List Of 2012 Reports

ID#	Title, First Author, and Category	Status
322	**Title:** Unprecedented Fermi Surface Spectral Resolution in the Underdoped High Tc Superconductor $YBa_2Cu_3O_{6+x}$ Obtained Using 100 Tesla Magnetic Fields **First Author:** Harrison, N., LANL, nharrison@lanl.gov **PI:** Harrison, N., LANL, nharrison@lanl.gov **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Published in** Phys. Rev. Lett. 108, 196404 (2012) **Sign. Achievement:** Yes **Director's Recommendation:** Yes, definitely **Director's Comments:** None	Edited
400	**Title:** Transition from Slow Abrikosov to Fast Moving Josephson Vortices in Iron-Pnictide Superconductors **First Author:** Moll, P.J.W, ETH Zurich, Solid State Physics, phmoll@phys.ethz.ch **PI:** Batlogg, B., ETH Zurich, Solid State Physics, batlogg@phys.ethz.ch **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Accepted by** Nature Materials **Sign. Achievement:** Yes **Director's Recommendation:** Yes, definitely **Director's Comments:** None	Edited
405	**Title:** Angular-dependent Upper Critical Field of Overdoped $Ba(Fe_{1-x}Ni_x)_2As_2$ **First Author:** Murphy, J., Ames Laboratory/ Iowa State University, Physics and Astronomy, jasonmurph@gmail.com **PI:** Prozorov, R., Ames Laboratory/ Iowa State University, Physics and Astronomy, prozorov@ameslab.gov **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation:** Yes **Director's Comments:** None	Edited
417	**Title:** Thermal Conductivity as a Probe of H_{c2} in the Cuprate Superconductor $YBa_2Cu_3O_{6.54}$ **First Author:** Doiron-Leyraud, N., Université de Sherbrooke, Physics, Nicolas.Doiron-Leyraud@USherbrooke.ca **PI:** Taillefer, L., Université de Sherbrooke, Physics, Louis.Taillefer@physique.usherbrooke.ca **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation:** Yes **Director's Comments:** None	Edited
324	**Title:** 92 T Tilted Magnetic Field Study of the Fermi Surface of the Underdoped High Tc Superconductor $YBa_2Cu_4O_8$ **First Author:** Sebastian, S.E., Cambridge University, Cavendish Lab., ses59@ac.cam.uk **PI:** Sebastian, S.E., Cambridge University, Cavendish Lab., ses59@ac.cam.uk **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** Yes **Director's Recommendation:** Yes **Director's Comments:** None	Edited
68	**Title:** On the Dual Role of the d-Electrons in Iron-Pnictides **First Author:** Gor'kov, L.P., NHMFL, FSU, gorkov@magnet.fsu.edu **PI:** Gor'kov, L.P., NHMFL, FSU, gorkov@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** CMT/E **UCGP:** No **VSP:** No **Submitted to** Phys. Rev. B **Sign. Achievement:** No **Director's Recommendation:** Yes **Director's Comments:** None	Edited

