

Curriculum Vitae

SEUNG-HUN LEE

Contact Information

University of Virginia, Department of Physics, 382 McCormick Road, Charlottesville, VA 22904. Phone: (434) 924-7959; Fax: (434) 982-4576; Email: shlee@virginia.edu

Personal Data

Married, two children

Employment

2009-Present Professor of Physics, University of Virginia
2007-2008 Adjunct Professor, Department of Physics, Korea University, Korea
2005-2009 Associate Professor of Physics, University of Virginia
2002-2005 Physicist, National Institute of Standards and Technology (NIST), Gaithersburg, Maryland
1996-2002 Instrument Scientist at NIST. Mentors: C. Majkrzak, G. Shirane, C. Broholm
1989-1996 Research Assistant, Department of Physics, Johns Hopkins University
1988-1989 Lecturer, Department of Physics, Korea University
1987-1988 Second Lieutenant in Korean Army, Korea
1985-1987 Research Assistant, Department of Physics, Korea University

Education

Ph.D. Physics, Johns Hopkins University, 02/1996
Adviser: Collin Broholm
M.S. Physics (with Condensed Matter Physics focus), Johns Hopkins University, 12/1990
M.S. Physics (with Particle Physics focus), Korea University, Seoul, Korea, 02/1987
B.S. Physics, Korea University, Seoul, Korea, 02/1985

Awards and Grants

2008 Science Prize from the Neutron Scattering Society of America (NSSA).
2007-2009 *Neutron Scattering Study of Superconducting Cuprates*, NIST, (\$66K)
2007-2010 *Frustration and Multi-Functionality in Magnetic Spinel*s, DOE, (\$500K).
2005-2008 *Emergence of Magnetism and Metallicity in perovskite transition metal oxides*, NIST, with D. Louca (\$275K).
2004 Young Scientist Award for Excellence in Scientific Research from SigmaXi NIST Chapter.
2002 The Outstanding Young Researcher Award (OYRA) from the Association of Korean Physicists in America (AKPA)
1981-1985 Korea University Ahn-Ahm 4 year Full Scholarship

Professional Activities

- 2009 - A co-organizer of the International Conference on Highly Frustrated Magnetism (HFM2010) that will be held on August, 2010.
- An executive committee member of the Spallation Neutron Source-High Flux Isotope Reactor User Group (SHUG) that represents neutron scattering users at the Oak-Ridge National Laboratory neutron facilities
- 2008 - Member of the Beam Time Allocation Committee for the NIST Center for Neutron Research, USA
- International Program Advisory Committee member for the Seventh International Workshop on Polarized Neutrons in Condensed Matter Investigations (PNCMI2008), JAERI, Japan.
- 2007 - Co-organizer of the "1st Korea University – KAERI Joing International Workshop on Condensed Matter Physics and Neutron Scattering", December.
- One month Summer Visiting Scholar, Korea Atomic Energy Institute, Korea
- 2006-Present Member of the International Scientific Advisory Committee for the VINS (Versatile Inelastic Neutron Spectrometer) Project by University of Tokyo for the J-PARC (Japan Proton Accelerator Research Complex)
- 2005-2007 - Summer visitor, National Institute of Standards and Technology
- 2005 - Visiting Professor, IFCAM, Tohoku University, Sendai, Japan
- Member of a DOE Program Review Committee of the SING (Spallation Neutron Source Instruments: Next Generation) project for SNS
- 2004-Present - Member of the International PAC for the Triple-Axis Neutron Scattering Project at HANARO, Korean Atomic Energy Research Institute (KAERI), Korea
- 2002-2006 - Member of LANSCE Materials Program Advisory Committee, Los Alamos Neutron Science Center
- 2003 - Co-organizer of the "International Workshop on Theory, Modeling and Neutron Scattering", (August 12-14, 2003), at the NIST Center for Neutron Research, Gaithersburg, MD
- 1997-Present - Editorial Consultant: Nature Physics, Physical Review Letters, Physical Review B, Europhysics Letters, Journal of Applied Physics, Journal of Physics: Condensed Matter.

Graduate Students

- Jooseop Lee, 1st year student
Junghwa Kim, Ph.D. in Physics, 2009, now a postdoctoral fellow at the Bernhard Keimer's group at the Max Planck Institute in Stuttgart, Germany

Undergraduate Students

- Yuehaw Khoo, B.S. in Physics, 2009.
Thiparat Chotibut, B.S. in Physics, 2008 and M.S. in Math, 2009. Will start his PhD study in the fall of 2009 at Harvard with Subir Sachdev. is spending one more year to major in Math.

Postdoctoral Fellows

- Dr. Sungdae Ji, 2007-, UVA/NIST
Dr. Maiko Kofu, 2006-2009, UVA, now Assistant Professor at ISSP, University of Tokyo

Dr. Jaeho Chung, 2004-2005, now Assistant Professor at Korea University
Dr. William Ratcliff, 2003-2005, now Staff Physicist at NIST
Dr. Sungil Park, 2001-2004, now Staff Physicist at KAERI, Korea

Courses taught

2005 Fall	PHYS321	Classical Mechanics (Textbook: Marion/Thornton)
2006 Spring	PHYS562	Introduction to Solid State Physics (Textbook: Ashcroft/Mermin)
2006 Fall	PHYS321	Classical Mechanics (Textbook: Marion/Thornton)
2007 Spring	PHYS562	Introduction to Solid State Physics (Textbook: Ashcroft/Mermin)
2007 Fall	PHYS321	Classical Mechanics (Textbook: Marion/Thornton)
2008 Spring	PHYS562	Introduction to Solid State Physics (Textbook: Ashcroft/Mermin)
2008 Fall	PHYS562	Introduction to Solid State Physics (Textbook: Ashcroft/Mermin)
2009 Spring	PHYS861	Solid State Physics I (Textbook: Doniach/Sondheimer)

Current Research Interests

Experimental condensed matter physics using neutron and X-ray scattering. Focus on novel magnetic properties of strongly correlated electron systems, especially the systems that fail to develop static order despite strong interactions due to intrinsic effects. The systems of interest include geometrically frustrated magnets, magnetic molecules, doped antiferromagnets, heavy fermion systems, and superconductors. Novel phase transitions, spin dynamics, and interplay between spin, charge and orbital degrees of freedom in those systems are my focus.

Total Number of Publications (as of April 2009): 91

Among them, Nature: 1
Nature Materials: 2
Nature Physics: 1
Physical Review Letters: 24

Total Number of Citations (as of April 2009): 2576

Hirsch's h Index (as of April 2009): 27

International Meetings where I have presented/will present invited talks

- 2008 - *Quantum Magnetism Workshop*, University of Minnesota, Minneapolis, MN, May 2-4.
- *American Conference on Neutron Scattering*, Santa Fe, NM, May 11-15.
- *The 21st Congress of the International Union of Crystallography*, Osaka, Japan, August 23-31.
- *International Conference on Highly Frustrated Magnetism HFM 2008*, Braunschweig, Germany, September 7-12.
- *The 16th International Conference on Ternary and Multinary Compounds*, Technical University Berlin, Germany, September 15-19.
- 2007 - *KIAS Workshop on Quantum Magnetism*, Korea Institute for Advanced Study (KIAS), Seoul, Korea, December 17-20.

- *Conference on Moments and Multiplets in Mott Materials*, Kavli Institute of Theoretical Physics, UC Santa Barbara, CA, September 10-14.
- *The 15th International Conference on Crystal Growth*, Salt Lake City, Utah, August 12-17.
- *Multiferroics II Workshop*, Univ. of Maryland, College Park, July 19.
- *American Physical Society Meeting*, Denver, Colorado, March 5-9.
- 2006 - *Highly Frustrated Magnetism*, Osaka, Japan, August 15-19.
- *Workshop on "Competing Interactions and Colossal Responses in Transition Metal Compounds"*, Telluride, CO, July 16-22.
- *American Conference on Neutron Scattering*, Chicago, IL, June 18-22.
- 2005 - *International Symposium on Research Reactor and Neutron Science*, Daejeon, Korea, April 11-13.
- 2004 - *International Symposium on Quantum Spin Systems*, Shonan Village Center, Japan, November 30 - December 3.
- *International Workshop on Frustrated Magnetism*, Long Island, New York, September 13-17.
- *Korean Physical Society Meeting*, Suwon, Korea, April.
- 2003 - *International Conference on Polarized Neutrons and Synchrotron X-rays for Magnetism*, Venice, Italy, August 4-6.
- *American Physical Society March Meeting*, Austin, Texas.
- 2002 - *The 50th Jubilee Meeting of the Korean Physical Society*, Seoul, Korea, October 22-26.
- *The 23rd International Conference on Low Temperature Physics (LT)*, Hiroshima, Japan, August 20-27.
- *American Conference on Neutron Scattering*, Knoxville, TN, USA, June 23-27.
- 2000 - *American Physical Society March Meeting*, Minneapolis, Minnesota.
- 1999 - *Workshop on Exotic Oxides*, Brookhaven National Laboratory, NY, March.
- 1998 - *American Physical Society March Meeting*, Los Angeles, California.

