 2 Pages: 1271-1278 DOI: 10.1103/PhysRevB.52.1271 Published: JUL 1 1995
Times Cited: 71 (from Web of Science)

34. Author(s): BALATSKY, AV; MATVEENKO, SI, Title: DYNAMICAL PROPERTIES OF QUANTUM HALL EDGE STATES, Source: PHYSICAL REVIEW B Volume: 52 Issue: 12 Pages: R8676-R8679 Published: SEP 15 1995
Times Cited: 3 (from Web of Science)

35. Author(s): Abrahams, E; Balatsky, A; Schrieffer, JR; et al., Title: Interactions for odd-omega gap singlet superconductors (vol 47, pg 513, 1993), Source: PHYSICAL REVIEW B Volume: 52 Issue: 21 Pages: 15649-15649 DOI: 10.1103/PhysRevB.52.15649 Published: DEC 1 1995
Times Cited: 1 (from Web of Science)

36. Author(s): Balatsky, AV; Salkola, MI, Title: Impurity states and the absence of quasiparticle localization in disordered d-wave superconductors, Source: PHYSICAL REVIEW LETTERS Volume: 76 Issue: 13 Pages: 2386-2389 DOI: 10.1103/PhysRevLett.76.2386 Published: MAR 25 1996
Times Cited: 63 (from Web of Science)

37. Author(s): Salkola, MI; Balatsky, AV; Scalapino, DJ, Title: Theory of scanning tunneling microscopy probe of impurity states in a D-wave superconductor, Source: PHYSICAL REVIEW LETTERS Volume: 77 Issue: 9 Pages: 1841-1844 DOI: 10.1103/PhysRevLett.77.1841
Published: AUG 26 1996

Times Cited: 149 (from Web of Science)

38. Author(s): Salkola, MI; Balatsky, AV; Schrieffer, JR, Title: Spectral properties of quasiparticle excitations induced by magnetic moments in superconductors

Source: PHYSICAL REVIEW B Volume: 55 Issue: 18 Pages: 12648-12661 DOI: 10.1103/PhysRevB.55.12648 Published: MAY 1 1997

Times Cited: 117 (from Web of Science)

39. Author(s): Matveenko, SI; Bishop, AR; Balatsky, AV, Title: Superconductivity fluctuations in a one-dimensional two-band electron-phonon model with strong repulsive interactions

Source: JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS Volume: 85 Issue: 1 Pages: 163-167 DOI: 10.1134/1.558300 Published: JUL 1997

Times Cited: 0 (from Web of Science)

40. Author(s): Haas, S; Balatsky, AV; Sigrist, M; et al., Title: Extended gapless regions in disordered $d(x^2-y^2)$ wave superconductors, Source: PHYSICAL REVIEW B Volume: 56

Issue: 9 Pages: 5108-5111 DOI: 10.1103/PhysRevB.56.5108 Published: SEP 1 1997

Times Cited: 41 (from Web of Science)

41. Author(s): Krotov, YA; Lee, DH; Balatsky, AV, Title: Superconductivity of a metallic stripe embedded in an antiferromagnet Source: PHYSICAL REVIEW B Volume: 56 Issue: 13

Pages: 8367-8373 DOI: 10.1103/PhysRevB.56.8367 Published: OCT 1 1997

Times Cited: 20 (from Web of Science)

42. Author(s): Balatsky, AV; Trugman, SA, Title: Lifshitz tail in the density of states of a superconductor with magnetic impurities Source: PHYSICAL REVIEW LETTERS Volume: 79

Issue: 19 Pages: 3767-3770 DOI: 10.1103/PhysRevLett.79.3767 Published: NOV 10 1997

Times Cited: 31 (from Web of Science)

43. Author(s): Balatsky, AV; Salkola, MI, Title: Comment on "Impurity states and the absence of quasiparticle localization in disordered d -wave superconductors" – Reply Source: PHYSICAL REVIEW LETTERS Volume: 80 Issue: 5 Pages: 1117-1117 DOI:

10.1103/PhysRevLett.80.1117 Published: FEB 2 1998

Times Cited: 6 (from Web of Science)

44. Author(s): Balatsky, AV, Title: Spontaneous time reversal and parity breaking in a $d(x^2-y^2)$ -wave superconductor with magnetic impurities Source: PHYSICAL REVIEW LETTERS

Volume: 80 Issue: 9 Pages: 1972-1975 DOI: 10.1103/PhysRevLett.80.1972 Published:

MAR 2 1998

Times Cited: 71 (from Web of Science)

45. Author(s): Movshovich, R; Hubbard, MA; Salamon, MB, Balatsky; et al. Title: Low-temperature anomaly in thermal conductivity of $\text{Bi}_2\text{Sr}_2\text{Ca}(\text{Cu}_{1-x}\text{Ni}_x)_2\text{O}_8$: Second superconducting phase? Source: PHYSICAL REVIEW LETTERS Volume: 80 Issue: 9

Pages: 1968-1971 DOI: 10.1103/PhysRevLett.80.1968 Published: MAR 2 1998

Times Cited: 61 (from Web of Science)

46. Author(s): Mao, W; Balatsky, AV, Title: Finite density of states in a mixed state of a $d(x^2-y^2)+id(xy)$ superconductor Source: PHYSICAL REVIEW B Volume: 59 Issue: 9 Pages: 6024-6026 DOI: 10.1103/PhysRevB.59.6024 Published: MAR 1 1999

Times Cited: 7 (from Web of Science)

47. Author(s): Balatsky, AV; Shen, ZX, Title: Condensed matter physics - Is this why T-c is so low?
Source: SCIENCE Volume: 284 Issue: 5417 Pages: 1137-1138 DOI: 10.1126/science.284.5417.1137 Published: MAY 14 1999
Times Cited: 24 (from Web of Science)
48. Author(s): Eriksson, O; Becker, JN; Balatsky, AV; et al., Title: Novel electronic configuration in delta - Pu
Source: JOURNAL OF ALLOYS AND COMPOUNDS Volume: 287 Issue: 1-2 Pages: 1-5
DOI: 10.1016/S0925-8388(99)00063-8 Published: JUN 1 1999
Times Cited: 98 (from Web of Science)
49. Author(s): Latyshev, YI; Yamashita, T; Bulaevskii, LN, Balatsky; et al., Title: Interlayer transport of quasiparticles and Cooper pairs in Bi₂Sr₂CaCu₂O_{8+delta} superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 82 Issue: 26 Pages: 5345-5348 DOI: 10.1103/PhysRevLett.82.5345 Published: JUN 28 1999
50. Author(s): Balatsky, AV; Bourges, P, Title: Linear dependence of peak width in $\chi(q, \omega)$ vs T-c for YBa₂Cu₃O_{6+x} superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 82 Issue: 26 Pages: 5337-5340 DOI: 10.1103/PhysRevLett.82.5337 Published: JUN 28 1999
Times Cited: 54 (from Web of Science)
51. Author(s): Graf, MJ; Balatsky, AV; Sauls, JA, Title: Local time-reversal-symmetry breaking in d(x²-y²) superconductors
Source: PHYSICAL REVIEW B Volume: 61 Issue: 5 Pages: 3255-3258 DOI: 10.1103/PhysRevB.61.3255 Published: FEB 1 2000
Times Cited: 15 (from Web of Science)
52. Author(s): Balatsky, AV, Title: Superconductivity - From obscurity to impurity
Source: NATURE Volume: 403 Issue: 6771 Pages: 717-718 DOI: 10.1038/35001703
Published: FEB 17 2000
Times Cited: 19 (from Web of Science)
53. Author(s): Balatsky, AV, Title: Field-induced d(x²-y²)+ id(xy) state and marginal stability of high-T-c superconductors
Source: PHYSICAL REVIEW B Volume: 61 Issue: 10 Pages: 6940-6944 DOI: 10.1103/PhysRevB.61.6940 Published: MAR 1 2000
Times Cited: 27 (from Web of Science)
54. Author(s): Eroles, J; Ortiz, G; Balatsky, AV; et al., Title: Inhomogeneity-induced superconductivity?
Source: EUROPHYSICS LETTERS Volume: 50 Issue: 4 Pages: 540-546 DOI: 10.1209/epl/i2000-00303-0 Published: MAY 2000
Times Cited: 23 (from Web of Science)
55. Author(s): Balatsky, AV; Kumar, P; Schrieffer, JR, Title: Collective mode in a superconductor with mixed-symmetry order parameter components
Source: PHYSICAL REVIEW LETTERS Volume: 84 Issue: 19 Pages: 4445-4448 DOI: 10.1103/PhysRevLett.84.4445 Published: MAY 8 2000
Times Cited: 17 (from Web of Science)

56. Author(s): Martin, I; Balatsky, A, Title: Probing pseudogap by Josephson tunneling
Source: PHYSICAL REVIEW B Volume: 62 Issue: 10 Pages: R6124-R6126 DOI:
10.1103/PhysRevB.62.R6124 Published: SEP 1 2000
Times Cited: 4 (from Web of Science)
57. Author(s): Graf, MJ; Balatsky, AV, Title: Identifying the pairing symmetry in the Sr₂RuO₄
superconductor
Source: PHYSICAL REVIEW B Volume: 62 Issue: 14 Pages: 9697-9702 DOI:
10.1103/PhysRevB.62.9697 Published: OCT 1 2000
Times Cited: 82 (from Web of Science)
58. Author(s): Kruis, HV; Martin, I; Balatsky, AV, Title: Impurity-induced resonant state in a
pseudogap, state of a high-T_c superconductor
Source: PHYSICAL REVIEW B Volume: 64 Issue: 5 Article Number: 054501 DOI:
10.1103/PhysRevB.64.054501 Published: AUG 1 2001
Times Cited: 32 (from Web of Science)
59. Author(s): Wang, QH; Balatsky, AV, Title: Proximity to a nearly superconducting quantum
critical liquid
Source: PHYSICAL REVIEW B Volume: 64 Issue: 9 Article Number: 092504 Published:
SEP 1 2001
Times Cited: 1 (from Web of Science)
60. Author(s): Smith, CM; Neto, AHC; Balatsky, AV, Title: T_c suppression in co-doped striped
cuprates
Source: PHYSICAL REVIEW LETTERS Volume: 87 Issue: 17 Article Number: 177010
DOI: 10.1103/PhysRevLett.87.177010 Published: OCT 22 2001
Times Cited: 23 (from Web of Science)
61. Author(s): Eroles, J; Ortiz, G; Balatsky, AV; et al., Title: Photoemission spectroscopy from
inhomogeneous models of cuprates
Source: PHYSICAL REVIEW B Volume: 64 Issue: 17 Article Number: 174510 DOI:
10.1103/PhysRevB.64.174510 Published: NOV 1 2001
Times Cited: 8 (from Web of Science)
62. Author(s): Batista, CD; Ortiz, G; Balatsky, AV, Title: Unified description of the resonance
peak and incommensuration in high-T_c superconductors
Source: PHYSICAL REVIEW B Volume: 64 Issue: 17 Article Number: 172508 DOI:
10.1103/PhysRevB.64.172508 Published: NOV 1 2001
Times Cited: 44 (from Web of Science)
63. Author(s): Smakov, J; Martin, I; Balatsky, AV, Title: Josephson scanning tunneling
microscopy
Source: PHYSICAL REVIEW B Volume: 64 Issue: 21 Article Number: 212506 DOI:
10.1103/PhysRevLett.87.212506 Published: DEC 1 2001
Times Cited: 17 (from Web of Science)

64. Author(s): Martin, I; Ortiz, G; Balatsky, AV; et al., Title: A minimal model of striped superconductors
Source: EUROPHYSICS LETTERS Volume: 56 Issue: 6 Pages: 849-855 DOI: 10.1209/epl/i2001-00597-2 Published: DEC 2001
Times Cited: 21 (from Web of Science)
65. Author(s): Morr, DK; Balatsky, AV, Title: Proximity effects and quantum dissipation in the chains of $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$
Source: PHYSICAL REVIEW LETTERS Volume: 87 Issue: 24 Article Number: 247002
DOI: 10.1103/PhysRevLett.87.247002 Published: DEC 10 2001
Times Cited: 23 (from Web of Science)
66. Author(s): Smakov, J; Martin, I; Balatsky, AV, Title: Theory of scanning tunneling microscopy measurement of single spin decoherence in a superconductor
Source: PHYSICAL REVIEW LETTERS Volume: 88 Issue: 3 Article Number: 037003 DOI: 10.1103/PhysRevLett.88.037003 Published: JAN 21 2002
Times Cited: 8 (from Web of Science)
67. Author(s): Martin, I; Balatsky, AV; Zaanen, J, Title: Impurity states and interlayer tunneling in high temperature superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 88 Issue: 9 Article Number: 097003 DOI: 10.1103/PhysRevLett.88.097003 Published: MAR 4 2002
Times Cited: 64 (from Web of Science)
68. Author(s): Zhu, JX; Balatsky, AV, Title: Field induced $d(x^2-y^2)+id(xy)$ state in d-density-wave metals
Source: PHYSICAL REVIEW B Volume: 65 Issue: 13 Article Number: 132502 DOI: 10.1103/PhysRevB.65.132502 Published: APR 1 2002
Times Cited: 7 (from Web of Science)
69. Author(s): Balatsky, AV; Manassen, Y; Salem, R, Title: Exchange-based noise spectroscopy of a single precessing spin with scanning tunnelling microscopy
Source: PHILOSOPHICAL MAGAZINE B-PHYSICS OF CONDENSED MATTER STATISTICAL MECHANICS ELECTRONIC OPTICAL AND MAGNETIC PROPERTIES Volume: 82 Issue: 11 Pages: 1291-1298 DOI:10.1080/13642810210146966 Published: JUL 2002
Times Cited: 20 (from Web of Science)
70. Author(s): Zhu, JX; Ting, CS; Balatsky, AV, Title: Single impurity effects in the mixed state of d-wave superconductors
Source: PHYSICAL REVIEW B Volume: 66 Issue: 6 Article Number: 064509 DOI: 10.1103/PhysRevB.66.064509 Published: AUG 1 2002
Times Cited: 6 (from Web of Science)
71. Author(s): Balatsky, A. V.; Martin, I., Title: Theory of Single Spin Detection with STM
Source: QUANTUM INFORMATION PROCESSING Volume: 1 Issue: 5 Pages: 355-364
DOI: 10.1023/A:1023465729846 Published: OCT 2002
Times Cited: 9 (from Web of Science)
72. Author(s): Sidorov, VA; Nicklas, M; Pagliuso, PG, Balatsky; et al., Title: Superconductivity and quantum criticality in CeCoIn_5

Source: PHYSICAL REVIEW LETTERS Volume: 89 Issue: 15 Article Number: 157004
DOI: 10.1103/PhysRevLett.89.157004 Published: OCT 7 2002
Times Cited: 158 (from Web of Science)

73. Author(s): Balatsky, AV; Manassen, Y; Salem, R, Title: ESR-STM of a single precessing spin: Detection of exchange-based spin noise
Source: PHYSICAL REVIEW B Volume: 66 Issue: 19 Article Number: 195416 DOI: 10.1103/PhysRevB.66.195416 Published: NOV 15 2002
Times Cited: 41 (from Web of Science)

74. Author(s): Bang, Y; Martin, I; Balatsky, AV, Title: Critical magnetic-fluctuations-induced superconductivity and residual density of states in the CeRhIn5 superconductor
Source: PHYSICAL REVIEW B Volume: 66 Issue: 22 Article Number: 224501 DOI: 10.1103/PhysRevB.66.224501 Published: DEC 1 2002
Times Cited: 13 (from Web of Science)

75. Author(s): Zhu, JX; Balatsky, AV, Title: Quantum electronic transport through a precessing spin
Source: PHYSICAL REVIEW LETTERS Volume: 89 Issue: 28 Article Number: 286802
DOI: 10.1103/PhysRevLett.89.286802 Published: DEC 31 2002
Times Cited: 33 (from Web of Science)

76. Author(s): Morr, DK; Balatsky, AV, Title: Impurities and quantum interference in the chains of YBa2Cu3O6+x
Source: PHYSICAL REVIEW LETTERS Volume: 90 Issue: 6 Article Number: 067005 DOI: 10.1103/PhysRevLett.90.067005 Published: FEB 14 2003
Times Cited: 19 (from Web of Science)

77. Author(s): Shytov, AV; Vekhter, I; Gruzberg, IA, Balatsky; et al., Title: Tail states in clean superconductors with magnetic impurities
Source: PHYSICAL REVIEW LETTERS Volume: 90 Issue: 14 Article Number: 147002
DOI: 10.1103/PhysRevLett.90.147002 Published: APR 11 2003
Times Cited: 7 (from Web of Science)

78. Author(s): Zhu, JX; Balatsky, AV, Title: Theory of current and shot-noise spectroscopy in single-molecular quantum dots with a phonon mode
Source: PHYSICAL REVIEW B Volume: 67 Issue: 16 Article Number: 165326 DOI: 10.1103/PhysRevB.67.165326 Published: APR 15 2003
Times Cited: 108 (from Web of Science)

79. Author(s): Zhu, JX; Balatsky, AV, Title: Josephson current in the presence of a precessing spin
Source: PHYSICAL REVIEW B Volume: 67 Issue: 17 Article Number: 174505 DOI: 10.1103/PhysRevB.67.174505 Published: MAY 1 2003
Times Cited: 24 (from Web of Science)

80. Author(s): Zhu, JX; Ahn, KH; Nussinov, Z, Balatsky; et al., Title: Elasticity-driven nanoscale electronic structure in superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 91 Issue: 5 Article Number: 057004 DOI: 10.1103/PhysRevLett.91.057004 Published: AUG 1 2003
Times Cited: 21 (from Web of Science)

81. Author(s): Nussinov, Z; Crommie, MF; Balatsky, AV, Title: Noise spectroscopy of a single spin with spin-polarized STM
Source: PHYSICAL REVIEW B Volume: 68 Issue: 8 Article Number: 085402 DOI: 10.1103/PhysRevB.68.085402 Published: AUG 15 2003
Times Cited: 26 (from Web of Science)
82. Author(s): Bang, Y; Graf, MJ; Balatsky, AV, Title: Nuclear spin-lattice relaxation rate in the $D-1+iD(2)$ superconducting state: Implications for CoO superconductor
Source: PHYSICAL REVIEW B Volume: 68 Issue: 21 Article Number: 212504 DOI: 10.1103/PhysRevB.68.212504 Published: DEC 2003
Times Cited: 11 (from Web of Science)
83. Author(s): Balatsky, AV; Abanov, A; Zhu, JX, Title: Inelastic tunneling spectroscopy in a d-wave superconductor
Source: PHYSICAL REVIEW B Volume: 68 Issue: 21 Article Number: 214506 DOI: 10.1103/PhysRevB.68.214506 Published: DEC 2003
Times Cited: 14 (from Web of Science)
84. Author(s): Bang, Y; Graf, MJ; Balatsky, AV; et al., Title: Nuclear spin-lattice relaxation rate in the d-wave superconducting state with coexisting antiferromagnetism
Source: PHYSICAL REVIEW B Volume: 69 Issue: 1 Article Number: 014505 DOI: 10.1103/PhysRevB.69.014505 Published: JAN 2004
Times Cited: 18 (from Web of Science)
85. Author(s): Manassen, Y; Balatsky, AV, Title: $1/f$ spin noise and a single spin detection with STM
Source: ISRAEL JOURNAL OF CHEMISTRY Volume: 44 Issue: 4 Pages: 401-408 DOI: 10.1560/QD9U-ULHL-6NWH-V0U0 Published: 2004
Times Cited: 4 (from Web of Science)
86. Author(s): Zhu, JX; Sun, J; Si, QM, Balatsky; et al., Title: Effects of a collective spin resonance mode on the scanning tunneling microscopy spectra of d-wave superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 92 Issue: 1 Article Number: 017002 DOI: 10.1103/PhysRevLett.92.017002 Published: JAN 9 2004
Times Cited: 14 (from Web of Science)
87. Author(s): Joglekar, YN; Neto, AHC; Balatsky, AV, Title: Nodal Cooper-pair stabilized phase dynamics in granular d-wave superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 92 Issue: 3 Article Number: 037004 DOI: 10.1103/PhysRevLett.92.037004 Published: JAN 23 2004
Times Cited: 18 (from Web of Science)
88. Author(s): Ahn, KH; Zhu, JX; Nussinov, Z, Balatsky; et al., Title: Atomic scale elastic textures coupled to electrons in superconductors
Source: JOURNAL OF SUPERCONDUCTIVITY Volume: 17 Issue: 1 Pages: 7-13 DOI: 10.1023/B:JOSC.0000011832.89047.81 Published: FEB 2004
Times Cited: 2 (from Web of Science)
89. Author(s): Joglekar, YN; Balatsky, AV; MacDonald, AH, Title: Noise spectroscopy and interlayer phase coherence in bilayer quantum Hall systems

Source: PHYSICAL REVIEW LETTERS Volume: 92 Issue: 8 Article Number: 086803 DOI: 10.1103/PhysRevLett.92.086803 Published: FEB 27 2004
Times Cited: 3 (from Web of Science)

90. Author(s): Zhu, JX; Nussinov, Z; Shnirman, A, Balatsky; et al., Title: Novel spin dynamics in a Josephson junction
Source: PHYSICAL REVIEW LETTERS Volume: 92 Issue: 10 Article Number: 107001
DOI: 10.1103/PhysRevLett.92.107001 Published: MAR 12 2004
Times Cited: 39 (from Web of Science)

91. Author(s): Bang, Y; Balatsky, AV, Title: Anomalous specific-heat jump in the heavy-fermion superconductor CeCoIn₅
Source: PHYSICAL REVIEW B Volume: 69 Issue: 21 Article Number: 212504 DOI: 10.1103/PhysRevB.69.212504 Published: JUN 2004
Times Cited: 7 (from Web of Science)

92. Author(s): Shnirman, A; Nussinov, Z; Zhu, JX, Balatsky; et al., Title: Spin and current variations in Josephson junctions
Source: LOW TEMPERATURE PHYSICS Volume: 30 Issue: 7-8 Pages: 629-633 DOI: 10.1063/1.1789934 Published: JUL-AUG 2004
Times Cited: 1 (from Web of Science)

93. Author(s): Bang, Y; Balatsky, AV; Wastin, F; et al., Title: Possible pairing mechanisms of PuCoGa₅ superconductor
Source: PHYSICAL REVIEW B Volume: 70 Issue: 10 Article Number: 104512 DOI: 10.1103/PhysRevB.70.104512 Published: SEP 2004
Times Cited: 24 (from Web of Science)

94. Author(s): Crooker, SA; Rickel, DG; Balatsky, AV; et al., Title: Spectroscopy of spontaneous spin noise as a probe of spin dynamics and magnetic resonance
Source: NATURE Volume: 431 Issue: 7004 Pages: 49-52 DOI: 10.1038/nature02804
Published: SEP 2 2004
Times Cited: 75 (from Web of Science)

95. Author(s): Balatsky, AV; Joglekar, YN; Littlewood, PB, Title: Dipolar superfluidity in electron-hole bilayer systems
Source: PHYSICAL REVIEW LETTERS Volume: 93 Issue: 26 Article Number: 266801
DOI: 10.1103/PhysRevLett.93.266801 Published: DEC 31 2004
Times Cited: 47 (from Web of Science)

96. Author(s): Park, T; Nussinov, Z; Hazzard, KRA, Balatsky; et al. Title: Novel dielectric anomaly in the hole-doped La₂Cu_{1-x}Li_xO₄ and La_{2-x}Sr_xNiO₄ insulators: Signature of an electronic glassy state
Source: PHYSICAL REVIEW LETTERS Volume: 94 Issue: 1 Article Number: 017002 DOI: 10.1103/PhysRevLett.94.017002 Published: JAN 14 2005
Times Cited: 54 (from Web of Science)

97. Author(s): Curro, NJ; Caldwell, T; Bauer, ED, Balatsky; et al. Title: Unconventional superconductivity in PuCoGa₅
Source: NATURE Volume: 434 Issue: 7033 Pages: 622-625 DOI: 10.1038/nature03428
Published: MAR 31 2005

98. Author(s): Nussinov, Z; Shnirman, A; Arovas, DP, Balatsky; et al., Title: Spin and spin-wave dynamics in Josephson junctions
Source: PHYSICAL REVIEW B Volume: 71 Issue: 21 Article Number: 214520 DOI: 10.1103/PhysRevB.71.214520 Published: JUN 2005
Times Cited: 28 (from Web of Science)
99. Author(s): Joglekar, YN; Neto, AHC; Balatsky, AV, Title: Nodal cooper-pair stabilized phase dynamics in granular d-wave superconductors (vol 92, art no 037004, 2004)
Source: PHYSICAL REVIEW LETTERS Volume: 94 Issue: 21 Article Number: 219901
DOI: 10.1103/PhysRevLett.94.219901 Published: JUN 3 2005
Times Cited: 3 (from Web of Science)
100. Author(s): Katsura, H; Nagaosa, N; Balatsky, AV, Title: Spin current and magnetoelectric effect in noncollinear magnets
Source: PHYSICAL REVIEW LETTERS Volume: 95 Issue: 5 Article Number: 057205 DOI: 10.1103/PhysRevLett.95.057205 Published: JUL 29 2005
Times Cited: 726 (from Web of Science)
101. Author(s): Mihaila, B; Gaudio, S; Blagoev, KB, Balatsky; et al., Title: Density and spin response functions in ultracold fermionic atom gases
Source: PHYSICAL REVIEW LETTERS Volume: 95 Issue: 9 Article Number: 090402 DOI: 10.1103/PhysRevLett.95.090402 Published: AUG 26 2005
Times Cited: 14 (from Web of Science)
102. Author(s): Joglekar, YN; Balatsky, AV; Lilly, MP, Title: Excitonic condensate and quasiparticle transport in electron-hole bilayer systems
Source: PHYSICAL REVIEW B Volume: 72 Issue: 20 Article Number: 205313 DOI: 10.1103/PhysRevB.72.205313 Published: NOV 2005
Times Cited: 12 (from Web of Science)
103. Author(s): Zhu, JX; Balatsky, AV; Devereaux, TP; et al., Title: Fourier-transformed local density of states and tunneling into a d-wave superconductor with bosonic modes
Source: PHYSICAL REVIEW B Volume: 73 Issue: 1 Article Number: 014511 DOI: 10.1103/PhysRevB.73.014511 Published: JAN 2006
Times Cited: 21 (from Web of Science)
104. Author(s): Zhu, JX; Nussinov, Z; Balatsky, AV, Title: Vibration-mode-induced Shapiro steps and back action in Josephson junctions
Source: PHYSICAL REVIEW B Volume: 73 Issue: 6 Article Number: 064513 DOI: 10.1103/PhysRevB.73.064513 Published: FEB 2006
Times Cited: 9 (from Web of Science)
105. Author(s): Zhu, JX; Balatsky, AV, Title: Vortex core excitations in superconductors with frustrated antiferromagnetism
Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 434 Issue: 1 Pages: 90-94 DOI: 10.1016/j.physc.2005.12.007 Published: FEB 1 2006
Times Cited: 0 (from Web of Science)
- *106. Author(s): Balatsky, A. V.; Vekhter, I.; Zhu, Jian-Xin, Title: Impurity-induced states in conventional and unconventional superconductors

Source: REVIEWS OF MODERN PHYSICS Volume: 78 Issue: 2 Pages: 373-433 DOI: 10.1103/RevModPhys.78.373 Published: APR-JUN 2006
Times Cited: 289 (from Web of Science)

107. Author(s): Balatsky, AV; Fransson, J; Mozyrsky, D; et al., Title: STM NMR and nuclear spin noise
Source: PHYSICAL REVIEW B Volume: 73 Issue: 18 Article Number: 184429 DOI: 10.1103/PhysRevB.73.184429 Published: MAY 2006
Times Cited: 7 (from Web of Science)

108. Author(s): Katsura, H; Balatsky, AV; Nussinov, Z; et al., Title: Voltage dependence of Landau-Lifshitz-Gilbert damping of spin in a current-driven tunnel junction
Source: PHYSICAL REVIEW B Volume: 73 Issue: 21 Article Number: 212501 DOI: 10.1103/PhysRevB.73.212501 Published: JUN 2006
Times Cited: 9 (from Web of Science)

109. Author(s): Balatsky, Alexander V.; Abrahams, Elihu, Title: Effect of impurities on supersolid condensate: A Ginzburg-Landau approach
Source: JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM Volume: 19 Issue: 3-5 Pages: 395-399 DOI: 10.1007/s10948-006-0178-3 Published: JUL 2006
Times Cited: 7 (from Web of Science)

110. Author(s): Bang, Yunkyoo; Graf, M. J.; Curro, N. J., Balatsky; et al., Title: Nuclear spin-lattice relaxation rate in PuMGa₅ (M=Rh, Co): A two-component spin-fermion model
Source: PHYSICAL REVIEW B Volume: 74 Issue: 5 Article Number: 054514 DOI: 10.1103/PhysRevB.74.054514 Published: AUG 2006
Times Cited: 6 (from Web of Science)

*111. Author(s): Lee, Jinho; Fujita, K.; McElroy, K., Balatsky; et al., Title: Interplay of electron-lattice interactions and superconductivity in Bi₂Sr₂CaCu₂O_{8+δ}
Source: NATURE Volume: 442 Issue: 7102 Pages: 546-550 DOI: 10.1038/nature04973
Published: AUG 3 2006
Times Cited: 202 (from Web of Science)

112. Author(s): Balatsky, A. V.; Zhu, Jian-Xin, Title: Local strong-coupling pairing in d-wave superconductors with inhomogeneous bosonic modes
Source: PHYSICAL REVIEW B Volume: 74 Issue: 9 Article Number: 094517 DOI: 10.1103/PhysRevB.74.094517 Published: SEP 2006 Times Cited: 19 (from Web of Science)

113. Author(s): Zhu, Jian-Xin; McElroy, K.; Lee, J., Balatsky; et al., Title: Effects of pairing potential scattering on Fourier-transformed inelastic tunneling spectra of high-T_c cuprate superconductors with bosonic modes
Source: PHYSICAL REVIEW LETTERS Volume: 97 Issue: 17 Article Number: 177001 DOI: 10.1103/PhysRevLett.97.177001 Published: OCT 27 2006
Times Cited: 17 (from Web of Science)

114. Author(s): Joglekar, Yogesh N.; Balatsky, Alexander V.; Das Sarma, S., Title: Wigner supersolid of excitons in electron-hole bilayers
Source: PHYSICAL REVIEW B Volume: 74 Issue: 23 Article Number: 233302 DOI: 10.1103/PhysRevB.74.233302 Published: DEC 2006
Times Cited: 17 (from Web of Science)

115. Author(s): Dahal, Hari P.; Joglekar, Yogesh N.; Bedell, Kevin S., Balatsky; et al., Title: Absence of Wigner crystallization in graphene
Source: PHYSICAL REVIEW B Volume: 74 Issue: 23 Article Number: 233405 DOI: 10.1103/PhysRevB.74.233405 Published: DEC 2006
Times Cited: 30 (from Web of Science)
116. Author(s): Katsura, Hosho; Balatsky, Alexander V.; Nagaosa, Naoto, Title: Dynamical magnetoelectric coupling in helical magnets
Source: PHYSICAL REVIEW LETTERS Volume: 98 Issue: 2 Article Number: 027203 DOI: 10.1103/PhysRevLett.98.027203 Published: JAN 12 2007
Times Cited: 117 (from Web of Science)
117. Author(s): Wehling, T. O.; Balatsky, A. V.; Katsnelson, M. I.; et al., Title: Local electronic signatures of impurity states in graphene
Source: PHYSICAL REVIEW B Volume: 75 Issue: 12 Article Number: 125425 DOI: 10.1103/PhysRevB.75.125425 Published: MAR 2007
Times Cited: 113 (from Web of Science)
118. Author(s): Balatsky, A. V.; Graf, M. J.; Nussinov, Z.; et al., Title: Entropy of solid He-4: The possible role of a dislocation-induced glass
Source: PHYSICAL REVIEW B Volume: 75 Issue: 9 Article Number: 094201 DOI: 10.1103/PhysRevB.75.094201 Published: MAR 2007
Times Cited: 45 (from Web of Science)
119. Author(s): Fransson, J.; Balatsky, A. V., Title: Exchange interaction and Fano resonances in diatomic molecular systems
Source: PHYSICAL REVIEW B Volume: 75 Issue: 15 Article Number: 153309 DOI: 10.1103/PhysRevB.75.153309 Published: APR 2007
Times Cited: 5 (from Web of Science)
120. Author(s): Zhu, Jian-Xin; Rasmussen, K. O.; Balatsky, A. V.; et al., Title: Local electronic structure in the Peyrard-Bishop-Holstein model
Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 19 Issue: 13 Article Number: 136203 DOI: 10.1088/0953-8984/19/13/136203 Published: APR 4 2007
Times Cited: 9 (from Web of Science)
121. Author(s): Fransson, J.; Balatsky, A. V., Title: Surface imaging of inelastic Friedel oscillations
Source: PHYSICAL REVIEW B Volume: 75 Issue: 19 Article Number: 195337 DOI: 10.1103/PhysRevB.75.195337 Published: MAY 2007
Times Cited: 14 (from Web of Science)
122. Author(s): Phillips, Philip; Balatsky, Alexander V., Title: Cracking the supersolid
Source: SCIENCE Volume: 316 Issue: 5830 Pages: 1435-1436 DOI: 10.1126/science.1143866 Published: JUN 8 2007
Times Cited: 12 (from Web of Science)
123. Author(s): Nussinov, Z.; Balatsky, A. V.; Graf, M. J.; et al., Title: Origin of the decrease in the torsional-oscillator period of solid He-4

Source: PHYSICAL REVIEW B Volume: 76 Issue: 1 Article Number: 014530 DOI: 10.1103/PhysRevB.76.014530 Published: JUL 2007
Times Cited: 77 (from Web of Science)

124. Author(s): Parker, David; Haas, Stephan; Balatsky, Alexander V., Title: Generalized cuprate gap symmetry and higher d-wave harmonics: Effects of correlation length, doping, temperature, and impurity scattering
Source: PHYSICAL REVIEW B Volume: 76 Issue: 10 Article Number: 104503 DOI: 10.1103/PhysRevB.76.104503 Published: SEP 2007
Times Cited: 1 (from Web of Science)

*125. Author(s): Kilina, Svetlana; Tretiak, Sergei; Yarotski, Dzmitry A., Balatsky; et al., Title: Electronic properties of DNA base molecules adsorbed on a metallic surface
Source: JOURNAL OF PHYSICAL CHEMISTRY C Volume: 111 Issue: 39 Pages: 14541-14551 DOI: 10.1021/jp070805u Published: OCT 4 2007
Times Cited: 21 (from Web of Science)

126. Author(s): Qazilbash, M. M.; Brehm, M.; Chae, Byung-Gyu, Balatsky; et al., Title: Mott transition in VO₂ revealed by infrared spectroscopy and nano-imaging
Source: SCIENCE Volume: 318 Issue: 5857 Pages: 1750-1753 DOI: 10.1126/science.1150124 Published: DEC 14 2007
Times Cited: 273 (from Web of Science)

127. Author(s): Dahal, Hari P.; Balatsky, A. V.; Zhu, Jian-Xin, Title: Tuning impurity states in bilayer graphene
Source: PHYSICAL REVIEW B Volume: 77 Issue: 11 Article Number: 115114 DOI: 10.1103/PhysRevB.77.115114 Published: MAR 2008
Times Cited: 13 (from Web of Science)

128. Author(s): Mielke, Charles H.; Balatsky, Alexander V., Title: Crossing a bridge into the unknown
Source: NATURE NANOTECHNOLOGY Volume: 3 Issue: 3 Pages: 129-130 DOI: 10.1038/nnano.2008.48 Published: MAR 2008
Times Cited: 1 (from Web of Science)

129. Author(s): Rosengren, A.; Lundow, P. H.; Balatsky, A. V., Title: Isotope effect on superconductivity in Josephson coupled stripes in underdoped cuprates
Source: PHYSICAL REVIEW B Volume: 77 Issue: 13 Article Number: 134508 DOI: 10.1103/PhysRevB.77.134508 Published: APR 2008
Times Cited: 0 (from Web of Science)

130. Author(s): Grigorenko, Ilya; Haas, Stephan; Balatsky, Alexander; et al., Title: Optimal control of electromagnetic field using metallic nanoclusters
Source: NEW JOURNAL OF PHYSICS Volume: 10 Article Number: 043017 DOI: 10.1088/1367-2630/10/4/043017 Published: APR 14 2008
Times Cited: 12 (from Web of Science)

131. Author(s): Grigorenko, Ilya; Zhu, Jian-Xin; Balatsky, Alexander., Title: Optimization of the design of superconducting inhomogeneous nanowires
Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 20 Issue: 19 Article Number: 195204 DOI: 10.1088/0953-8984/20/19/195204 Published: MAY 14 2008

Times Cited: 3 (from Web of Science)

132. Author(s): Wehling, T. O.; Dahal, H. P.; Lichtenstein, A. I.; et al., Title: Local impurity effects in superconducting graphene

Source: PHYSICAL REVIEW B Volume: 78 Issue: 3 Article Number: 035414 DOI: 10.1103/PhysRevB.78.035414 Published: JUL 2008

Times Cited: 3 (from Web of Science)

133. Author(s): Fujita, K.; Grigorenko, Ilya; Lee, J.; et al., Title: Bogoliubov angle and visualization of particle-hole mixture in superconductors

Source: PHYSICAL REVIEW B Volume: 78 Issue: 5 Article Number: 054510 DOI: 10.1103/PhysRevB.78.054510 Published: AUG 2008

Times Cited: 15 (from Web of Science)

134. Author(s): Fransson, J.; Zhu, Jian-Xin; Balatsky, A. V., Title: Vibrating superconducting island in a Josephson junction

Source: PHYSICAL REVIEW LETTERS Volume: 101 Issue: 6 Article Number: 067202 DOI: 10.1103/PhysRevLett.101.067202 Published: AUG 8 2008

Times Cited: 7 (from Web of Science)

135. Author(s): Talbayev, D.; Trugman, S. A.; Balatsky, A. V.; et al., Title: Detection of coherent magnons via ultrafast pump-probe reflectance spectroscopy in multiferroic

Ba_{0.6}Sr_{1.4}Zn₂Fe₁₂O₂₂

Source: PHYSICAL REVIEW LETTERS Volume: 101 Issue: 9 Article Number: 097603 DOI: 10.1103/PhysRevLett.101.097603 Published: AUG 29 2008

Times Cited: 14 (from Web of Science)

136. Author(s): Wehling, T. O.; Balatsky, A. V.; Tselik, A. M.; et al., Title: Midgap states in corrugated graphene: Ab initio calculations and effective field theory

Source: EPL Volume: 84 Issue: 1 Article Number: 17003 DOI: 10.1209/0295-5075/84/17003 Published: OCT 2008

Times Cited: 38 (from Web of Science)

138. Author(s): Kalas, Ryan M.; Balatsky, Alexander V.; Mozyrsky, Dmitry, Title: Odd-frequency pairing in a binary mixture of bosonic and fermionic cold atoms

Source: PHYSICAL REVIEW B Volume: 78 Issue: 18 Article Number: 184513 DOI: 10.1103/PhysRevB.78.184513 Published: NOV 2008

Times Cited: 8 (from Web of Science)

139. Author(s): Wehling, T. O.; Grigorenko, I.; Lichtenstein, A. I., Balatsky; et al., Title: Phonon-Mediated Tunneling into Graphene

Source: PHYSICAL REVIEW LETTERS Volume: 101 Issue: 21 Article Number: 216803 DOI: 10.1103/PhysRevLett.101.216803 Published: NOV 21 2008

Times Cited: 29 (from Web of Science)

140. Author(s): Parker, David; Balatsky, Alexander V., Title: Quantitative evidence for spin-fluctuation-mediated higher-harmonic d-wave components: Hole- and electron-doped cuprates

Source: PHYSICAL REVIEW B Volume: 78 Issue: 21 Article Number: 214502 DOI: 10.1103/PhysRevB.78.214502 Published: DEC 2008

Times Cited: 1 (from Web of Science)

141. Author(s): Balatsky, Alexander V.; Lee, W. S.; Shen, Z. X., Title: Bogoliubov angle, particle-hole mixture, and angle-resolved photoemission spectroscopy in superconductors
Source: PHYSICAL REVIEW B Volume: 79 Issue: 2 Article Number: 020505 DOI: 10.1103/PhysRevB.79.020505 Published: JAN 2009
Times Cited: 3 (from Web of Science)
142. Author(s): Yarotski, Dzmitry A.; Kilina, Svetlana V.; Talin, A. Alec, Balatsky; et al., Title: Scanning Tunneling Microscopy of DNA-Wrapped Carbon Nanotubes
Source: NANO LETTERS Volume: 9 Issue: 1 Pages: 12-17 DOI: 10.1021/nl801455t
Published: JAN 2009
Times Cited: 47 (from Web of Science)
143. Author(s): Tanaka, Yukio; Yokoyama, Takehito; Balatsky, Alexander V.; et al., Title: Theory of topological spin current in noncentrosymmetric superconductors
Source: PHYSICAL REVIEW B Volume: 79 Issue: 6 Article Number: 060505 DOI: 10.1103/PhysRevB.79.060505 Published: FEB 2009
Times Cited: 77 (from Web of Science)
144. Author(s): Qazilbash, M. M.; Brehm, M.; Andreev, G. O., Balatsky; et al., Title: Infrared spectroscopy and nano-imaging of the insulator-to-metal transition in vanadium dioxide Source: PHYSICAL REVIEW B Volume: 79 Issue: 7 Article Number: 075107 DOI: 10.1103/PhysRevB.79.075107 Published: FEB 2009
Times Cited: 45 (from Web of Science)
145. Author(s): Nussinov, Z.; Vekhter, I.; Balatsky, A. V., Title: Nonuniform glassy electronic phases from competing local orders
Source: PHYSICAL REVIEW B Volume: 79 Issue: 16 Article Number: 165122 DOI: 10.1103/PhysRevB.79.165122 Published: APR 2009
Times Cited: 7 (from Web of Science)
146. Author(s): Chantis, Athanasios N.; Smith, Darryl L.; Fransson, J., Balatsky; et al., Title: Scanning tunneling microscopy detection of spin polarized resonant surface bands: The example of Fe(001)
Source: PHYSICAL REVIEW B Volume: 79 Issue: 16 Article Number: 165423 DOI: 10.1103/PhysRevB.79.165423 Published: APR 2009
Times Cited: 1 (from Web of Science)
147. Author(s): Kilin, Dmitri S.; Tsemekhman, Kiril L.; Kilina, Svetlana V., Balatsky; et al., Title: Photoinduced Conductivity of a Porphyrin-Gold Composite Nanowire
Source: JOURNAL OF PHYSICAL CHEMISTRY A Volume: 113 Issue: 16 Pages: 4549-4556 DOI: 10.1021/jp811169c Published: APR 23 2009
Times Cited: 16 (from Web of Science)
148. Author(s): Hunt, B.; Pratt, E.; Gadagkar, V., Balatsky; et al., Title: Evidence for a Superglass State in Solid He-4
Source: SCIENCE Volume: 324 Issue: 5927 Pages: 632-636 DOI: 10.1126/science.1169512 Published: MAY 1 2009
Times Cited: 90 (from Web of Science)
149. Author(s): Balatsky, A. V.; Chantis, A.; Dahal, Hari P.; et al., Title: Incommensurate spin resonance in URu₂Si₂

Source: PHYSICAL REVIEW B Volume: 79 Issue: 21 Article Number: 214413 DOI: 10.1103/PhysRevB.79.214413 Published: JUN 2009
Times Cited: 25 (from Web of Science)

150. Author(s): Biswas, Rudro R.; Balatsky, Alexander, Title: Quasiparticle interference and Landau level spectroscopy in graphene in the presence of a strong magnetic field
Source: PHYSICAL REVIEW B Volume: 80 Issue: 8 Article Number: 081412 DOI: 10.1103/PhysRevB.80.081412 Published: AUG 2009

151. Author(s): Kilina, Svetlana; Yarotski, Dzmitry; Doorn, Stephen K., Balatsky; et al., Title: Cross- and parallel-polarized excitations in carbon nanotubes: DNA assembly in hybrid carbon nanotube systems
Source: ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY Volume: 238 Meeting Abstract: 293-PHYS Published: AUG 16 2009
Times Cited: 0 (from Web of Science)

152. Author(s): Galperin, Michael; Saito, Keiji; Balatsky, Alexander V.; et al., Title: Cooling mechanisms in molecular conduction junctions
Source: PHYSICAL REVIEW B Volume: 80 Issue: 11 Article Number: 115427 DOI: 10.1103/PhysRevB.80.115427 Published: SEP 2009
Times Cited: 27 (from Web of Science)

153. Author(s): Frenzel, A.; Qazilbash, M. M.; Brehm, M., Balatsky, Balatsky; et al., Title: Inhomogeneous electronic state near the insulator-to-metal transition in the correlated oxide VO₂
Source: PHYSICAL REVIEW B Volume: 80 Issue: 11 Article Number: 115115 DOI: 10.1103/PhysRevB.80.115115 Published: SEP 2009
Times Cited: 25 (from Web of Science)

154. Author(s): Mazin, I. I.; Balatsky, A. V., Title: Superconductivity in Ca-intercalated bilayer graphene
Source: PHILOSOPHICAL MAGAZINE LETTERS Volume: 90 Issue: 10 Pages: 731-738 DOI: 10.1080/09500839.2010.487473 Published: 2010
Times Cited: 4 (from Web of Science)

155. Author(s): Makarevich, P. I.; Andreenko, E. Yu.; Balatsky, A. V.; et al., Title: Combinations of NOS3 and CYBA alleles and essential hypertension risk in men
Source: CARDIOVASCULAR THERAPY AND PREVENTION Volume: 9 Issue: 3 Pages: 4-9 Published: 2010
Times Cited: 0 (from Web of Science)

156. Author(s): Brar, Victor W.; Wickenburg, Sebastian; Panlasigui, Melissa, Balatsky; et al., Title: Observation of Carrier-Density-Dependent Many-Body Effects in Graphene via Tunneling Spectroscopy
Source: PHYSICAL REVIEW LETTERS Volume: 104 Issue: 3 Article Number: 036805 DOI: 10.1103/PhysRevLett.104.036805 Published: JAN 22 2010
Times Cited: 38 (from Web of Science)

157. Author(s): Wehling, T. O.; Dahal, H. P.; Lichtenstein, A. I., Balatsky; et al., Title: Theory of Fano resonances in graphene: The influence of orbital and structural symmetries on STM spectra

Source: PHYSICAL REVIEW B Volume: 81 Issue: 8 Article Number: 085413 DOI:
10.1103/PhysRevB.81.085413 Published: FEB 2010
Times Cited: 27 (from Web of Science)

158. Author(s): Kos, Simon; Balatsky, Alexander V.; Littlewood, Peter B.; et al., Title: Spin noise of itinerant fermions

Source: PHYSICAL REVIEW B Volume: 81 Issue: 6 Article Number: 064407 DOI:
10.1103/PhysRevB.81.064407 Published: FEB 2010
Times Cited: 6 (from Web of Science)

159. Author(s): Graf, M. J.; Nussinov, Z.; Balatsky, A. V., Title: The Glassy Response of Solid He-4 to Torsional Oscillations

Source: JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 158 Issue: 3-4 Pages:
550-559 DOI: 10.1007/s10909-009-9958-z Published: FEB 2010
Times Cited: 17 (from Web of Science)

160. Author(s): Wehling, T. O.; Balatsky, A. V.; Katsnelson, M. I.; et al., Title: Orbitally controlled Kondo effect of Co adatoms on graphene

Source: PHYSICAL REVIEW B Volume: 81 Issue: 11 Article Number: 115427 DOI:
10.1103/PhysRevB.81.115427 Published: MAR 2010
Times Cited: 45 (from Web of Science)

161. Author(s): Fransson, J.; Eriksson, O.; Balatsky, A. V., Title: Theory of spin-polarized scanning tunneling microscopy applied to local spins

Source: PHYSICAL REVIEW B Volume: 81 Issue: 11 Article Number: 115454 DOI:
10.1103/PhysRevB.81.115454 Published: MAR 2010
Times Cited: 22 (from Web of Science)

162. Author(s): Baek, S. -H.; Graf, M. J.; Balatsky, A. V.; et al., Title: Antiferromagnetic patches and hidden order in URu₂Si₂ by impurity doping

Source: PHYSICAL REVIEW B Volume: 81 Issue: 13 Article Number: 132404 DOI:
10.1103/PhysRevB.81.132404 Published: APR 1 2010
Times Cited: 9 (from Web of Science)

163. Author(s): Fransson, J.; Balatsky, A. V.; Zhu, Jian-Xin, Title: Dynamical properties of a vibrating molecular quantum dot in a Josephson junction

Source: PHYSICAL REVIEW B Volume: 81 Issue: 15 Article Number: 155440 DOI:
10.1103/PhysRevB.81.155440 Published: APR 15 2010
Times Cited: 4 (from Web of Science)

164. Author(s): Dahal, Hari P.; Hu, Zi-Xiang; Sinitsyn, N. A., Balatsky; et al., Title: Edge states in a honeycomb lattice: Effects of anisotropic hopping and mixed edges

Source: PHYSICAL REVIEW B Volume: 81 Issue: 15 Article Number: 155406 DOI:
10.1103/PhysRevB.81.155406 Published: APR 15 2010
Times Cited: 5 (from Web of Science)

165. Author(s): Dubi, Yonatan; Balatsky, Alexander V., Title: Impurity-Induced Bound States and Proximity Effect in a Bilayer Exciton Condensate

Source: PHYSICAL REVIEW LETTERS Volume: 104 Issue: 16 Article Number: 166802
DOI: 10.1103/PhysRevLett.104.166802 Published: APR 23 2010
Times Cited: 0 (from Web of Science)

166. Author(s): Dahal, Hari P.; Wehling, Tim O.; Bedell, Kevin S.; et al., Title: Charge inhomogeneity in a single and bilayer graphene
Source: PHYSICA B-CONDENSED MATTER Volume: 405 Issue: 9 Pages: 2241-2244
DOI: 10.1016/j.physb.2010.02.019 Published: MAY 1 2010
Times Cited: 6 (from Web of Science)
167. Author(s): Fransson, J.; Manoharan, H. C.; Balatsky, A. V., Title: Detection and Cloaking of Molecular Objects in Coherent Nanostructures Using Inelastic Electron Tunneling Spectroscopy
Source: NANO LETTERS Volume: 10 Issue: 5 Pages: 1600-1604 DOI: 10.1021/nl903991a
Published: MAY 2010
Times Cited: 4 (from Web of Science)
168. Author(s): Su, Jung-Jung; Graf, Matthias J.; Balatsky, Alexander V., Title: A Glassy Contribution to the Heat Capacity of hcp He-4 Solids
Source: JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 159 Issue: 3-4 Pages: 431-440 DOI: 10.1007/s10909-010-0163-x Published: MAY 2010
Times Cited: 13 (from Web of Science)
169. Author(s): Schmidt, A. R.; Hamidian, M. H.; Wahl, P.; et al., Title: Imaging the Fano lattice to 'hidden order' transition in URu₂Si₂
Source: NATURE Volume: 465 Issue: 7298 Pages: 570-576 DOI: 10.1038/nature09073
Published: JUN 3 2010
Times Cited: 88 (from Web of Science)
170. Author(s): Yokoyama, Takehito; Balatsky, Alexander V.; Nagaosa, Naoto, Title: Gate-Controlled One-Dimensional Channel on the Surface of a 3D Topological Insulator
Source: PHYSICAL REVIEW LETTERS Volume: 104 Issue: 24 Article Number: 246806
DOI: 10.1103/PhysRevLett.104.246806 Published: JUN 18 2010
Times Cited: 7 (from Web of Science)
171. Author(s): Biswas, Rudro R.; Balatsky, A. V., Title: Impurity-induced states on the surface of three-dimensional topological insulators
Source: PHYSICAL REVIEW B Volume: 81 Issue: 23 Article Number: 233405 DOI: 10.1103/PhysRevB.81.233405 Published: JUN 24 2010
Times Cited: 57 (from Web of Science)
178. Author(s): Su, Jung-Jung; Graf, Matthias J.; Balatsky, Alexander V., Title: Glass Anomaly in the Shear Modulus of Solid He-4
Source: PHYSICAL REVIEW LETTERS Volume: 105 Issue: 4 Article Number: 045302
DOI: 10.1103/PhysRevLett.105.045302 Published: JUL 22 2010
Times Cited: 17 (from Web of Science)
179. Author(s): Muniz, Rodrigo A.; Dahal, Hari P.; Balatsky, A. V.; et al., Title: Impurity-assisted nanoscale localization of plasmonic excitations in graphene
Source: PHYSICAL REVIEW B Volume: 82 Issue: 8 Article Number: 081411 DOI: 10.1103/PhysRevB.82.081411 Published: AUG 20 2010
Times Cited: 7 (from Web of Science)
180. Author(s): Balatsky, A. V.; Basov, D. N.; Zhu, Jian-Xin, Title: Induction of charge density waves by spin density waves in iron-based superconductors