69	**Title:** Superconductivity with Extremely Large Upper Critical Fields in $Nb_2Pd_{0.81}S_5$ **First Author:** Zhang, Q., National High Magnetic Field Lab, qiuzhang@magnet.fsu.edu **PI:** Balicas, L., National High Magnetic Field Lab, balicas@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Submitted to** Scientific Reports **Sign. Achievement:** Yes **Director's Recommendation:** Yes **Director's Comments:** No edits.	Edited
70	**Title:** Unequal Role of Electronic Correlations on Different Fermi Surfaces in Multi-band Superconductors **First Author:** Gor'kov, L.P., NHMFL, FSU, gorkov@magnet.fsu.edu **PI:** Gor'kov, L.P., NHMFL, FSU, gorkov@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** CMT/E **UCGP:** No **VSP:** No **Published in** Phys. Rev. B B 86,060501(R) **Sign. Achievement:** No **Director's Recommendation:** Yes **Director's Comments:** None	Edited
76	**Title:** Evidence for an Orbital Moment in the Superconducting State of URu_2Si_2 **First Author:** Li, G, National High Magnetic Field Lab, ligang@umich.edu **PI:** Balicas, L, National High Magnetic Field Lab, balicas@hotmail.com **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Submitted to** Science **Sign. Achievement:** Yes **Director's Recommendation:** Yes **Director's Comments:** Minor text correction	Edited
88	**Title:** Magnetic Field Dependence of Charge Order in Underdoped YBCO **First Author:** Wu, T, LNCMI Grenoble, France, tao.wu@lncmi.cnrs.fr **PI:** Julien, M-H, LNCMI Grenoble, France, marc-henri.julien@lncmi.cnrs.fr **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** Yes **Director's Recommendation:** Yes **Director's Comments:** Minor text change	Edited
344	**Title:** Magnetotransport in Underdoped Cuprates **First Author:** Shi, X., NHMFL, xshi@sandia.gov **PI:** Popovic, D., NHMFL, dragana@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Published in** Nature Materials Vol. 12, 47 (2013); publ. online Nov. 18, 2012 **Sign. Achievement:** Yes **Director's Recommendation:** Yes **Director's Comments:** Group had a Nature Materials manuscript from this work	Edited
382	**Title:** Magneto-transport in Continuously Doped LSCO in the 60T LP Magnet **First Author:** Stegen, Z., FSU, Physics, stegen@magnet.fsu.edu **PI:** Bozovic, I., Brookhaven National Lab, bozovic@bnl.gov **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation:** Yes **Director's Comments:** None	Edited
161	**Title:** Doping Dependence of Upper Critical Field in $Sr(Fe_{2-x}Ni_x)As_2$ Single Crystals **First Author:** Khim, S., Seoul National University, Department of Physics and Astronomy, skhim@phya.snu.ac.kr **PI:** Kim, K. H., Seoul National University, Department of Physics and Astronomy, optopia@snu.ac.kr **Category:** Superconductivity - Basic **Facility:** DC Field Facility	Edited

	UCGP: No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation:** Yes **Director's Comments:** None	
163	**Title:** In-plane Upper Critical Field of the Iron-based Superconductor LiFeAs Probed by ^{75}As NMR Spectroscopy **First Author:** Kuehne, H.K., NHMFL, hkuehne@magnet.fsu.edu **PI:** Kuehne, H.K., NHMFL, hkuehne@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
176	**Title:** Searching for Hole Bands in Iron Pnictides Close to the Quantum Critical Point **First Author:** Coldea, A.I., Oxford University, Physics, amalia.coldea@physics.ox.ac.uk **PI:** Coldea, A.I., Oxford University, Physics, amalia.coldea@physics.ox.ac.uk **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
188	**Title:** Specific Heat to 0.4 K in High Magnetic Field of Iron Pnictide Superconductors **First Author:** Stewart, G.R., University of Florida, Physics, stewart@phys.ufl.edu **PI:** Stewart, G.R., University of Florida, Physics, stewart@phys.ufl.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Published in** Phys. Rev. B Phys. Rev. B, 86, 014513-1-7 (2012). **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
201	**Title:** Anisotropy of the Upper Critical Fields of Sr_2VO_3FeAs Single Crystal **First Author:** Kim, J.S., Pohang University of Science and Technology, Physics, js.kim@postech.ac.kr **PI:** Kim, J.S., Pohang University of Science and Technology, Physics, js.kim@postech.ac.kr **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
207	**Title:** High Field Superconducting Phase-Diagram of $Rb_{0.79}Fe_{1.69}Se_2$ **First Author:** Mun, E.D., National High Magnetic Field Lab, edmun@lanl.gov **PI:** Balicas, L., National High Magnetic Field Lab, balicas@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
211	**Title:** Upper Critical Field of Expanded Fulleride Superconductors $Cs_{3-x}Rb_xC_{60}$ Near the Mott Transition **First Author:** Kasahara, Y., University of Tokyo, Department of Physics and Quantum-Phase Electronics Center, kasahara@ap.t.u-tokyo.ac.jp **PI:** Iwasa, Y., University of Tokyo, Department of Physics and Quantum-Phase Electronics Center, iwasa@ap.t.u-tokyo.ac.jp **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited

221	**Title:** High Magnetic Field Investigation of the Collapsed Tetragonal Phase of $CaFe_2As_2$ **First Author:** Mun, E., LANL, edmun@lanl.gov **PI:** Canfield, P.C., Ames Lab/Iowa State University, Department of Physics, canfield@ameslab.gov **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
259	**Title:** Torque Magnetometry of High Temperature Superconductors in Pulsed Magnetic Fields **First Author:** Lawson, B.J., University of Michigan, Physics, bjlawson@umich.edu **PI:** Li, L., University of Michigan, Physics, luli@umich.edu **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
267	**Title:** Specific Heat and Shubinikov-de Haas Measurements in High Fields on YBa_2Cu_{37-x} **First Author:** Kemper, J.B., Florida State University, Physics, kemper@magnet.fsu.edu **PI:** Boebinger, G.S., Florida State University, Physics, gsb@magnet.fsu.edu **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
300	**Title:** Strong Enhancement of the Critical Current at the Antiferromagnetic Transition in $ErNi_2B_2C$ Single Crystals **First Author:** Weigand, M., Los Alamos National Laboratory, Materials Physics and Applications Division, weigand@lanl.gov **PI:** Maiorov, B., Los Alamos National Laboratory, Materials Physics and Applications Division, maiorov@lanl.gov **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP: Yes** **VSP:** No **Submitted to** Phys. Rev. Lett. **Sign. Achievement: Yes** **Director's Recommendation: No** **Director's Comments:** None	Edited
1	**Title:** Order by Disorder in Underdoped Cuprate Superconductors **First Author:** Hirschfeld, P.J., U. Florida, Physics, pjh@phys.ufl.edu **PI:** Hirschfeld, P.J., U. Florida, Physics, pjh@phys.ufl.edu **Category:** Superconductivity - Basic **Facility:** UF Physics **UCGP:** No **VSP:** No **Published in** Europhys. Lett. 97 47002 (2012) **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
2	**Title:** Theory of Quasiparticle Excitations in Vortices of Iron Pnictide Superconductors **First Author:** Wang, Y., U. Florida, Physics **PI:** Hirschfeld, P.J., U. Florida, Physics, pjh@phys.ufl.edu **Category:** Superconductivity - Basic **Facility:** UF Physics **UCGP:** No **VSP:** No **Published in** Phys. Rev. B 86, 014513 (2012) **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
9	**Title:** Robust Superconducting $FeSe_{0.5}Te_{0.5}$ Coated Conductors at 30 Tesla **First Author:** Si, W., BNL, Condensed Matter Physics and Materials Science, wds@bnl.gov **PI:** Li, Q., BNL, Condensed Matter Physics and Materials Science, qiangli@bnl.gov **Category:** Superconductivity - Basic **Facility:** DC Field Facility	Edited

	UCGP: No **VSP:** No **Submitted to** Nature Communications **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	
33	**Title:** de Haas-van Alphen Measurements of Iron-Pnictide Superconductors $(Ba_{1-x}K_x)Fe_2As_2$ **First Author:** Terashima, T, National Institute for Materials Science, TERASHIMA.Taichi@nims.go.jp **PI:** Terashima, T, National Institute for Materials Science, TERASHIMA.Taichi@nims.go.jp **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
43	**Title:** Flux Pinning at ab Planar Defects in Co-doped Ba-122 Thin Films **First Author:** Hänisch, J., IFW Dresden, j.haenisch@ifw-dresden.de **PI:** Hänisch, J., IFW Dresden, j.haenisch@ifw-dresden.de **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
45	**Title:** Multiband Effects on ß-FeSe Single Crystals **First Author:** Lei, H. (Hechang), Brookhaven National Laboratory, hchleibnl@gmail.com **PI:** Petrovic, C., Brookhaven National Laboratory, petrovic@bnl.gov **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Published in** Phys. Rev. B 85, 094515 (2012) **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
48	**Title:** High-field Transport Properties of Epitaxial SmFeAs(O,F) Thin Films **First Author:** Hänisch, J., IFW Dresden, j.haenisch@ifw-dresden.de **PI:** Hänisch, J., IFW Dresden, j.haenisch@ifw-dresden.de **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** Fixed figure label	Edited
58	**Title:** Field Dependence of Spin Lattice Relaxation Rate in $NaFe_{0.975}Co_{0.025}As$ and $Ba_{0.67}K_{0.33}Fe_2As_2$ in High Magnetic Field **First Author:** Oh, S., Northwestern University, Physics and Astronomy, sangwon.oh@u.northwestern.edu **PI:** Halperin, W.P., Northwestern University, Physics and Astronomy, w-halperin@northwestern.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
384	**Title:** Resonant Ultrasound Spectroscopy (RUS) Measurements on Ultra-high Quality YBCO Single Crystal Cuprates **First Author:** Shekhter, A.S., Pulsed Field Facility, NHMFL, LANL, arkady@lanl.gov **PI:** Migliori, A, Pulsed Field Facility, NHMFL, LANL, migliori@cybermesa.com **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Submitted to** Nature **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited

385	**Title:** In-Situ Detwinning and Measurement of the Ultrasonic Properties of $La_{2-x}Sr_xCuO_4$ **First Author:** Ramshaw, B.J., NHMFL-LANL, bradramshaw@gmail.com **PI:** Ramshaw, B.J., NHMFL-LANL, bradramshaw@gmail.com **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** Yes **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
389	**Title:** Topological Field Theories of Weyl Semi-metal and Topological Superconductors **First Author:** Goswami, P., NHMFL/FSU, CMS, pallab.goswami01@gmail.com **PI:** Goswami, P., NHMFL/FSU, CMS, pallab.goswami01@gmail.com **Category:** Superconductivity - Basic **Facility:** CMT/E **UCGP:** No **VSP:** No **Submitted to** Physica B **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
393	**Title:** High Field Heat Capacity of the Cuprate Hg 1201 **First Author:** Kemper, J.B., Florida State University, Physics, kemper@magnet.fsu.edu **PI:** Greven, M., University of Minnesota, Physics and Astronomy, greven@physics.umn.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
395	**Title:** Upper Critical Field Measurements of Heavy-Ion Irradiated P-doped $SrFe_2As_2$ **First Author:** Yeninas, S., Iowa State Univ./Ames Laboratory, syeninas@gmail.com **PI:** Yeninas, S., Iowa State Univ./Ames Laboratory, syeninas@gmail.com **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
370	**Title:** Competition Between the Structural Phase Transition and Superconductivity in $Ir_{1-x}Pt_xTe_2$ as Revealed by High Pressure Measurements **First Author:** Kiswandhi, A., NHMFL, kiswandhi@magnet.fsu.edu **PI:** Zhou, H.D., NHMFL, UT Knoxville, hzhou10@utk.edu **Category:** Superconductivity - Basic **Facility:** CMT/E **UCGP:** No **VSP:** No **Submitted to** Phys. Rev. Lett. **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
376	**Title:** Probing Superconductivity and Elastic Constants of $PuCoGa_5$ with Resonant Ultrasound Spectroscopy **First Author:** Ramshaw, B.J., LANL, bradramshaw@gmail.com **PI:** Ramshaw, B.J., LANL, bradramshaw@gmail.com **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
	Title: Emerging Isotropy as a Generic Feature of the Iron-Pnictide Superconductors? **First Author:** Moll, J.W., Philip, phmoll@phys.ethz.ch **PI:** Moll, J.W., Philip, phmoll@phys.ethz.ch **Category:** Superconductivity - Basic	

381	**Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
158	**Title:** Measurement of the Nematic Susceptibility of $Ba(Fe_{1-x}Co_x)_2As_2$ in High Magnetic Field **First Author:** Kuo, H.-H, Stanford University, hsuehhui@stanford.edu **PI:** Fisher, I. R., Stanford University, irfisher@stanford.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
333	**Title:** Large-angle Scattering as the Origin of Transport Anisotropy in Antiferromagnetic $BaFe_2As_2$: A Shubnikov-de Haas study **First Author:** Analytis, J.G., UC Berkeley, analytis@berkeley.edu **PI:** Fisher, I.R., Stanford, irfisher@stanford.edu **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
334	**Title:** Low-temperature Transport Power Law Near a Quantum Critical Point in $BaFe_2(As_{1-x}P_x)_2$ **First Author:** Analytis, J.G., UC Berkeley, analytis@berkeley.edu **PI:** Fisher, I.R., Stanford, irfisher@stanford.edu **Category:** Superconductivity - Basic **Facility:** Pulsed Field Facility at LANL **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
431	**Title:** High-field ^{63}Cu NMR Measurements of the Cuprate Superconductor $Nd_{1.85}Ce_{0.15}CuO_{4-y}$ **First Author:** Koutroulakis, G., LANL, gkoutrou@gmail.com **PI:** Brown, S.E., UCLA, Physics and Astronomy, brown@physics.ucla.edu **Category:** Superconductivity - Basic **Facility:** DC Field Facility **UCGP:** No **VSP:** Yes **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
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