Publications of S.-H. Lee

Book

1. *Magnetic neutron scattering: and recent developments in the triple axis spectroscopy*, I. A. Zaliznyak and S.-H. Lee, a chapter in a book "Modern techniques for characterizing magnetic materials" ed. by Yimei, Z., Kluwer publishing co. (2004).

Journals

1. *Microscopic mechanism of the spin-lattice coupling in the frustrated spinel $ZnCr_2O_4$* , S. Ji, S.-H. Lee, C. Broholm, O. Tchernyshov, T. Y. Koo, W. Ratcliff, S-W. Cheong, P. Zachack, submitted to Phys. Rev. Lett. (2009).
2. *A reassessment of the Burns temperature and its relationship to the diffuse scattering, lattice dynamics, and thermal expansion in the relaxor $PbMg_{1/3}Nb_{2/3}O_3$* , P. M. Gehring, H. Hiraka, C. Stock, S.-H. Lee, W. Chen, Z.-G. Ye, S. B. Vakhrushev, and Z. Chowdhuri, in press, Phys. Rev. B (2009).
3. *Neutron scattering investigation of the magnetic order in single crystalline $BaFe_2As_2$* , M. Kofu, Y. Qiu, W. Bao, S.-H. Lee, S. Chang, T. Wu, and X. H. Chen, New J. Phys. **11**, 055001 (2009).
4. *Magnetic field-induced phase transitions in a weakly coupled $s = 1/2$ quantum spin dimer system $Ba_3Cr_2O_8$* , M. Kofu, H. Ueda, H. Nojiri, Y. Oshima, T. Zenmoto, K. Rule, S. Gerischer, B. Lake, C. D. Batista, Y. Ueda, S.-H. Lee, Phys. Rev. Lett. **102**, 177204 (2009).
5. *Hidden quantum spin gap state in the static stripe phase of $La_{2-x}Sr_xCuO_4$* , M. Kofu, S.-H. Lee, M. Fujita, H.-J. Kang, H. Eisaki, K. Yamada, Phys. Rev. Lett. **102**, 047001 (2009).
6. *Weakly coupled $s = 1/2$ quantum spin singlets in $Ba_3Cr_2O_8$* , M. Kofu, J.-H. Kim, S. Ji, S.-H. Lee, H. Ueda, Y. Qiu, H. J. Kang, M. Green, Y. Ueda, Phys. Rev. Lett. **102**, 037206 (2009). [Time cited: 1]
7. *Spiral spin structures and origin of the magneto-electric coupling in YMn_2O_5* , J.-H. Kim, S.-H. Lee, S. I. Park, M. Kenzelmann, J. Schefer, J.-H. Chung, C. F. Majkrzak, M. Takeda, S. Wakimoto, S. Y. Park, S-W. Cheong, M. Matsuda, H. Kimura, Y. Noda, K. Kakurai, Phys. Rev. B **78**, 245115 (2008). [Time cited: 1]
8. *Doping-dependent charge and spin superstructures in layered cobalt perovskites*, N. Sakiyama, I. A. Zaliznyak, S.-H. Lee, Y. Mitsui, H. Yoshizawa, Phys. Rev. B **78**, 180406(R) (2008). [Time cited: 1]
9. *Spin and charge order in single-layered perovskite cobaltates*, N. Sakiyama, Y. Mitsui, H. Yoshizawa, I. A. Zaliznyak, S.-H. Lee, J. Kor. Phys. Soc. **53**, 995 (2008). [Time cited: 0]

10. *Low-energy spin fluctuations in the ground states of electron-doped $Pr_{1-x}LaCe_xCuO_4$ cuprate superconductors*, M. Fujita, M. Matsuda, S.-H. Lee, M. Nakagawa, K. Yamada, Phys. Rev. Lett. **101**, 107003 (2008). [Time cited: 1]
11. *External magnetic field effects on a distorted kagome antiferromagnet*, J.-H. Kim, S. Ji, S.-H. Lee, B. Lake, T. Yildirim, H. Nojiri, K. Habicht, Y. Qiu, K. Kiefer, Phys. Rev. Lett. **101**, 107201 (2008). [Time cited: 0]
12. *Neutron scattering study of the oxypnictide superconductor $La(O,F)FeAs$* , Y. Qiu, M. Kofu, W. Bao, S.-H. Lee, Q. Huang, T. Yildirim, J. R. D. Copley, J. W. Lynn, T. Wu, G. Wu, X. H. Chen, Phys. Rev. B **78**, 052508 (2008). [Time cited: 13]
13. *Frustrated minority spins in $GeNi_2O_4$* , M. Matsuda, J.-H. Chung, S. Park, T. J. Sato, K. Matsuda, H. Aruga-Katori, H. Takagi, K. Kakurai, K. Kamazawa, Y. Tsunoda, I. Kagomiya, C. L. Henley, S.-H. Lee, Europhys. Lett. **82**, 37006 (2008). [Time cited: 0]
14. *Magnetic excitations and orbital physics in ferrimagnetic spinel, MnB_2O_4 ($B = Mn, V$)*, J.-H. Chung, J.-H. Kim, S.-H. Lee, T. J. Sato, T. Katsufuji, Phys. Rev. B **77**, 054412 (2008). [Time cited: 3]
15. *Neel to Spin-Glass-like Phase Transition versus Dilution in Geometrically Frustrated $ZnCr_{2-2x}Ga_{2x}O_4$* , S.-H. Lee, W. Ratcliff, Q. Huang, T. H. Kim, S.-W. Cheong, Phys. Rev. B **77**, 014405 (2008). [Time cited: 1]
16. *Quantum spin liquid states in the two dimensional kagome antiferromagnets, $Zn_xCu_{4-x}(OD)_6Cl_2$* , S.-H. Lee, H. Kikuchi, Y. Qiu, B. Lake, Q. Huang, K. Habicht, K. Kiefer, Nature Materials **6**, 853 (2007). [Time cited: 13]
17. *Spin-lattice instability to a fractional magnetization state in the spinel $HgCr_2O_4$* , M. Matsuda, H. Ueda, A. Kikkawa, Y. Tanaka, K. Katsumata, Y. Narumi, T. Inami, Y. Ueda, S.-H. Lee, Nature Physics **3**, 397 (2007). [Time cited: 7]
18. *Crystal distortions in geometrically frustrated ACr_2O_4 ($A = Zn, Cd$)*, S.-H. Lee, *et al.* J. of Phys. – Cond. Matt. **19** (14), 145259 (2007). [Time cited: 9]
19. *Spiral spin structure in a Heisenberg pyrochlore magnet $CdCr_2O_4$* , M. Matsuda, M. Takeda, M. Nakamura, K. Kakurai, A. Oosawa, E. Lelievre-Berna, J.-H. Chung, H. Ueda, H. Takagi, S.-H. Lee, Phys. Rev. B **75**, 104415 (2007). [Time cited: 7]
20. *Magnetic excitation spectrum of the square lattice $S = 1/2$ Heisenberg antiferromagnet $K_2V_3O_8$* , M. D. Lumsden, S. E. Nagler, B. C. Sales, D. A. Tennant, D. F. McMorrow, S.-H. Lee, Phys. Rev. B **74**, 214424 (2006). [Time cited: 3]

21. *Spin incommensurability and two phase competition in cobaltites*, D. Phelan, D. Louca, K. Kamazawa, S.-H. Lee, S. Rosenkranz, M. F. Hundley, J. F. Mitchell, Y. Motome, S. N. Ancona, Y. Moritomo, Phys. Rev. Lett. **97**, 235501 (2006). [Time cited: 13]
22. *Evolution of low-energy spin dynamics in the electron-doped high-transition-temperature superconductor $Pr_{0.88}LaCe_{0.12}CuO_{4-\delta}$* , S. D. Wilson, S. Li, P. Dai, W. Bao, J.-H. Chung, H. J. Kang, S.-H. Lee, S. Komiya, Y. Ando, Q. Si, Phys. Rev. B **74**, 144514 (2006). [Time cited: 9]
23. *Dielectric properties and lattice dynamics of Ca-doped $K_{0.95}Li_{0.05}TaO_3$* , S. Wakimoto, G. A. Samara, R. K. Grubbs, E. L. Venturini, L. A. Boatner, G. Xu, G. Shirane, and S.-H. Lee, Phys. Rev. B **74**, 054101 (2006). [Time cited: 6]
24. *Local order and frustration in the geometrically frustrated spinels $Cd_{1-x}Zn_xV_2O_4$* , Z. Zhang, D. Louca, A. Visinoinu, S.-H. Lee, J.D. Thompson, Y. Qiu, S. Park, Y. Ueda, Phys. Rev. B **74**, 014108 (2006). [Time cited: 6]
25. *Spin waves in the frustrated kagome lattice antiferromagnet $KFe_3(OH)_6(SO_4)_2$* , K. Matan, D. Grohol, D.G. Nocera, Y. Yildirim, A.B. Harris, S.-H. Lee, S.E. Nagler, Y.S. Lee, Phys. Rev. Lett. **96**, 247201 (2006). [Time cited: 20]
26. *Non-Fermi liquid behavior and quantum criticality in $Sc_{1-x}U_xPd_3$ and $URu_{2-x}Re_xSi_2$* , M.B. Maple, N.P. Butch, E.D. Bauer, V.S. Zapf, P.C. Ho, S.D. Wilson, P.C. Dai, D.T. Adroja, S.-H. Lee, J.H. Chung, J. Lynn, Physica B-Cond. Matt. **378-80**, 911-914 (2006). [Time cited: 1]
27. *Magnetic structures in $UCuSn$* , S. El-Khatib, A. Llobet, A. Purwanto, R.A. Robinson, S.-H. Lee, J.W. Lynn, S. Chang, H. Nakotte, J. Appl. Phys. **99**, 08P704 (2006)
28. *Nano-magnetic droplets and implications to orbital ordering in $La_{1-x}Sr_xCoO_3$* , D. Phelan, D. Louca, S. Rosenkranz, S.-H. Lee, Y. Qiu, P. J. Chupas, R. Osborn, H. Zheng, J. F. Mitchell, J. R. D. Copley, J. L. Sarrao, and Y. Moritomo, Phys. Rev. Lett. **96**, 027201 (2006). [Time cited: 32]
29. *Statics and dynamics of an incommensurate spin order in a geometrically frustrated antiferromagnet $CdCr_2O_4$* , J.-H. Chung, M. Matsuda, S.-H. Lee, K. Kakurai, H. Ueda, T.J. Sato, H. Takagi, K.-P. Hong, and S. Park, Phys. Rev. Lett. **95**, 247204 (2005). [Time cited: 29]
30. *Magnetic phase diagram of the colossal magnetoelectric $DyMn_2O_5$* , W. Ratcliff, V. Kiryukhin, M. Kenzelmann, S.-H. Lee, R. Erwin, J. Schaeffer, N. Hur, S. Park, S.-W. Cheong, Phys. Rev. B **72**, 060407(R) (2005). [Time cited: 30]
31. *Cold neutron triple-axis spectroscopy and condensed matter physics*, S.-H. Lee and C. Broholm, Proceedings of the International Symposium on Research Reactor and Neutron Science - In Commemoration of the 10th Anniversary of HANARO, Daejeon, Korea, April (2005).

32. *Spin chirality on a two-dimensional frustrated lattice*, D. Grohol, K. Matan, J.-H. Cho, S.-H. Lee, J. W. Lynn, D. G. Nocera, and Y. S. Lee, *Nature Materials* **4**, 323 (2005). [Time cited: 50]
33. *Quantum critical scaling and the origin of non-Fermi-liquid behavior in $Sc_{1-x}U_xPd_3$* , S. D. Wilson, P. Dai, D. T. Adroja, S.-H. Lee, J.-H. Chung, J. W. Lynn, N. P. Butch, and M. B. Maple, *Phys. Rev. Lett.* **94**, 056402 (2005). [Time cited: 14]
34. *High Resolution study of spin excitations in the Shastry-Sutherland singlet ground state of $SrCu_2(BO_3)_2$* , B. D. Gaulin, S.-H. Lee, S. Haravifard, J. P. Castellan, A. J. Berlinsky, H. A. Dabkowska, Y. Qiu, J. R. D. Copley, *Phys. Rev. Lett.* **93**, 267202 (2004). [Time cited: 18]
35. *Cold neutron study on the diffuse scattering and phonon excitations in the relaxor $Pb(Mg_{1/3}Nb_{2/3})O_3$* , H. Hiraka, S.-H. Lee, G. Shirane, *Phys. Rev. B* **70**, 184105 (2004). [Time cited: 20]
36. *Characterization of low-energy magnetic excitations in chromium*, H. Hiraka, P. Boni, K. Yamada, S. Park, S.-H. Lee, P.M. Gehring, G.Y. Xu, G. Shirane, *Phys. Rev. B* **70**, 144413 (2004). [Time cited: 3]
37. *Orbital and spin chains in ZnV_2O_4* , S.-H. Lee, D. Louca, T. Sato, Y. Ueda, M. Isobe, S. Rosenkranz, and R. Osborn, *Phys. Rev. Lett.* **93**, 156407 (2004). [Times cited: 37]
38. *Dissociation of spin objects in geometrically frustrated $CdFe_2O_4$* , K. Kamazawa, S. Park, S.-H. Lee, T.J. Sato, Y. Tsunoda, *Phys. Rev. B* **70**, 024418 (2004). [Times cited: 7]
39. *Spin-Flop transition and anisotropic magnetoresistance in $Pr_{1.3-x}La_{0.7}Ce_xCuO_4$: Unexpected strong spin-charge coupling in electron-doped cuprates*, A.N. Lavrov, H.J. Kang, Y. Kurita, T. Suzuki, S. Komiya, J.W. Lynn, S.-H. Lee, P. Dai, and Y. Ando, *Phys. Rev. Lett.* **92**, 227003 (2004). [Times cited: 17]
40. *Polarized neutron measurements of magnetic order in $YbBa_2Cu_3O_{6.45}$* , H. A. Mook, Pengcheng Dai, S. M. Hayden, A. Hiess, S.-H. Lee, and F. Dogan, *Phys. Rev. B* **69**, 134509 (2004). [Times cited: 11]
41. *Neutron scattering study of the effects of dopant disorder on the superconductivity and magnetic order in stage-4 La_2CuO_{4+y}* , Y. S. Lee, F. C. Chou, A. Tewary, M. A. Kastner, S.-H. Lee, and R. J. Birgeneau, *Phys. Rev. B* **69**, 020502 (2004). [Times cited: 9]
42. *Unconventional spin fluctuations in the hexagonal antiferromagnet $YMnO_3$* , T.J. Sato, S.-H. Lee, T. Katsufuji, M. Masaki, S. Park, J.R.D. Copley, and H. Takagi, *Phys. Rev. B* **68**, 014432 (2003). [Times cited: 27]
43. *Effect of a magnetic field on the spin- and charge-density wave order in $La_{1.45}Nd_{0.4}Sr_{0.15}CuO_4$* , S. Wakimoto, R.J. Birgeneau, N. Ichikawa, Y.J. Kim, K.M. Kojima,

- S.-H. Lee, J.M. Tranquada, S. Uchida, M.v. Zimmermann, Phys. Rev. B **67**, 184419 (2003). [Times cited: 21]
44. *Commensurate spin dynamics in the superconducting state of an electron-doped cuprate superconductor*, K. Yamada, K. Kurahashi, T. Uefuji, M. Fujita, S. Park, S.-H. Lee, Y. Endoh, Phys. Rev. Lett. **90**, 137004 (2003). [Times cited: 67]
45. *Spin excitations in 3D molecular magnets probed by neutron scattering*, H.N. Bordallo, L.C. Chapon, J.C. Cook, J.R. Copley, E. Goremychkin, S. Kern, S.-H. Lee, T. Yildirim, and J.L. Manson, Appl. Phys. A **74**, S634 (2002). [Times cited: 3]
46. *Observation of linear spin wave dispersion in re-entrant spin glass $Fe_{0.7}Al_{0.3}$* , S.M. Shapiro, Wei Bao, S. Raymond, S.-H. Lee, and K. Motoya, Appl. Phys. A **74**, S859 (2002). [Times cited: 1]
47. *Effect of a magnetic field on long-range magnetic order in stage-4 and stage-6 superconducting La_2CuO_{4+y}* , B. Khaykovich, R.J. Birgeneau, F.C. Chou, R.W. Erwin, M.A. Kastner, S.-H. Lee, Y.S. Lee, P. Smeibidl, P. Vorderwisch, S. Wakimoto, Phys. Rev. B **67**, 054501 (2003). [Times cited: 24]
48. *Spin and lattice excitations in the heavy fermion superconductor UNi_2Al_3* , B.D. Gaulin, M. Mao, C.R. Wiebe, Y. Qui, S.M. Shapiro, C. Broholm, S.-H. Lee, J.D. Garrett, Phys. Rev. B **66**, 174520 (2002). [Times cited: 4]
49. *Magnetic order in $YBa_2Cu_3O_{6+x}$ superconductors*, H.A. Mook, P. Dai, S.M. Hayden, A. Hiess, J.W. Lynn, S.-H. Lee, and F. Dogan, Phys. Rev. B **66**, 144513 (2002). [Times cited: 37]
50. *Doping evolution of phonon density of states and electron-lattice interaction in $Nd_{2-x}Ce_xCuO_{4+d}$* , H.J. Kang, P. Dai, D. Mandrus, R.J. Jin, H.A. Mook, D.T. Adroja, S.M. Bennington, S.-H. Lee, and J.W. Lynn, Phys. Rev. B **66**, 064506 (2002). [Times cited: 9]
51. *Enhancement of long-range magnetic order by magnetic field superconducting La_2CuO_{4+y}* , B. Khaykovich, Y.S. Lee, R. Erwin, S.-H. Lee, S. Wakimoto, K.J. Thomas, M.A. Kastner, and R.J. Birgeneau, Phys. Rev. B **66**, 014528 (2002). [Times cited: 82]
52. *Emergent excitations in a geometrically frustrated magnet*, S.-H. Lee, C. Broholm, W. Ratcliff, G. Gasparovic, T.H. Kim, Q. Huang, and S-W. Cheong, Nature **418**, 856 (2002). [Times cited: 143]
53. *Freezing of spin correlated nanoclusters in a geometrically frustrated antiferromagnet*, W. Ratcliff, S.-H. Lee, C. Broholm, S-W. Cheong, and Q. Huang, Phys. Rev. B **65**, 220406 (2002). [Times cited: 10]
54. *Freezing of a stripe liquid*, S.-H. Lee, J.M. Tranquada, K. Yamada, D.J. Buttrey, Q. Li, and S-W. Cheong, Phys. Rev. Lett. **88**, 126401 (2002). [Times cited: 28]

55. *Static magnetic correlations near the insulating-superconducting phase boundary in $La_{2-x}Sr_xCuO_4$* , M. Fujita, K. Yamada, H. Hiraka, P.M. Gehring, S.-H. Lee, S. Wakimoto, and G. Shirane, *Phys. Rev. B* **65**, 064505 (2002). [Times cited: 97]
56. *Spin Dynamics in the $S=1/2$ weakly-coupled chains antiferromagnet $BaCu_2Si_2O_7$* , A. Zheludev, M. Kenzelmann, S. Raymond, T. Masuda, K. Uchinokura, and S.-H. Lee, *Phys. Rev. B* **65**, 014402 (2002). [Times cited: 13]
57. *Diagonal static spin correlation in the low-temperature orthorhombic $Pccn$ phase of $La_{1.55}Nd_{0.4}Sr_{0.05}CuO_4$* , S. Wakimoto, J.M. Tranquada, T. Ono, K.M. Kojima, S. Uchida, S.-H. Lee, P.M. Gehring, and R.J. Birgeneau, *Phys. Rev. B* **64**, 174505 (2001). [Times cited: 15]
58. *Continuum in the spin excitation spectrum of a Haldane chain, observed by neutron scattering in $CsNiCl_3$* , I.A. Zaliznyak, S.-H. Lee, and S.V. Petrov, *Phys. Rev. Lett.* **87**, 017202 (2001). [Times cited: 19]
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