Source: PHYSICAL REVIEW B Volume: 82 Issue: 14 Article Number: 144522 DOI: 10.1103/PhysRevB.82.144522 Published: OCT 22 2010
Times Cited: 6 (from Web of Science)

*181. Author(s): She, Jian-Huang; Zaanen, Jan; Bishop, Alan R., Balatsky; et al., Title: Stability of quantum critical points in the presence of competing orders
Source: PHYSICAL REVIEW B Volume: 82 Issue: 16 Article Number: 165128 DOI: 10.1103/PhysRevB.82.165128 Published: OCT 28 2010
Times Cited: 8 (from Web of Science)

182. Author(s): Woelfle, P.; Dubi, Y.; Balatsky, A. V., Title: Tunneling into Clean Heavy Fermion Compounds: Origin of the Fano Line Shape
Source: PHYSICAL REVIEW LETTERS Volume: 105 Issue: 24 Article Number: 246401 DOI: 10.1103/PhysRevLett.105.246401 Published: DEC 6 2010
Times Cited: 18 (from Web of Science)

183. Author(s): Dahal, Hari P.; Muniz, Rodrigo A.; Haas, Stephan, Balatsky; et al., Title: Visualization of nano-plasmons in graphene
Source: PHILOSOPHICAL MAGAZINE Volume: 91 Issue: 33 Pages: 4276-4292 DOI: 10.1080/14786435.2011.611827 Published: 2011
Times Cited: 0 (from Web of Science)

184. Author(s): Colesniuc, Corneliu N.; Biswas, Rudro R.; Hevia, Samuel A., Balatsky; et al., Title: Exponential behavior of the Ohmic transport in organic films
Source: PHYSICAL REVIEW B Volume: 83 Issue: 8 Article Number: 085414 DOI: 10.1103/PhysRevB.83.085414 Published: FEB 18 2011
Times Cited: 5 (from Web of Science)

185. Author(s): Dubi, Yonatan; Balatsky, Alexander V., Title: Hybridization Wave as the "Hidden Order" in URu₂Si₂
Source: PHYSICAL REVIEW LETTERS Volume: 106 Issue: 8 Article Number: 086401 DOI: 10.1103/PhysRevLett.106.086401 Published: FEB 23 2011
Times Cited: 27 (from Web of Science)

186. Author(s): Biswas, Rudro R.; Balatsky, Alexander V., Title: Scattering from surface step edges in strong topological insulators
Source: PHYSICAL REVIEW B Volume: 83 Issue: 7 Article Number: 075439 DOI: 10.1103/PhysRevB.83.075439 Published: FEB 28 2011
Times Cited: 16 (from Web of Science)

187. Author(s): Su, Jung-Jung; Graf, Matthias J.; Balatsky, Alexander V., Title: Shear Modulus in Viscoelastic Solid He-4
Source: JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 162 Issue: 5-6 Pages: 433-440 DOI: 10.1007/s10909-010-0322-0 Published: MAR 2011
Times Cited: 5 (from Web of Science)

188. Author(s): Su, Jung-Jung; Dubi, Yonatan; Woelfle, Peter, Balatsky; et al., Title: A charge density wave in the hidden order state of URu₂Si₂
Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 23 Issue: 9 Special Issue: SI Article Number: 094214 DOI: 10.1088/0953-8984/23/9/094214 Published: MAR 9 2011

Times Cited: 4 (from Web of Science)

189. Author(s): Das, Tanmoy; Balatsky, A. V., Title: Two Energy Scales in the Magnetic Resonance Spectrum of Electron and Hole Doped Prictide Superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 106 Issue: 15 Article Number: 157004
DOI: 10.1103/PhysRevLett.106.157004 Published: APR 15 2011
Times Cited: 16 (from Web of Science)

190. Author(s): Bauer, E. D.; Yang, Yi-feng; Capan, C., Balatsky; et al., Title: Electronic inhomogeneity in a Kondo lattice
Source: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA Volume: 108 Issue: 17 Pages: 6857-6861 DOI:
10.1073/pnas.1103965108 Published: APR 26 2011
Times Cited: 16 (from Web of Science)

191. Author(s): Pratt, E. J.; Hunt, B.; Gadagkar, V., Balatsky; et al., Title: Interplay of Rotational, Relaxational, and Shear Dynamics in Solid He-4
Source: SCIENCE Volume: 332 Issue: 6031 Pages: 821-824 DOI:
10.1126/science.1203080 Published: MAY 13 2011
Times Cited: 20 (from Web of Science)

192. Author(s): Pezzoli, Maria E.; Graf, Matthias J.; Haule, Kristjan, Balatsky; et al., Title: Local suppression of the hidden-order phase by impurities in URu2Si2
Source: PHYSICAL REVIEW B Volume: 83 Issue: 23 Article Number: 235106 DOI:
10.1103/PhysRevB.83.235106 Published: JUN 6 2011
Times Cited: 2 (from Web of Science)

193. Author(s): Haraldsen, J. T.; Trugman, S. A.; Balatsky, A. V., Title: Induced polarization at a paraelectric/superconducting interface
Source: PHYSICAL REVIEW B Volume: 84 Issue: 2 Article Number: 020103 DOI:
10.1103/PhysRevB.84.020103 Published: JUL 20 2011
Times Cited: 1 (from Web of Science)

194. Author(s): Das, Tanmoy; Balatsky, A. V., Title: Stripes, spin resonance, and nodeless d-wave pairing symmetry in Fe2Se2-based layered superconductors
Source: PHYSICAL REVIEW B Volume: 84 Issue: 1 Article Number: 014521 DOI:
10.1103/PhysRevB.84.014521 Published: JUL 27 2011
Times Cited: 35 (from Web of Science)

195. Author(s): Das, Tanmoy; Balatsky, A. V., Title: Modulated superconductivity due to vacancy and magnetic order in A(y)Fe(2-x/2)Se(2) [A = Cs, K, (Tl,Rb), (Tl,K)] iron-selenide superconductors
Source: PHYSICAL REVIEW B Volume: 84 Issue: 11 Article Number: 115117 DOI:
10.1103/PhysRevB.84.115117 Published: SEP 19 2011
Times Cited: 20 (from Web of Science)

196. Author(s): Zhu, Jian-Xin; Yu, Rong; Balatsky, A. V.; et al., Title: Local Electronic Structure of a Single Nonmagnetic Impurity as a Test of the Pairing Symmetry of Electrons in (K, Tl)FexSe2 Superconductors
Source: PHYSICAL REVIEW LETTERS Volume: 107 Issue: 16 Article Number: 167002
DOI: 10.1103/PhysRevLett.107.167002 Published: OCT 14 2011

Times Cited: 9 (from Web of Science)

197. Author(s): Dakovski, Georgi L.; Li, Yinwan; Gilbertson, Steve M.; et al., Title: Anomalous femtosecond quasiparticle dynamics of hidden order state in URu₂Si₂

Source: PHYSICAL REVIEW B Volume: 84 Issue: 16 Article Number: 161103 DOI: 10.1103/PhysRevB.84.161103 Published: OCT 14 2011

Times Cited: 14 (from Web of Science)

198. Author(s): Hamidian, Mohammad H.; Schmidt, Andrew R.; Firmo, Ines A.; et al., Title: How Kondo-holes create intense nanoscale heavy-fermion hybridization disorder

Source: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA Volume: 108 Issue: 45 Pages: 18233-18237 DOI: 10.1073/pnas.1115027108 Published: NOV 8 2011

Times Cited: 10 (from Web of Science)

199. Author(s): Su, Jung-Jung; Graf, Matthias J.; Balatsky, Alexander V., Title: The role of glassy dynamics in the anomaly of the dielectric function of solid helium

Source: NEW JOURNAL OF PHYSICS Volume: 13 Article Number: 113024 DOI: 10.1088/1367-2630/13/11/113024 Published: NOV 18 2011

Times Cited: 1 (from Web of Science)

200. Author(s): Arpornthip, T.; Balatsky, A. V.; Graf, M. J.; et al., Title: Influence of elastic deformations on the supersolid transition

Source: PHYSICAL REVIEW B Volume: 84 Issue: 17 Article Number: 174304 DOI: 10.1103/PhysRevB.84.174304 Published: NOV 23 2011

Times Cited: 3 (from Web of Science)

201. Author(s): Haraldsen, J. T.; Dubi, Y.; Curro, N. J., Balatsky; et al., Title: Hidden-order pseudogap in URu₂Si₂

Source: PHYSICAL REVIEW B Volume: 84 Issue: 21 Article Number: 214410 DOI: 10.1103/PhysRevB.84.214410 Published: DEC 5 2011

Times Cited: 9 (from Web of Science)

*202. Author(s): Balatsky, Alexander V.; Nishijima, Mitsuaki; Manassen, Yishay, Title: Electron spin resonance-scanning tunneling microscopy

Source: ADVANCES IN PHYSICS Volume: 61 Issue: 2 Pages: 117-152 DOI: 10.1080/00018732.2012.668775 Published: 2012

Times Cited: 2 (from Web of Science)

203. Author(s): Saginova, E. A.; Gallvantov, M. G.; Balatsky, A. V.; et al., Title: REMODELING OF CARDIOVASCULAR SYSTEM AND DEVELOPMENT OF CHRONIC KIDNEY DISEASE IN PATIENTS WITH METABOLIC SYNDROME AND OBESITY: ROLE OF GENES ENOS, SUBUNIT P22-PHOX OF NADPH-OXIDASE AND MTHFR

Source: TERAPEVTICHESKII ARKHIV Volume: 84 Issue: 6 Pages: 26-31 Published: 2012

Times Cited: 0 (from Web of Science)

204. Author(s): Zhou, Caizhi; Su, Jung-jung; Graf, Matthias J., Balatsky; et al., Title: Dislocation-induced anomalous softening of solid helium

Source: PHILOSOPHICAL MAGAZINE LETTERS Volume: 92 Issue: 11 Pages: 608-616
DOI: 10.1080/09500839.2012.704415 Published: 2012
Times Cited: 5 (from Web of Science)

205. Author(s): Ahmed, Towfiq; Kilina, Svetlana; Das, Tanmoy, Balatsky; et al., Title: Electronic Fingerprints of DNA Bases on Graphene
Source: NANO LETTERS Volume: 12 Issue: 2 Pages: 927-931 DOI: 10.1021/nl2039315
Published: FEB 2012
Times Cited: 7 (from Web of Science)

206. Author(s): Black-Schaffer, Annica M.; Balatsky, Alexander V., Title: Strong potential impurities on the surface of a topological insulator
Source: PHYSICAL REVIEW B Volume: 85 Issue: 12 Article Number: 121103 DOI: 10.1103/PhysRevB.85.121103 Published: MAR 14 2012
Times Cited: 14 (from Web of Science)

207. Author(s): She, Jian-Huang; Balatsky, Alexander V., Title: Noncontact Friction and Relaxational Dynamics of Surface Defects
Source: PHYSICAL REVIEW LETTERS Volume: 108 Issue: 13 Article Number: 136101
DOI: 10.1103/PhysRevLett.108.136101 Published: MAR 28 2012
Times Cited: 2 (from Web of Science)

208. Author(s): Haraldsen, Jason T.; Woelfle, Peter; Balatsky, Alexander V., Title: Understanding the electric-field enhancement of the superconducting transition temperature for complex oxide interfaces
Source: PHYSICAL REVIEW B Volume: 85 Issue: 13 Article Number: 134501 DOI: 10.1103/PhysRevB.85.134501 Published: APR 2 2012
Times Cited: 1 (from Web of Science)

210. Author(s): Fransson, J.; Balatsky, A. V., Title: Imaging spin-inelastic Friedel oscillations emerging from magnetic impurities
Source: PHYSICAL REVIEW B Volume: 85 Issue: 16 Article Number: 161401 DOI: 10.1103/PhysRevB.85.161401 Published: APR 5 2012
Times Cited: 2 (from Web of Science)

211. Author(s): Zhu, Jian-Xin; Julien, Jean-Pierre; Dubi, Y.; et al., Title: Local Electronic Structure and Fano Interference in Tunneling into a Kondo Hole System
Source: PHYSICAL REVIEW LETTERS Volume: 108 Issue: 18 Article Number: 186401
DOI: 10.1103/PhysRevLett.108.186401 Published: APR 30 2012
Times Cited: 2 (from Web of Science)

212. Author(s): Das, Tanmoy; Balatsky, A. V., Title: Testing the sign-changing superconducting gap in iron-based superconductors with quasiparticle interference and neutron scattering
Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 24 Issue: 18 Article Number: 182201 DOI: 10.1088/0953-8984/24/18/182201 Published: MAY 9 2012
Times Cited: 1 (from Web of Science)

213. Author(s): Alpichshev, Zhanybek; Biswas, Rudro R.; Balatsky, Alexander V.; et al., Title: STM Imaging of Impurity Resonances on Bi₂Se₃
Source: PHYSICAL REVIEW LETTERS Volume: 108 Issue: 20 Article Number: 206402
DOI: 10.1103/PhysRevLett.108.206402 Published: MAY 15 2012

Times Cited: 16 (from Web of Science)

214. Author(s): Kwon, Yong Seung; Hong, Jong Beom; Jang, Yu Ran; et al., Title: Evidence of a pseudogap for superconducting iron-pnictide $\text{Ba}_{0.6+\delta}\text{K}_{0.4-\delta}\text{Fe}_2\text{As}_2$ single crystals from optical conductivity measurements

Source: NEW JOURNAL OF PHYSICS Volume: 14 Article Number: 063009 DOI:

10.1088/1367-2630/14/6/063009 Published: JUN 7 2012

Times Cited: 2 (from Web of Science)

215. Author(s): Das, Tanmoy; Markiewicz, R. S.; Bansil, A.; et al., Title: Visualizing electron pockets in cuprate superconductors

Source: PHYSICAL REVIEW B Volume: 85 Issue: 22 Article Number: 224535 DOI:

10.1103/PhysRevB.85.224535 Published: JUN 29 2012

Times Cited: 3 (from Web of Science)

216. Author(s): She, Jian-Huang; Balatsky, Alexander V., Title: Berezinskii-Kosterlitz-Thouless Transition to the Superconducting State of Heavy-Fermion Superlattices

Source: PHYSICAL REVIEW LETTERS Volume: 109 Issue: 7 Article Number: 077002

DOI: 10.1103/PhysRevLett.109.077002 Published: AUG 16 2012

Times Cited: 2 (from Web of Science)

217. Author(s): Black-Schaffer, Annica M.; Balatsky, Alexander V., Title: Subsurface impurities and vacancies in a three-dimensional topological insulator

Source: PHYSICAL REVIEW B Volume: 86 Issue: 11 Article Number: 115433 DOI:

10.1103/PhysRevB.86.115433 Published: SEP 20 2012

Times Cited: 1 (from Web of Science)

218. Author(s): Black-Schaffer, Annica M.; Balatsky, Alexander V., Title: Odd-frequency superconducting pairing in topological insulators

Source: PHYSICAL REVIEW B Volume: 86 Issue: 14 Article Number: 144506 DOI:

10.1103/PhysRevB.86.144506 Published: OCT 5 2012

Times Cited: 4 (from Web of Science)

219. Author(s): Gadagkar, V.; Pratt, E. J.; Hunt, B.; et al., Title: Generalized Rotational Susceptibility Studies of Solid He-4

Source: JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 169 Issue: 3-4 Pages:

180-196 DOI: 10.1007/s10909-012-0650-3 Part: 2 Published: NOV 2012

Times Cited: 1 (from Web of Science)

220. Author(s): Yang, Huan; Wang, Zhenyu; Fang, Delong; et al, Title: Unexpected weak spatial variation in the local density of states induced by individual Co impurity atoms in superconducting $\text{Na}(\text{Fe}_{1-x}\text{Co}_x)\text{As}$ crystals revealed by scanning tunneling spectroscopy

Source: PHYSICAL REVIEW B Volume: 86 Issue: 21 Article Number: 214512 DOI:

10.1103/PhysRevB.86.214512 Published: DEC 20 2012

Times Cited: 4 (from Web of Science)

221. Author(s): She, Jian-Huang; Fransson, Jonas; Bishop, A. R.; et al., Title: Inelastic Electron Tunneling Spectroscopy for Topological Insulators

Source: PHYSICAL REVIEW LETTERS Volume: 110 Issue: 2 Article Number: 026802

DOI: 10.1103/PhysRevLett.110.026802 Published: JAN 9 2013

Times Cited: 1 (from Web of Science)

222. Author(s): Fernandes, R. M.; Haraldsen, J. T.; Woelfle, P.; et al., Title: Two-band superconductivity in doped SrTiO₃ films and interfaces
Source: PHYSICAL REVIEW B Volume: 87 Issue: 1 Article Number: 014510 DOI: 10.1103/PhysRevB.87.014510 Published: JAN 22 2013
Times Cited: 4 (from Web of Science)
223. Author(s): Schlenk, T.; Bianchi, M.; Koleini, M.; et al., Title: Controllable Magnetic Doping of the Surface State of a Topological Insulator
Source: PHYSICAL REVIEW LETTERS Volume: 110 Issue: 12 Article Number: 126804 DOI: 10.1103/PhysRevLett.110.126804 Published: MAR 22 2013
Times Cited: 1 (from Web of Science)
224. Author(s): Huang, Zhoushen; Das, Tanmoy; Balatsky, Alexander V.; et al., Title: Stability of Weyl metals under impurity scattering
Source: PHYSICAL REVIEW B Volume: 87 Issue: 15 Article Number: 155123 DOI: 10.1103/PhysRevB.87.155123 Published: APR 11 2013
Times Cited: 1 (from Web of Science)
225. Author(s): Liu, Y. H.; Xiong, J.; Haraldsen, J. T.; et al., Title: Tuning the electronic properties of ultrathin La_{0.7}Sr_{0.3}MnO₃ films by interfacing with superconducting EuBa₂Cu₃O_{7-δ}
Source: PHYSICAL REVIEW B Volume: 87 Issue: 16 Article Number: 165140 DOI: 10.1103/PhysRevB.87.165140 Published: APR 30 2013
Times Cited: 0 (from Web of Science)
226. Author(s): Nussinov, Zohar; Johnson, Patrick; Graf, Matthias J.; et al., Title: Mapping between finite temperature classical and zero temperature quantum systems: Quantum critical jamming and quantum dynamical heterogeneities
Source: PHYSICAL REVIEW B Volume: 87 Issue: 18 Article Number: 184202 DOI: 10.1103/PhysRevB.87.184202 Published: MAY 15 2013
Times Cited: 0 (from Web of Science)
227. Author(s): Das, Tanmoy; Balatsky, A. V., Title: Engineering three-dimensional topological insulators in Rashba-type spin-orbit coupled heterostructures
Source: NATURE COMMUNICATIONS Volume: 4 Article Number: 1972 DOI: 10.1038/ncomms2972 Published: JUN 2013
Times Cited: 1 (from Web of Science)
228. Author(s): Fransson, J.; She, J. -H.; Pietronero, L.; et al., Title: Inelastic electron tunneling spectroscopy at local defects in graphene
Source: PHYSICAL REVIEW B Volume: 87 Issue: 24 Article Number: 245404 DOI: 10.1103/PhysRevB.87.245404 Published: JUN 3 2013
Times Cited: 0 (from Web of Science)
229. Author(s): Black-Schaffer, Annica M.; Balatsky, Alexander V., Title: Proximity-induced unconventional superconductivity in topological insulators
Source: PHYSICAL REVIEW B Volume: 87 Issue: 22 Article Number: 220506 DOI: 10.1103/PhysRevB.87.220506 Published: JUN 24 2013
Times Cited: 1 (from Web of Science)

230. Author(s): Zhou, Caizhi; Su, Jung-Jung; Graf, Matthias J.; et al., Title: Plastic response of dislocation glide in solid helium under dc strain-rate loading
Source: PHYSICAL REVIEW B Volume: 88 Issue: 2 Article Number: 024513 DOI: 10.1103/PhysRevB.88.024513 Published: JUL 24 2013
Times Cited: 2 (from Web of Science)

231. Author(s): Zhang, Chenglin; Li, H. -F.; Song, Yu; et al., Title: Distinguishing s(+/-) and s(++) electron pairing symmetries by neutron spin resonance in superconducting NaFe_{0.935}Co_{0.045}As
Source: PHYSICAL REVIEW B Volume: 88 Issue: 6 Article Number: 064504 DOI: 10.1103/PhysRevB.88.064504 Published: AUG 9 2013
Times Cited: 0 (from Web of Science)

232. Author(s): Balatsky, A. V.; Graf, M. J.; Nussinov, Z.; et al., Title: Defects and Glassy Dynamics in Solid He-4: Perspectives and Current Status
Source: JOURNAL OF LOW TEMPERATURE PHYSICS Volume: 172 Issue: 5-6 Pages: 388-421 DOI: 10.1007/s10909-012-0766-5 Part: 3 Published: SEP 2013
Times Cited: 1 (from Web of Science)

233. Author(s): Borysov, Stanislav S.; Platz, Daniel; de Wijn, Astrid S.; et al., Title: Reconstruction of tip-surface interactions with multimodal intermodulation atomic force microscopy
Source: PHYSICAL REVIEW B Volume: 88 Issue: 11 Article Number: 115405 DOI: 10.1103/PhysRevB.88.115405 Published: SEP 3 2013
Times Cited: 0 (from Web of Science)

234. Author(s): Zhou, C.; Reichhardt, C.; Graf, M. J.; et al., Title: Comment on "Giant Plasticity of a Quantum Crystal"
Source: PHYSICAL REVIEW LETTERS Volume: 111 Issue: 11 Article Number: 119601 DOI: 10.1103/PhysRevLett.111.119601 Published: SEP 13 2013
Times Cited: 1 (from Web of Science)

235. Author(s): Spaldin, Nicola A.; Fechner, Michael; Bousquet, Eric; et al., Title: Monopole-based formalism for the diagonal magnetoelectric response
Source: PHYSICAL REVIEW B Volume: 88 Issue: 9 Article Number: 094429 DOI: 10.1103/PhysRevB.88.094429 Published: SEP 23 2013
Times Cited: 0 (from Web of Science)

236. Author(s): Shirer, K. R.; Haraldsen, J. T.; Dioguardi, A. P.; et al., Title: Nuclear magnetic resonance studies of pseudospin fluctuations in URu₂Si₂
Source: PHYSICAL REVIEW B Volume: 88 Issue: 9 Article Number: 094436 DOI: 10.1103/PhysRevB.88.094436 Published: SEP 26 2013
Times Cited: 0 (from Web of Science)

237. Author(s): Black-Schaffer, Annica M.; Balatsky, Alexander V., Title: Odd-frequency superconducting pairing in multiband superconductors
Source: PHYSICAL REVIEW B Volume: 88 Issue: 10 Article Number: 104514 DOI: 10.1103/PhysRevB.88.104514 Published: SEP 27 2013
Times Cited: 0 (from Web of Science)

238. Author(s): Das, Tanmoy; Balatsky, A. V., Title: Origin of pressure induced second superconducting dome in $AyFe(2-x)Se(2)$ [$A = K, (Tl, Rb)$]
Source: NEW JOURNAL OF PHYSICS Volume: 15 Article Number: 093045 DOI: 10.1088/1367-2630/15/9/093045 Published: SEP 30 2013
Times Cited: 0 (from Web of Science)
239. Author(s): Kaloni, T.P.; Balatsky, A.V.; Schwingenschlogl, U., Title: Substrate-enhanced superconductivity in Li-decorated graphene
Source: EPL Volume: 104 Issue: 4 Article Number: 47013 DOI: 10.1209/0295-5075/104/47013 Published: NOV 2013
Times Cited: 3 (from Web of Science)
240. Author(s): Mancarella, F.; Balatsky, A.V.; Wallin, M.; Rosengren, A.
Title: Angular momentum blockade in nanoscale high-T-c superconducting grains
Source: SUPERCONDUCTOR SCIENCE & TECHNOLOGY Volume: 26 Issue: 12 Article Number: 125014 DOI: 10.1088/0953-2048/26/12/125014 Published: DEC 2013
Times Cited: 0 (from Web of Science)
241. Author(s): Stokes, J.D.; Dahal, H.P.; Balatsky, A.V.; Bedell, K.S., Title: The virial theorem in graphene and other Dirac materials
Source: PHILOSOPHICAL MAGAZINE LETTERS Volume: 93 Issue: 12 Pages: 672-679 DOI: 10.1080/09500839.2013.838006 Published: DEC 1 2013
Times Cited: 0 (from Web of Science)
242. Author(s): Huang, Z.S.; Arovas, D.P.; Balatsky, A.V., Title: Impurity scattering in Weyl semimetals and their stability classification
Source: NEW JOURNAL OF PHYSICS Volume: 15 Article Number: 123019 DOI: 10.1088/1367-2630/15/12/123019 Published: DEC 10 2013
Times Cited: 1 (from Web of Science)
243. Author(s): Wehling, T. O.; Black-Schaffer, A. M.; Balatsky, A. V., Title: Dirac materials
Source: ADVANCES IN PHYSICS Volume: 63 Issue: 1 Pages: 1-76 DOI: 10.1080/00018732.2014.927109 Published: 2014
Times Cited: 0 (from Web of Science)
244. Author(s): Ahmed, T.; Albers, R. C.; Balatsky, A. V.; Friedrich, C.; Zhu, J.X., Title: GW quasiparticle calculations with spin-orbit coupling for the light actinides
Source: PHYSICAL REVIEW B Volume: 89 Issue: 3 Article Number: 035104 DOI: 10.1103/PhysRevB.89.035104 Published: JAN 6 2014
Times Cited: 0 (from Web of Science)
245. Author(s): Fang, K.; Fernando, G. W.; Balatsky, A. V.; Kocharian, A. N.; Palandage, K., Title: Pairing modulations and phase separation instabilities in $Bi_{2-x}Sr_xCaCu_2O_{8+\delta}$
Source: Physics Letters A Volume: 378 Issue: 3 Pages: 243-8 DOI: 10.1016/j.physleta.2013.11.006 Published: 10 Jan. 2014
Times Cited: 0 (from Web of Science)
246. Author(s): Ahmed, T.; Haraldsen, J. T.; Rehr, J. J.; Di Ventura, M.; Schuller, I.; Balatsky, A.V., Title: Correlation dynamics and enhanced signals for the identification of serial biomolecules and DNA bases

Source: NANOTECHNOLOGY Volume: 25 Issue: 12 Article Number: 125705 DOI: 10.1088/0957-4484/25/12/125705 Published: MAR 28 2014
Times Cited: 1 (from Web of Science)

247. Author(s): Triola, C.; Rossi, E.; Balatsky, A.V., Title: Effect of a spin-active interface on proximity-induced superconductivity in topological insulators
Source: PHYSICAL REVIEW B Volume: 89 Issue: 16 Article Number: 165309
DOI: 10.1103/PhysRevB.89.165309 Published: APR 21 2014
Times Cited: 0 (from Web of Science)

248. Author(s): Abergel, D. S. L.; Edge, J. M.; Balatsky, A. V., Title: The role of spin-orbit coupling in topologically protected interface states in Dirac materials
Source: NEW JOURNAL OF PHYSICS Volume: 16 Article Number: 065012 DOI: 10.1088/1367-2630/16/6/065012 Published: JUN 24 2014
Times Cited: 0 (from Web of Science)

249. Author(s): Singh, S.; Haraldsen, J.T.; Xiong, J.; Choi, E.M.; Lu, P.; Yi, D.; Wen, X.D.; Liu, J.; Wang, H.; Bi, Z.; Yu, P.; Fitzsimmons, M.R.; MacManus-Driscoll, J.L.; Ramesh, R.; Balatsky, A.V.; Jian-Xin Zhu; Jia, Q.X., Title: Induced Magnetization in La_{0.7}Sr_{0.3}MnO₃/BiFeO₃ Superlattices
Source: Physical Review Letters Volume: 113 Issue: 4 Pages: 047204 (5 pp.)
DOI: 10.1103/PhysRevLett.113.047204 Published: 25 July 2014
Times Cited: 0 (from Web of Science)

250. Author(s): Ahmed, T.; Haraldsen, J.T.; Zhu, J.X.; Balatsky, A.V., Title: Next-Generation Epigenetic Detection Technique: Identifying Methylated Cytosine Using Graphene Nanopore
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS Volume: 5 Issue: 15 Pages: 2601-2607 DOI: 10.1021/jz501085e Published: AUG 7 2014
Times Cited: 0 (from Web of Science)

251. Author(s): Borysov SS, Balatsky AV (2014), Title: Cross-Correlation Asymmetries and Causal Relationships between Stock and Market Risk. PLoS ONE 9(8): e105874.
doi:10.1371/journal.pone.0105874

B. Other Work

1. Author(s): BALATSKY, AV; ABRAHAMS, E; SCALAPINO, DJ, BALATSKY, et al., Title: PROPERTIES OF ODD GAP SUPERCONDUCTORS, Conference: International Conference on Strongly Correlated Electron Systems (SCES 93) Location: UNIV CALIF SAN DIEGO, SAN DIEGO, CA Date: AUG 16-19, 1993
Sponsor(s): UNIV CALIF SAN DIEGO, INST PURE & APPL PHYS SCI; UNIV CALIF SAN DIEGO, AMER PHYS SCI; INST MECH & MAT; INT SCI FDN, WASHINGTON, DC; LOS ALAMOS NATL LAB; NATL HIGH MAGNET FIELD LAB; US DOE; US NATL SCI FDN
Source: PHYSICA B Volume: 199 Pages: 363-365 DOI: 10.1016/0921-4526(94)91839-2
Published: APR 1994
Times Cited: 6 (from Web of Science)

2. Author(s): MIGLIORI, A; SARRAO, JL; MANDRUS, D, BALATSKY; et al., Title: ULTRASOUND STUDIES OF U₂N₁₇ AND UCU₅, Conference: International Conference on

Strongly Correlated Electron Systems (SCES 93) Location: UNIV CALIF SAN DIEGO, SAN DIEGO, CA Date: AUG 16-19, 1993

Sponsor(s): UNIV CALIF SAN DIEGO, INST PURE & APPL PHYS SCI; UNIV CALIF SAN DIEGO, AMER PHYS SCI; INST MECH & MAT; INT SCI FDN, WASHINGTON, DC; LOS ALAMOS NATL LAB; NATL HIGH MAGNET FIELD LAB; US DOE; US NATL SCI FDN

Source: PHYSICA B Volume: 199 Pages: 36-38 DOI: 10.1016/0921-4526(94)91729-9

Published: APR 1994

3. Author(s): Movshovich, R; Jaime, M; Hubbard, MA, Balatsky; et al., Title: Low-temperature phase transition in $\text{Bi}_2\text{Sr}_2\text{Ca}(\text{Cu}_{1-x}\text{Ni}_x)_2\text{O}_8$ Conference: International Conference on Spectroscopies in Novel Superconductors (SNS'97) Location: CAPE COD, MASSACHUSETTS Date: SEP 14-18, 1997

Source: JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS Volume: 59 Issue: 10-12

Pages: 2100-2104 DOI: 10.1016/S0022-3697(98)00182-6 Published: OCT-DEC 1998

Times Cited: 5 (from Web of Science)

4. Author(s): Balatsky, AV, Title: Spontaneous time reversal and parity breaking in a $d(x^2-y^2)$ -wave superconductor with magnetic impurities

Conference: International Conference on Spectroscopies in Novel Superconductors (SNS'97)

Location: CAPE COD, MASSACHUSETTS Date: SEP 14-18, 1997

Source: JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS Volume: 59 Issue: 10-12

Pages: 1689-1693 DOI: 10.1016/S0022-3697(98)00084-5 Published: OCT-DEC 1998

5. Author(s): Balatsky, AV; Movshovich, R, Title: Marginal stability of d-wave superconductors

Conference: International Conference on Strongly Correlated Electron Systems (SCES 98)

Location: PARIS, FRANCE Date: JUL 15-18, 1998

Sponsor(s): CNRS; Minist Educ Natl Rech Technol; CEA; Minist Affaires Etrangeres; DGA; Univ Paris-Sud

Source: PHYSICA B-CONDENSED MATTER Volume: 259-61 Pages: 446-448 DOI:

10.1016/S0921-4526(98)00750-9 Published: JAN 1999

Times Cited: 6 (from Web of Science)

6. Author(s): Graf, MJ; Balatsky, AV; Sauls, JA, Title: Spin-orbit scattering in $d(x^2-y^2)$ superconductors

Conference: 2nd International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials (New3SC-2) Location: LAS VEGAS, NEVADA Date: MAY 31-JUN 04, 1999

Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 13 Issue: 29-31

Pages: 3513-3515 DOI: 10.1142/S0217979299003325 Published: DEC 20 1999

Times Cited: 1 (from Web of Science)

7. Author(s): Balatsky, AV, Title: Field-induced $d(x^2-y^2)+id(xy)$ state and marginal stability of high- T_c superconductor

Conference: 1st Euroconference on Vortex Matter in Superconductors at Extreme Scales and Conditions Location: IRAKLION, GREECE Date: SEP 18-24, 1999

Sponsor(s): VORTEX; ESF

Source: PHYSICA C Volume: 332 Issue: 1-4 Pages: 337-342 DOI: 10.1016/S0921-4534(99)00697-8 Published: MAY 2000

Times Cited: 0 (from Web of Science)

8. Author(s): Jaime, M; Movshovich, R; Balatsky, AV; et al., Title: Heat capacity of Ni-doped Bi₂Sr₂CaCu₂O₈ single crystals
Conference: 22nd International Conference on Low Temperature Physics Location: HELSINKI UNIV TECHNOL, HELSINKI, FINLAND Date: AUG 04-11, 1999
Sponsor(s): Commiss C5 low Temp Phys; Int Union Pure & Appl Phys; Acad Finland; Helsinki Univ Technol; Int Assoc Promot Sci; Oxford Instruments Ltd; Fortum Corp; Nokia Grp; Finnair Ltd; Datex Engstrom Ltd; Finnish Phys Soc; Picker Nordstar Ltd; Neuromag Ltd; SAP Finland Ltd; Espoo Elect Ltd; Outokumpu Ltd; City Espoo; Finnish Acad Sci & Letters; DCA-Instruments Ltd; Vaisala Ltd
Source: PHYSICA B Volume: 284 Pages: 1069-1070 DOI: 10.1016/S0921-4526(99)02417-5
Part: 1 Published: JUL 2000
Times Cited: 1 (from Web of Science)

9. Author(s): Eroles, J; Ortiz, G; Balatsky, AV; et al., Title: Microscopic scenario for striped superconductors
Conference: International Conference on Materials and Mechanisms of Superconductivity High Temperature Superconductors VI Location: HOUSTON, TEXAS Date: FEB 20-25, 2000
Source: PHYSICA C Volume: 341 Pages: 1763-1766 DOI: 10.1016/S0921-4534(00)01011-X
Part: 3 Published: NOV 2000
Times Cited: 1 (from Web of Science)

10. Author(s): Latyshev, YI; Pavlenko, VN; Kim, SJ, Balatsky; et al., Title: Interlayer tunneling of quasiparticles and Cooper pairs in Bi-2212 single crystal whiskers
Conference: International Conference on Materials and Mechanisms of Superconductivity High Temperature Superconductors VI Location: HOUSTON, TEXAS Date: FEB 20-25, 2000
Source: PHYSICA C Volume: 341 Pages: 1499-1502 DOI: 10.1016/S0921-4534(00)01313-7
Part: 3 Published: NOV 2000
Times Cited: 5 (from Web of Science)

11. Author(s): Balatsky, AV; Kumar, P; Schrieffer, JR, Title: Clapping modes in unconventional superconductors
Conference: International Conference on Materials and Mechanisms of Superconductivity High Temperature Superconductors VI Location: HOUSTON, TEXAS Date: FEB 20-25, 2000
Source: PHYSICA C Volume: 341 Pages: 807-810 DOI: 10.1016/S0921-4534(00)00700-0
Part: 2 Published: NOV 2000
Times Cited: 0 (from Web of Science)

12. Author(s): Martin, I; Balatsky, AV, Title: Local structure of impurity states in d-wave superconductors
Conference: International Conference on Materials and Mechanisms of Superconductivity High Temperature Superconductors VI Location: HOUSTON, TEXAS Date: FEB 20-25, 2000
Source: PHYSICA C Volume: 341 Pages: 125-128 DOI: 10.1016/S0921-4534(00)00412-3
Part: 1 Published: NOV 2000
Times Cited: 3 (from Web of Science)

13. Author(s): Martin, I; Ortiz, G; Balatsky, AV; et al., Title: Competing quantum orderings in cuprate superconductors: A minimal model
Conference: 3rd International Conference on Stripes and High T_c Superconductivity (STRIPES 2000) Location: UNIV ROME LA SPIENZA, ROME, ITALY Date: SEP 25-30, 2000
Sponsor(s): Univ Roma La Sapienza; Ist Nazl Fis Materia; CNR, Grp Nazl Strutta Materia

Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 14 Issue: 29-31
Pages: 3567-3576 DOI: 10.1142/S0217979200003630 Published: DEC 20 2000
Times Cited: 44 (from Web of Science)

14. Author(s): Batista, CD; Ortiz, G; Balatsky, AV, Title: Common magnetic origin of the resonance peak and incommensuration in high-T_c superconductors
Conference: 3rd International Conference on Stripes and High T_c Superconductivity (STRIPES 2000) Location: UNIV ROME LA SPIENZA, ROME, ITALY Date: SEP 25-30, 2000
Sponsor(s): Univ Roma La Sapienza; Ist Nazl Fis Materia; CNR, Grp Nazl Struttra Materia
Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 14 Issue: 29-31
Pages: 3334-3341 DOI: 10.1142/S0217979200003587 Published: DEC 20 2000
Times Cited: 3 (from Web of Science)

15. Author(s): Martin, I; Ortiz, G; Eroles, J, Balatsky; et al., Title: The physics of inhomogeneous striped superconductors
Conference: International Conference on Magnetism Location: RECIFE, BRAZIL Date: AUG 06-11, 2000
Sponsor(s): CNPq; FINEP; CAPES; FACEPE; FAPESP; FAPERJ
Source: JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: 226 Special Issue: SI Pages: 355-357 DOI: 10.1016/S0304-8853(00)01054-4 Part: 1 Published: MAY 2001
Times Cited: 0 (from Web of Science)

16. Author(s): Eroles, J; Ortiz, G; Balatsky, AV; et al., Title: Pairing in inhomogeneous superconductors
Conference: 10th International Conference on Recent Progress in Many-Body Theories (RPMBT-10) Location: UNIV WASHINGTON, SEATTLE, WASHINGTON Date: SEP 10-15, 1999
Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 15 Issue: 10-11
Pages: 1613-1616 DOI: 10.1142/S0217979201006112 Published: MAY 10 2001
Times Cited: 1 (from Web of Science)

17. Author(s): Martin, I; Balatsky, AV, Title: Doping-induced inhomogeneity in high-T_c superconductors
Conference: 13th International Symposium on Superconductivity (ISS 2000) Location: TOKYO, JAPAN Date: OCT 14-16, 2000
Source: PHYSICA C Volume: 357 Pages: 46-48 DOI: 10.1016/S0921-4534(01)00192-7 Part: 1 Published: AUG 2001
Times Cited: 32 (from Web of Science)

18. Author(s): Ortiz, G; Batista, CD; Balatsky, A, Title: Resonance peak and incommensurate response as direct manifestations of magnetism
Conference: 3rd International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials Location: HONOLULU, HAWAII Date: JAN 15-19, 2001
Source: PHYSICA C Volume: 364 Pages: 549-552 DOI: 10.1016/S0921-4534(01)00849-8 Published: NOV 2001
Times Cited: 1 (from Web of Science)

19. Author(s): Balatsky, AV; Smakov, J; Martin, I, Title: Potential applications of a scanning tunnelling microscope with a superconducting tip

Conference: International Conference on Material for Advanced Technologies Location: SINGAPORE, SINGAPORE Date: JUL 01-06, 2001
Source: SUPERCONDUCTOR SCIENCE & TECHNOLOGY Volume: 15 Issue: 3 Pages: 446-450 Article Number: PII S0953-2048(02)28023-9 DOI: 10.1088/0953-2048/15/3/332
Published: MAR 2002
Times Cited: 3 (from Web of Science)

20. Author(s): Klestova, ZS; Balatsky, VN; Golubets, RA, Title: Leucosis virus influence on animals cells genome
Conference: European-Society-of-Human-Genetics European Human Genetics Conference in Conjunction With European Meeting on Psychosocial Aspects of Genetics Location: STRASBOURG, FRANCE Date: MAY 25-28, 2002
Sponsor(s): European Soc Human Genet
Source: EUROPEAN JOURNAL OF HUMAN GENETICS Volume: 10 Supplement: 1 Pages: 103-103 Published: MAY 2002
Times Cited: 0 (from Web of Science)

21. Author(s): Balatsky, AV, Title: Magnetic field and impurity effects in pseudogap state of cuprates
Conference: 4th Conference on Physical Phenomena at High Magnetic Fields Location: SANTA FE, NEW MEXICO Date: OCT 19-25, 2001
Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 16 Issue: 20-22 Pages: 3133-3133 DOI: 10.1142/S0217979202013754 Published: AUG 30 2002
Times Cited: 0 (from Web of Science)

22. Author(s): Nussinov, Z; Crommie, M; Balatsky, AV, Title: Noise spectroscopy of a single spin with spin polarized STM
Book Editor(s): Laudon, M; Romanowicz, B
Conference: Nanotechnology Conference and Trade Show (Nanotech 2003) Location: San Francisco, CA Date: FEB 23-27, 2003
Sponsor(s): Def Adv Res Projects Agcy; Ardesta, LLC; Swiss Nanotechnol Initiat; Belgian Nanotechnol Initiat; Oppenheimer wolff & Donnelly LLP; Accelrys Inc; CIPHERGEN Biosyst Inc; Motorola Inc; ANSYS Inc; COMSOL; Thomson, Derwent; M&W Zander US Operat Inc; Small Times Media
Source: NANOTECH 2003, VOL 3 Pages: 78-81 Published: 2003
Times Cited: 0 (from Web of Science)

23. Author(s): Balatsky, A; Zhu, JX, Title: Quantum Nyquist temperature fluctuations
Conference: 23rd International Conference on Low Temperature Physics (LT23) Location: HIROSHIMA, JAPAN Date: AUG 20-27, 2002
Sponsor(s): Int Union Pure & Appl Phys; Sci Council Japan; Phys Soc Japan; Japan Soc Appl Phys; Cryogen Assoc Japan
Source: PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES Volume: 18 Issue: 1-3 Pages: 341-342 DOI: 10.1016/S1386-9477(02)01080-9 Published: MAY 2003
Times Cited: 0 (from Web of Science)

24. Author(s): Balatsky, AV; Zhu, JX, Title: Competing orders and field induction of d+id' state
Conference: 23rd International Conference on Low Temperature Physics (LT23) Location: HIROSHIMA, JAPAN Date: AUG 20-27, 2002

Sponsor(s): Int Union Pure & Appl Phys; Sci Council Japan; Phys Soc Japan; Japan Soc Appl Phys; Cryogen Assoc Japan
Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 388 Pages: 25-28 DOI: 10.1016/S0921-4534(02)02606-0 Published: MAY 2003
Times Cited: 0 (from Web of Science)

25. Author(s): Vekhter, I; Shytov, AV; Gruzberg, IA, Balatsky; et al., Title: Tail states in superconductors with weak magnetic impurities
Conference: 23rd International Conference on Low Temperature Physics (LT23) Location: HIROSHIMA, JAPAN Date: AUG 20-27, 2002
Sponsor(s): Int Union Pure & Appl Phys; Sci Council Japan; Phys Soc Japan; Japan Soc Appl Phys; Cryogen Assoc Japan
Source: PHYSICA B-CONDENSED MATTER Volume: 329 Pages: 1446-1447 DOI: 10.1016/S0921-4526(02)02372-4 Part: 2 Published: MAY 2003
Times Cited: 2 (from Web of Science)

26. Author(s): Zhu, JX; Balatsky, AV; Sun, J; et al., Title: Effects of magnetic collective modes in the tunneling spectra of high-T-c superconductors
Conference: 4th International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials Location: SAN DIEGO, CALIFORNIA Date: JAN 16-21, 2003
Source: INTERNATIONAL JOURNAL OF MODERN PHYSICS B Volume: 17 Issue: 18-20 Pages: 3473-3478 DOI: 10.1142/S021797920302123X Part: 2 Published: AUG 10 2003
Times Cited: 0 (from Web of Science)

27. Author(s): Nussinov, Z; Zhu, JX; Balatsky, AV; et al., Title: Single spin detection and noise spectroscopy
Book Editor(s): Smulko, JM; Blanter, Y; Dykman, M; et al.
Conference: Conference on Noise and Information in Nanoelectronics, Sensors and Standards II Location: Maspalomas, SPAIN Date: MAY 26-28, 2004
Sponsor(s): SPIE
Source: NOISE AND INFORMATION IN NANO-ELECTRONICS, SENSORS, AND STANDARDS II Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE) Volume: 5472 Pages: 116-130 DOI: 10.1117/12.550788 Published: 2004
Times Cited: 0 (from Web of Science)

28. Author(s): Balatsky, AV; Abanov, A; Zhu, JX, Title: Inelastic tunneling spectroscopy in a d-wave superconductor
Conference: 7th International Conference on Materials and Mechanisms of Superconductive and High Temperature Superconductors Location: Rio de Janeiro, BRAZIL Date: MAY 25-30, 2003
Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 408 Pages: 246-247 DOI: 10.1016/j.physc.2004.02.134 Published: AUG 2004
Times Cited: 0 (from Web of Science)

29. Author(s): Crooker, SA; Rickel, DG; Balatsky, AV; et al., Title: Measuring random spin fluctuations for perturbation-free probes of spin dynamics and magnetic resonance
Book Editor(s): Svedlindh, P; Popovic, D; Weissman, MB

Conference: Conference on Fluctuations and Noise in Materials II Location: Austin, TX Date: MAY 24-25, 2005

Sponsor(s): SPIE

Source: Fluctuations and Noise in Materials II Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE) Volume: 5843 Pages: 58-65 DOI: 10.1117/12.609533 Published: 2005

Times Cited: 0 (from Web of Science)

30. Author(s): Thompson, JD; Balatsky, AV; Nicklas, M; et al., Title: Hidden order in CeMn₅

Conference: International Conference on Strongly Correlated Electron Systems (SCES 04)

Location: Karlsruhe, GERMANY Date: JUL 26-30, 2004

Source: PHYSICA B-CONDENSED MATTER Volume: 359 Pages: 392-394 DOI:

10.1016/j.physb.2005.01.073 Published: APR 30 2005

Times Cited: 0 (from Web of Science)

31. Author(s): Bang, Yunkyū; Graf, Matthias J.; Curro, Nicholas J., Balatsky; et al., Title: Theory of knight shift and spin-lattice relaxation rates of Pu-115

Book Editor(s): Sarrao, JL; Schwartz, AJ; Antonio, MR; et al.

Conference: Symposium on Actinides-Basic Science, Applications and Technology held at the 2005 MRS Fall Meeting Location: Boston, MA Date: NOV 28-DEC 01, 2005

Sponsor(s): Mat Res Soc

Source: Actinides 2005-Basic Science, Applications and Technology Book Series: MATERIALS RESEARCH SOCIETY SYMPOSIUM PROCEEDINGS Volume: 893 Pages: 143-148 Published: 2006

Times Cited: 0 (from Web of Science)

32. Author(s): Bang, Y; Balatsky, AV; Wastin, F; et al., Title: The origin of new high-temperature superconductor PuCoGa₅ and, its implications

Conference: International Conference on Strongly Correlated Electron Systems (SECES 05)

Location: Vienna, AUSTRIA Date: JUL 26-30, 2005

Source: PHYSICA B-CONDENSED MATTER Volume: 378-80 Pages: 1025-1026 DOI:

10.1016/j.physb.2006.01.446 Published: MAY 1 2006

Times Cited: 1 (from Web of Science)

33. Author(s): Curro, NJ; Caldwell, T; Bauer, ED, Balatsky; et al., Title: Unconventional superconductivity in PuCoGa₅

Conference: International Conference on Strongly Correlated Electron Systems (SECES 05)

Location: Vienna, AUSTRIA Date: JUL 26-30, 2005

Source: PHYSICA B-CONDENSED MATTER Volume: 378-80 Pages: 915-919 DOI:

10.1016/j.physb.2006.01.352 Published: MAY 1 2006

Times Cited: 5 (from Web of Science)

34. Author(s): Andreenko, E. Y.; Meshkov, A. N.; Balatsky, A. V.; et al., Title: Role of hemostatic gene polymorphisms in the early development of coronary artery disease

Conference: 14th Meeting of the International-Society-of-Atherosclerosis Location: Rome, ITALY Date: JUN 18-22, 2006

Sponsor(s): Int Soc Atheroscleros

Source: ATHEROSCLEROSIS SUPPLEMENTS Volume: 7 Issue: 3 Pages: 89-89 DOI:

10.1016/S1567-5688(06)80330-2 Published: JUN 2006

Times Cited: 0 (from Web of Science)

35. Author(s): Bang, Yunkyū; Graf, M. J.; Curro, N. J., Balatsky; et al., Title: The nuclear spin-lattice relaxation rate in the PuMGa5 materials
Conference: 17th International Conference on Magnetism (ICM 2006) Location: Kyoto, JAPAN
Date: AUG 20-25, 2006
Sponsor(s): Int Union Pure & Appl Phys
Source: JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: 310 Issue: 2
Pages: 634-636 DOI: 10.1016/j.jmmm.2006.10.277 Part: 1 Published: MAR 2007
Times Cited: 0 (from Web of Science)

36. Author(s): Grigorenko, Ilya; Fujita, K.; Lee, J., Balatsky; et al., Title: Bogoliubov angle and visualization of particle-hole mixture in superconductors
Conference: 61st Yamada Conference on Spectroscopies in Novel Superconductors Location: Sendai, JAPAN Date: AUG 20-24, 2007
Sponsor(s): Yamada Sci Fdn
Source: JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS Volume: 69 Issue: 12
Pages: 3000-3005 DOI: 10.1016/j.jpccs.2008.06.052 Published: DEC 2008
Times Cited: 0 (from Web of Science)

37. Author(s): Talbayev, D.; LaForge, A. D.; Hur, N., Balatsky; et al., Title: Dynamic investigations of multiferroics: terahertz and beyond
Book Editor(s): Tanaka, K; Ogawa, T; Hashimoto, H; et al.
Conference: 63rd Yamada Conference on Photo-Induced Phase Transition and Cooperative Phenomena (PIPT3) Location: Osaka, JAPAN Date: NOV 11-15, 2008
Source: LXIII YAMADA CONFERENCE ON PHOTO-INDUCED PHASE TRANSITION AND COOPERATIVE PHENOMENA (PIPT3) Book Series: Journal of Physics Conference Series
Volume: 148 Article Number: 012037 DOI:10.1088/1742-6596/148/1/012037 Published: 2009
Times Cited: 0 (from Web of Science)

38. Author(s): Graf, M. J.; Balatsky, A. V.; Nussinov, Z.; et al., Title: Torsional oscillators and the entropy dilemma of putative supersolid (4)He
Book Editor(s): Kes, P; Jochemsen, R
Conference: 25th International Conference on Low Temperature Physics (LT25) Location: Leiden Inst Phys, Kamerlingh Onnes Lab, Amsterdam, NETHERLANDS Date: AUG 06-13, 2008
Source: 25TH INTERNATIONAL CONFERENCE ON LOW TEMPERATURE PHYSICS (LT25), PART 3: QUANTUM GASES LIQUIDS AND SOLIDS Book Series: Journal of Physics Conference Series
Volume: 150 Article Number: 032025 DOI: 10.1088/1742-6596/150/3/032025 Part: 3 Published: 2009
Times Cited: 11 (from Web of Science)