

## Dr. