

Curriculum Vitae

Tuson Park

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Education

2003 **Ph. D.** in Physics at University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
1996 **M. S.** in Physics at Sungkyunkwan University, Suwon, Korea
1994 **B. A.** in Physics at Sungkyunkwan University, Suwon, Korea

Employment and Professional Experience

2012 - Present **Associate Professor**, Department of Physics, Sungkyunkwan University, Suwon, Republic of Korea (ROK)
2008 - 2012 **Assistant Professor**, Department of Physics, Sungkyunkwan University, Suwon, Republic of Korea (ROK)
2005 - 2008 **J. Robert Oppenheimer(JRO) Postdoctoral Fellow**, Los Alamos National Laboratory, Los Alamos, NM, USA
2003 - 2005 **Postdoctoral Research Associate**, Los Alamos National Laboratory, Los Alamos, NM, USA
Research Advisor: Dr. Joe D. Thompson
1998 - 2003 **Research Assistant**, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
Thesis Advisor: Dr. Myron B. Salamon
1997 - 1998 **Teaching Assistant**, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
1994 - 1996 **Teaching and Research Assistant**, Sungkyunkwan University, Suwon, Korea
Thesis Advisor: Dr. Y. S. Kwon

Awards and Honors

2011 SKKU Young Fellow, Sungkyunkwan Univ, Korea
2009 POSCO Bessemer Science Fellow, POSCO TJ Park Foundation, Korea
2007 Postdoctoral Distinguished Performance Award, Los Alamos National Laboratory, USA
2007 Outstanding Young Research Award, Association of Korean Physicists in America, USA
1997 Rotary international scholar, Korea

Professional Activities

2009 - Present member of Korean Superconductivity Society
2008 - Present member of Korean Physical Society

2000 - Present member of American Physical Society
2006 - Present referee for Physical Review
2009 - Present referee for Institute of Physics Journals

Selected Publications

9. T. Park et al., Textured superconducting state in the heavy fermion CeRhIn₅,” *Phys. Rev. Lett.* **108**, 077003 (2012).
8. **T. Park et al.**, Isotropic quantum scattering and unconventional superconductivity, *Nature* **456**, 366 (2008).
7. **T. Park et al.** Probing the nodal gap in the pressure-induced heavy fermion superconductor CeRhIn₅, *Phys. Rev. Lett.* **101**, 177002 (2008).
6. **T. Park et al.** Electronic duality in strongly correlated matter, *Proc. Nat. Acad. Sci.* **105**, 6825 (2008).
5. **T. Park et al.** Hidden magnetism and quantum criticality in the heavy fermion superconductor CeRhIn₅, *Nature* **440**, 65 (2006).
4. **T. Park et al.** Anomalous Pressure Dependence of Kadowaki-Woods ratio and crystal field effects in mixed-valence YbInCu₄, *Phys. Rev. Lett.* **96**, 046405 (2006).
3. **T. Park et al.** A novel dielectric anomaly in cuprates and nickelates: signature of an electronic glassy state. *Phys. Rev. Lett.* **94**, 017002 (2005).
2. **T. Park et al.** Evidence for the coexistence of anisotropic superconducting gap and nonlocal effects in the non-magnetic superconductor LuNi₂B₂C. *Phys. Rev. Lett.* **92**, 237002 (2004).
1. **T. Park et al.** Direct observation of nodal quasiparticles in an unconventional superconductor: field-angle dependent heat capacity of YNi₂B₂C. *Phys. Rev. Lett.* **90**, 177001 (2003).

(Complete list of publications and presentations is attached at the end of this CV)

Papers Published and Accepted

58. K. Gofryk, F. Ronning, M. N. Ou, P. H. Tobash, S. Stoyko, A. Mar, X. Lu, Tuson Park, E. D. Bauer, T. Durakiewicz, J. D. Thompson, and Z. Fisk, "Electronic tuning and uniform superconductivity in CeCoIn₅," *Phys. Rev. Lett.* (accepted).
57. S. Seo, S. Ju, E. D. Bauer, J. D. Thompson, T. Park, "Pressure effects on the Hg-doped heavy-fermion superconductor CeRhIn₅," *Progress in Superconductivity* **14**, 17-23 (2012, 09).
56. E. Park et al., "Pressure effects on the superconducting thin film (Ba,K)Fe₂As₂," *Appl. Phys. Lett.* **101**, 042601 (2012. 07)
55. S. Seo et al., "Pressure effects on the heavy-fermion antiferromagnet CeAuSb₂," *Phys. Rev. B* **85**, 205145 (2012. 05).
54. D.-J. Jang, J. B. Hong, Y. S. Kwon, Tuson Park, K. Gofryk, F. Ronning, J. D. Thompson, and Y. Bang, "Evidence for +-s-wave pairing symmetry in LiFeAs: specific heat study," *Phys. Rev. B* **85**, 180505 (Rapid Communication) (2012. 05)
53. D.-J. Jang, H.-S. Lee, and Tuson Park, "Quasi-periodic low frequency velocity fluctuations above the pinning threshold in densely packed vortex systems," (submitted to *New Journal of Physics*).
52. Tuson Park, X. Lu, H. Lee, and J. D. Thompson, "Textured superconductivity in the presence of a coexisting order: Ce₁₁₅s and other heavy fermion compounds," *Physica C* **481**, 223 (2012. 11).
51. Tuson Park, H. Lee, I. Martin, X. Lu, V. A. Sidorov, K. Gofryk, F. Ronning, E. D. Bauer, and J. D. Thompson, "Textured superconducting state in the heavy fermion CeRhIn₅," *Phys. Rev. Lett.* **108**, 077003 (2012. 02).
50. X. Lu, H. Lee, Tuson Park, F. Ronning, E. D. Bauer, and J. D. Thompson, "Heat-capacity measurements of energy-gap nodes of the heavy-fermion superconductor CeIrIn₅ deep inside the pressure-dependent dome structure of its superconducting phase diagram," *Phys. Rev. Lett.* **108**, 027001 (2012. 01).
49. V. A. Sidorov, P. H. Tobash, C. Wang, B. L. Scott, Tuson Park, E. D. Bauer, F. Ronning, J. D. Thompson, and Z. Fisk, "Quenching of ferromagnetism in b-UB₂C and UNiSi₂ at high pressure," *J. Phys.: Conference Series* **273**, 012014 (2011).
48. D.-J. Jang, A. B. Vorontsov, I. Vekhter, K. Gofryk, Z. Yang, S. Ju, J. B. Hong, J. H. Han, Y. S. Kwon, F. Ronning, J. D. Thompson, and T. Park, "Nodal superconductivity in the overdoped Ba(Fe,Co)₂As₂," *New J. Phys.* **13**, 023036 (2011. 02).

47. Tuson Park, V. A. Sidorov, H. Lee, F. Ronning, E. D. Bauer, J. L. Sarrao, and J. D. Thompson, "Unconventional quantum criticality in the pressure-induced heavy-fermion superconductor CeRhIn₅," *J. Phys.: Cond. Matter* **23**, 094218 (2011. 03).
46. Tuson Park, H. Lee, E. D. Bauer, J. D. Thompson, and F. Ronning, "Pressure dependence of BaNi₂As₂," *J. Physics: Conference Series* **200**, 012155 (2010).
45. E. D. Bauer, H. O. Lee, V. A. Sidorov, N. Kurita, K. Gofryk, J.-X. Zhu, F. Ronning, R. Movshovich, J. D. Thompson, and Tuson Park, "Pressure-induced superconducting state and effective mass enhancement near the antiferromagnetic quantum critical point of CePt₂In₇," *Phys. Rev. B* **81**, 180507(R), (2010. 05).
44. T. Park, Y. Tokiwa, F. Ronning, H. Lee, E. D. Bauer, R. Movshovich, and J. D. Thompson, "Field-induced quantum critical point in the pressure-induced superconductor CeRhIn₅," *Phys. Status Solidi B* **247**, 553-556 (2010. 03)
43. E. E. M. Chia, D. Talbayev, J.-X. Zhu, H. Q. Yuan, Tuson Park, J. D. Thompson, C. Panagopoulos, G. F. Chen, J. L. Luo, N. L. Wang, and A. T. Taylor, "Ultrafast pump-probe study of phase separation and competing orders in the underdoped (Ba, K)Fe₂As₂ superconductor," *Phys. Rev. Lett.* **104**, 027003 (2010. 01).
42. E. D. Bauer, Tuson Park, R. D. McDonald, M. J. Graf, L. N. Boulaevskii, J. N. Mitchell, J. D. Thompson, J. L. Sarrao, "Possible two-band superconductivity in PuRhGa₅ and CeRhIn₅," *J. Alloy Compd.* **488**, 554-557 (2009. 12. 04).
41. H. Lee, E. Park, Tuson Park, F. Ronning, E. D. Bauer, and J. D. Thompson, "Pressure-induced superconducting state of antiferromagnetic CaFe₂As₂," *Phys. Rev. B* **80**, 024519 (2009. 07).
40. S.-H. Baek, H. Lee, S. E. Brown, N. J. Curro, E. D. Bauer, F. Ronning, Tuson Park, and J. D. Thompson, "NMR investigation of superconductivity and antiferromagnetism in CaFe₂As₂ under pressure," *Phys. Rev. Lett.* **102**, 227601 (2009. 06).
39. Tuson Park and J. D. Thompson, "Magnetism and Superconductivity in strongly correlated CeRhIn₅," *New J. Phys.* **11**, 55062 (2009. 05).
38. F. Ronning, E. D. Bauer, Tuson Park, S.-H. Baek, H. Sakai, and J. D. Thompson, "Superconductivity and the effects of pressure and structure in single-crystalline SrNi₂P₂," *Phys. Rev. B* **79**, 134507 (2009. 04).
37. F. Ronning, E. D. Bauer, Tuson Park, N. Kurita, T. Klimczuk, R. Movshovich, A. S. Sefat, D. Mandrus, and J. D. Thompson, "Ni₂X₂ (X=pnictide, chalcogenide, or B) based superconductors," *Physica C* **469**, 396 (2009, 03).
36. E. Park, Tuson Park, J. L. Sarrao, and J. D. Thompson, "Evidence for correlation between spin and charge dynamics in La₂Cu_{1-x}Li_xO₄," *J. Appl. Phys.* **105**, 07E306

(2009. 02)

35. Tuson Park, V. A. Sidorov, F. Ronning, J. -X. Zhu, Y. Tokiwa, H. Lee, E. D. Bauer, R. Movshovich, J. L. Sarrao, and J. D. Thompson, “Isotropic quantum scattering and unconventional superconductivity,” *Nature* **456**, 366-368 (2008. 11).
34. Tuson Park, E. D. Bauer, J. D. Thompson, “Probing the nodal gap in the pressure-induced heavy fermion superconductor CeRhIn₅,” *Phys. Rev. Lett.* **101**, 177002 (2008. 10).
33. G. R. Jelbert, T. Sasagawa, J. D. Fletcher, Tuson Park, J. D. Thompson, and C. Panagopoulos, “Measurements of low energy charge correlations in underdoped spin-glass La-based cuprates using impedance spectroscopy,” *Phys. Rev. B* **78**, 132513 (2008. 10).
32. J. C. Lashley, S. M. Shapiro, B. L. Winn, C. P. Opeil, M. E. Manley, A. Alatas, W. Ratcliff, Tuson Park, R. A. Fisher, B. Mihaila, P. Riseborough, E. K. H. Salje, and J. L. Smith, “Observation of a continuous phase transition in a shape-memory alloy,” *Phys. Rev. Lett.* **101**, 135703 (2008. 09).
31. F. Ronning, N. Kurita, E. D. Bauer, B. L. Scott, Tuson Park, T. Klimczuk, R. Movshovich, and J. D. Thompson, “First order phase transition and superconductivity in BaNi₂As₂ single crystals,” *J. Phys.: Condens. Matter* **20**, 342203 (2008. 08).
30. Tuson Park, E. Park, H. Lee, T. Klimczuk, E. D. Bauer, F. Ronning, and J. D. Thompson, “Pressure-induced superconductivity in CaFe₂As₂,” *J. Phys.: Condens. Matter* **20**, 322204 (2008. 07).
29. K. E. Lee, C. I. Lee, H. J. Oh, H. J. Im, Tuson Park, S. Kimura, and Y. S. Kwon, “Optical evidence for a change in the heavy electron Fermi surface at a magnetic quantum critical point of CeNi_{1-x}Co_xGe₂,” *J. Phys.: Condens. Matter* **20**, 285202 (2008. 06).
28. L. Mendonca Ferreira, Tuson Park, V. Sidorov, M. Nicklas, E. M. Bittar, R. Lora-Serrano, E. N. Hering, S. M. Ramos, M. B. Fontes, E. Baggio-Siatovich, H. Lee, J. L. Sarrao, J. D. Thompson, and P. G. Pagliuso, “Tuning the pressure-induced superconducting phase in doped CeRhIn₅,” *Phys. Rev. Lett.* **101**, 017005 (2008. 07).
27. Tuson Park, M. J. Graf, L. Boulaevskii, J. L. Sarrao, and J. D. Thompson, “Electronic duality in strongly correlated matter,” *Proc. Nat. Acad. Sci.* **105**, 6825-6828 (2008. 05)
26. Tuson Park, Y. Tokiwa, E. D. Bauer, F. Ronning, R. Movshovich, J. L. Sarrao, J. D. Thompson, “Normal State Properties at a field-tuned quantum-critical point in the heavy fermion superconductor CeRhIn₅,” *Physica B* **403**, 943-945 (2008. 04).
25. R. Movshovich, Y. Tokiwa, F. Ronning, A. Bianchi, C. Capan, B. L. Young, R. R. Urbano, N. J. Curro, Tuson Park, J. D. Thompson, J. L. Sarrao, “Interplay of magnetism and superconductivity in CeCoIn₅,” *NATO Science for Peace and Security Series B – Physics and Biophysics*, 127-138 (2008) – ISI Proceedings.

24. Tuson Park, J. L. Sarrao, and J. D. Thompson, "New quantum phase in the heavy-fermion superconductor CeRhIn₅," *Physica C* **460-462**, 137-140 (2007. 09)
23. J. D. Thompson, N. J. Curro, Tuson Park, E. D. Bauer, and J. L. Sarrao, PuCoGa₅ and related materials," *J. Alloys and Compounds* **444-445**, 19-22 (2007. 10)
22. M. Nicklas, O. Stockert, Tuson Park, K. Habicht, K. Kiefer, L. D. Pham, J. D. Thompson, Z. Fisk, and F. Steglich., "Magnetic structure of Cd-doped CeCoIn₅," *Phys. Rev. B* **76**, 052401 (2007. 08)
21. Tuson Park, J. L. Sarrao, and J. D. Thompson, "Upper critical field scaling near a quantum critical point in the heavy-fermion compound CeRhIn₅," *J. Magn. Magn. Mater.* **310**, 712 (2007. 03)
20. J. D. Thompson, Tuson Park, N. J. Curro, F. Ronning, R. Movshovich, E. D. Bauer, and J. L. Sarrao, "Magnetism and unconventional superconductivity in isostructural cerium and plutonium compounds," *J. Magn. Magn. Mater.* **310**, 532 (2007. 03)
19. Tuson Park, F. Ronning, H. Yuan, M. B. Salamon, R. Movshovich, J. L. Sarrao, and J. D. Thompson, "Hidden magnetism and quantum criticality in the heavy fermion superconductor CeRhIn₅," *Nature* **440**, 65 (2006. 03).
18. Tuson Park, V. A. Sidorov, J. L. Sarrao, and J. D. Thompson, "Anomalous Pressure Dependence of Kadowaki-Woods ratio and crystal field effects in mixed-valence YbInCu₄," *Phys. Rev. Lett.* **96**, 046405 (2006. 02).
17. L. D. Pham, Tuson Park, S. Maquilon, J. D. Thompson, and Z. Fisk, "Reversible tuning of the heavy-fermion ground state in CeCoIn₅," *Phys. Rev. Lett.* **97**, 056404 (2006. 08)
16. J. D. Thompson, Tuson Park, N. J. Curro, and J. L. Sarrao, "Progress and puzzles in plutonium superconductors," *J. Phys. Soc. Jpn.* **75**, suppl. 1 (2006)
15. Elbert E. M. Chia, M. B. Salamon, Tuson Park, Heon-Jung Kim, and Sung-Ik Lee, "Observation of the spontaneous vortex phase in the weakly ferromagnetic superconductor ErNi₂B₂C: A penetration depth study," *Europhys. Lett.* **73**, 772 (2006).
14. S. M. Stishov, V. A. Sidorov, A. V. Tsvyashchenko, E. D. Bauer, A. E. Petrova, Tuson Park, and J. D. Thompson, "Phase diagram of ZrZn₂ at high pressure: low temperature features and elusive superconductivity," *Physica B* **378-380**, 411 (2006. 05).
13. Tuson Park, Z. Nussinov, K. R. A. Hazzard, V. A. Sidorov, A. V. Balatsky, J. L. Sarrao, S.-W. Cheong, M. F. Hundley, J. -S. Lee, Q. Jia, and J. D. Thompson, "A novel dielectric anomaly in cuprates and nickelates: signature of an electronic glassy state," *Phys. Rev. Lett.* **94**, 017002 (2005. 01).

12. Tuson Park, V. A. Sidorov, Hanoh Lee, Z. Fisk, and J. D. Thompson, “Pressure-tuned first-order phase transition and accompanying resistivity anomaly in $\text{CeZn}_{1-\delta}\text{Sb}_2$,” *Phys. Rev. B* **72**, R060410 (2005. 08).
11. Tuson Park, Y. Sun, M. B. Salamon, A. Malinovski, M. H. Hundley, Eun Mi Choi, Heon Jung Kim, Sung-Ik Lee, P. C. Canfield, V. G. Kogan and J. D. Thompson “Anomalous paramagnetic effects in the mixed state of $\text{LuNi}_2\text{B}_2\text{C}$,” *Phys. Rev. B* **71**, 054511 (2005. 02).
10. Elbert E. M. Chia, W. Cheong, Tuson Park, M. B. Salamon, Eun-Mi Choi, and Sung-Ik Lee, “Effect of magnetic order on the superfluid response of single-crystal $\text{ErNi}_2\text{B}_2\text{C}$: a penetration depth study,” *Phys. Rev. B* **72**, 214505 (2005. 12).
9. B. K. Lee, J. B. Hong, D. H. Ryu, D. Y. Kim, M. H. Jung, S. Kimura, Tuson Park, J. -G. Park, Y. -S. Kwon, “Various Kondo ground states and non-fermi-liquid behavior in heavy-fermion system $\text{CeNi}_{1-x}\text{Co}_x\text{Ge}_2$,” *Phys. Rev. B* **71**, 214433 (2005. 06).
8. Tuson Park, Elbert E. M. Chia, M. B. Salamon, E. D. Bauer, I. Vekhter, J. D. Thompson, Eun Mi Choi, Heon Jung Kim, Sung-Ik Lee and P. C. Canfield, “Evidence for the coexistence of anisotropic superconducting gap and nonlocal effects in the non-magnetic superconductor $\text{LuNi}_2\text{B}_2\text{C}$,” *Phys. Rev. Lett.* **92**, 237002 (2004).
7. Tuson Park, M. B. Salamon, Eun Mi Choi, Heon Jung Kim, and Sung-Ik Lee, “Specific heat study of the magnetic superconductor $\text{HoNi}_2\text{B}_2\text{C}$,” *Phys. Rev. B* **69**, 054505 (2004).
6. Tuson Park and M. B. Salamon, “Study on unconventional superconductors via angle-resolved specific heat,” *Mod. Phys. Letts. B* **18**, 1205 (2004).
5. Tuson Park, M. B. Salamon, Eun Mi Choi, Heon Jung Kim, and Sung-Ik Lee, “Direct observation of nodal quasiparticles in an unconventional superconductor: field-angle dependent heat capacity of $\text{YNi}_2\text{B}_2\text{C}$,” *Phys. Rev. Lett.* **90**, 177001 (2003).
4. Tuson Park, M. B. Salamon, C. U. Jung, Min-Seok Park, Kyunghee Kim, and Sung-Ik Lee, “Fluctuation study of the specific heat of MgB_2 ,” *Phys. Rev. B* **66**, 134515 (2002).
3. M. Jung, Tuson Park et al., “Heavy-fermion-like behavior in semiconductor Yb_3S_4 ,” *J. Kor. Phys. Soc.* **32**, 71 (1998. 01).
2. Y. S. Kwon, Tuson Park, J. M. Kim, K.S. An, I. S. Jeon, C. Y. Park, S. Kimura, T. Nanba, T. Matsumura, and T. Suzuki, “Far infrared transmission of SmTe under high pressure,” *Physica B.* **206 & 207**, 389 (1995).
1. Y. S. Kwon, Tuson Park, K. R. Lee, J. M. Kim, Y. Haga, and T. Suzuki, “Transport and optical properties of CeTe_2 ,” *J. Magn. Magn. Mater.* **140 – 144**, 1173 (1995. 02).

Invited and Contributed presentations

56. “Textured superconducting state in the quantum critical compound CeRhIn₅,” Invited Talk at International Conference on Superconductivity and Magnetism (ICSM2012), Istanbul, Turkey (April 29-May 4, 2012).
55. “Textured states in heavy fermion compounds,” Invited Talk at UK-Korea workshop on SCES, Oxfordshire, United Kingdom (April 12-13, 2012).
54. “Textured phase in quantum critical superconductors,” **Colloquium** in Inha University, Incheon, Korea (Nov. 17, 2011).
53. “Quantum critical superconductivity,” **Colloquium** in KAIST, Daejeon, Korea (Nov. 1st, 2011).
52. “Textured state in heavy fermion superconductors,” **Invited Talk** and chair in Korean Physical Society (KPS) Fall Meeting Meeting – Pioneering Symposium on Novel Superconductivity, Busan, Korea (Oct. 19-21, 2011).
51. **Organizing committee member** and **chair** in Ultra Low Temperature (ULT) 2011, KAIST, Korea (Aug. 18-21, 2011).
50. **Organizer** of SKKU-APCTP International Symposium on Heavy Electrons and Novel Quantum Phases, Suwon, Korea (Aug. 16-18, 2011).
49. “Study on the quantum critical superconductor via field-angle resolved specific heat,” **invited talk** at Calorimetry Conference (CALCON) 2011, Hawaii, USA (June 12-17, 2011).
48. “Quantum critical superconductivity in the heavy-fermion CeRhIn₅,” **invited talk** at 2011 Korean Physical Society (KPS) Spring Meeting – Pioneering Symposium on Novel Superconductivity, Daejeon, Korea (April 13-15, 2011).
47. “Calorimetric study on the superconducting order parameter of the pnictides superconductors,” **invited talk** at 2011 APCTP Winter Workshop on Frontiers in Electronic Quantum Matter, Pohang, Korea (Feb. 16-19, 2011).
46. “Unconventional superconductivity and magnetism in strongly correlated CeRhIn₅,” **plenary invited talk** at International Conference on Strongly Correlated Electron Systems (SCES 2010), Santa Fe, USA (June 27-July 2, 2010).
45. “Probing superconductivity in a pressure-tuned quantum critical metal CeRhIn₅,” **invited talk** at The 9th International Conference on Spectroscopies in Novel Superconductors (SNS 2010), Shanghai, China (May 23-28, 2010).
44. “Quantum criticality in Cd-doped Ce₁₁₅ compounds,” **invited talk** at 2010 Hangzhou Workshop

- on Quantum Matter, Hangzhou, China (May 18-22, 2010).
43. "Field-induced quantum critical point and unconventional superconductivity in CeRhIn₅," **invited talk** and session chair at International Conference on Superconductivity and Magnetism (ICSM2010), Antalya, Turkey (April 25-30, 2010).
 42. "Nodal superconductivity in the pressure-induced superconductor CeRhIn₅," **invited talk** at The Korean Physical Society-Pioneering Symposium on Novel Superconducting Phenomena, Daejeon, Korea (April 22, 2010).
 41. "Recent progress in the Ce115 heavy fermion compounds," **invited talk** at 10th Japan-Korea-Taiwan Symposium on Strongly Correlated Electron Systems, Himeji, Japan (March 11-13, 2010)
 40. "Quantum criticality in the strongly correlated CeRhIn₅," **invited talk** at KIAS Workshop on Frontiers in Condensed Matter Physics, Seoul, Korea (December, 2009).
 39. "Origin and consequence of quantum criticality in the heavy fermion compound CeRhIn₅," **oral presentation** at Korean Physical Society Fall Meeting, Changwon, Korea (October, 2009)
 38. "Unconventional superconductivity in the quantum critical compound CeRhIn₅," **invited talk** at the International Conference on Quantum Criticality and Novel Phases (QCNP09), Dresden, Germany (August 2-5, 2009).
 37. "Quantum critical point and unconventional superconductivity in CeRhIn₅" **invited talk** at Korea Superconductivity Society Meeting, Yongpyeong, Korea (July, 2009).
 36. "Magnetism and unconventional superconductivity in CeRhIn₅," **invited talk** at 8th Asia-Pacific Workshop on Novel Quantum Materials/2nd Workshop for A3 Foresight Program, Seoul, Korea (July, 2009).
 35. "New developments in our understanding of superconductivity in the 115 materials," **invited talk** at American Physical Society March Meeting, Pittsburgh, Pennsylvania, USA (March, 2009).
 34. "Pressure-induced superconductivity in CaFe₂As₂," **invited talk** at Spring Workshop on Superconductor New Materials by the Korean Superconductivity Society, Seoul, Korea (February, 2009).
 33. "Coexistence of magnetism and superconductivity," **oral presentation** at 53rd Conference on Magnetism and Magnetic Materials, Austin, Texas, USA (November, 2008)
 32. "Electronic duality in strongly correlated matter," **invited talk** at ICAM/DCHEM Workshop on Emergent Behavior in Heavy Electron Materials, Aspen, USA (August, 2008).
 31. "Electronic duality in the pressure-induced quantum critical metal CeRhIn₅," **oral presentation** at the 25th International Conference on Low Temperature Physics, Amsterdam, Netherlands (Aug. 2008).

30. “Electronic duality: coexistence of magnetism and superconductivity,” **invited talk** at International Workshop on Electronic Duality, Santa Fe, USA (May, 2008).
29. “Electronic duality in the pressure-tuned quantum critical metal CeRhIn₅,” **oral presentation** at APS March Meeting 2008, New Orleans, USA (March, 2008).
28. “Electronic duality in the f-electron quantum critical metal CeRhIn₅” **invited talk** at 2008 APCTP (Asia Pacific Center for Theoretical Physics) Workshop, Pohang, Korea (Jan. 2008)
27. “Isotropic quantum scattering in the vicinity of a magnetic quantum critical point” **invited talk** at Sung Kyun Kwan University, Suwon, Korea (Jan. 2008).
26. “Hidden magnetism, quantum criticality, and unconventional superconductivity in CeRhIn₅”, **poster presentation** at The Heavy Fermion Frontier, Santa Fe, New Mexico, USA (Nov, 2007)
25. “Is quantum criticality key to high-temperature superconductors?”, **invited talk** at US-Korea Conference 2007, Washington, DC, USA (August, 2007)
24. “Quantum criticality in the pressure-induced heavy fermion superconductor CeRhIn₅”, **invited talk** at ICAM Workshop on 115 Materials, Aspen, Colorado, USA (August, 2007)
23. “Vanishing energy scale at a quantum critical point in the heavy-fermion superconductor CeRhIn₅”, **oral presentation** at Conference on Strongly Correlated Electron Systems (SCES), Houston, Texas, USA (May, 2007)
22. “Probing hidden magnetism and quantum criticality in unconventional superconductors”, **invited talk** at Los Alamos National Laboratory Director’s Colloquium, Los Alamos, New Mexico, USA (May, 2007)
21. “Field-induced magnetism and quantum criticality in superconducting CeRhIn₅ under pressure”, **invited talk** at American Physics Society March Meeting, Denver, Colorado, USA (March, 2007).
20. “Field-induced magnetism in heavy fermion superconductor CeRhIn₅”, **invited talk** at workshop on Material Understanding, Lujan Center, Los Alamos, USA (November, 2006)
19. “Upper critical field scaling near quantum critical point in the heavy fermion compound CeRhIn₅”, **oral presentation** at International Conference on Magnetism (ICM), Kyoto, Japan (August, 2006)
18. “Is quantum criticality a key to unconventional superconductivity?” **invited talk** at Sung Kyun Kwan University, Suwon, Korea (August, 2006)
17. “Coexistence of field-induced magnetism and superconductivity in CeRhIn₅,” **invited talk** at Materials and Mechanisms of Superconductivity and High Temperature Superconductors (M2S-HTSC-VIII), Dresden, Germany (July, 2006)
16. “Hidden magnetism and quantum criticality in the heavy fermion superconductor CeRhIn₅,” **invited talk** at Gordon Conference on Correlated Electron Systems, Massachusetts, USA (June,

2006)

15. "Hidden magnetism, quantum criticality, and unconventional superconductivity in strongly correlated electron system," **invited talk** at Max Planck Institute for Chemical Physics of Solids, Dresden, Germany (April, 2006)
14. "Is quantum criticality relevant to H_{c2} scaling in the heavy-fermion compound $CeRhIn_5$?" **contributed talk** at APS March Meeting 2006, Baltimore, USA
13. "Hidden magnetism, quantum criticality, and unconventional superconductivity in strongly correlated electron system," **invited talk** at Boston University, USA (February, 2006)
12. "Hidden magnetism and quantum criticality in the heavy fermion superconductor $CeRhIn_5$," **poster presentation** at Gordon Conference on Superconductivity, California, USA (January, 2006)
11. "Search for quantum criticality in the heavy fermion superconductor $CeMIn_5$ ($M=Co, Ir, Rh$)," **invited talk** at MSTeas and Cookies, Los Alamos National Laboratory, New Mexico, USA (November, 2005)
10. "Hidden magnetism and quantum criticality in the heavy fermion superconductor $CeRhIn_5$," **poster presentation** at ICAM/I2CAM Annual Conference on Frontiers in Complex Adaptive Matter, Santa Fe, New Mexico, USA (Nov. 2005)
9. "Field-induced magnetism in the Unconventional Superconducting State of $CeRhIn_5$," **poster presentation** at ICAM Advanced Workshop on Strongly Correlated Electrons: Diverse Examples and Unifying Themes, in Corsica, France (August, 2005).
8. "Inhomogeneous Electronic State in the Hole-Doped $La_2Cu_{1-x}Li_xO_4$ and $La_{2-x}Sr_xNiO_4$ Insulators: Dielectric Study," **poster presentation** at International Workshop on Nanoscale Fluctuations in Magnetic and Superconducting Systems, Dresden, Germany (May, 2005).
7. "A Novel Dielectric Anomaly in Cuprates and Nickelates: Signature of an Electronic Glassy State," **invited talk** at American Physics Society March Meeting, Los Angeles, California, USA (March, 2005).
6. "Evidence for the Coexistence of Anisotropic Superconducting Gap and Nonlocal Effects in the Non-magnetic Superconductor $LuNi_2B_2C$," **invited talk** at Pohang University of Science and Technology, Korea (February, 2004).
5. "Study on unconventional superconductors via angle-resolved specific heat," **invited talk** at 2004 APCTP Winter workshop of the Strongly Correlated Electron System, Korea (February, 2004).
4. "Direct observation of nodal quasiparticles in unconventional superconductors: field-angle

dependent heat capacity of $\text{YNi}_2\text{B}_2\text{C}$,” **invited talk** at University of Illinois at Urbana-Champaign, Champaign, Illinois, USA (November, 2002).

3. “Direct observation of nodal quasiparticles in an unconventional superconductor: field-angle dependent heat capacity of $\text{YNi}_2\text{B}_2\text{C}$,” **poster presentation** at 50th Midwest Solid State Conference, Champaign, Illinois, USA (October, 2002).
2. “Fluctuation Study of the Specific Heat of MgB_2 ,” **contributed talk** at American Physics Society March Meeting, Indianapolis, Indiana, USA (March, 2002).
1. “Observation of Nodal Effects on in-plane Gap Spectrum of the Specific Heat in YBCO,” **contributed talk** at American Physics Society March Meeting, Minneapolis, Minnesota, USA (March, 2000).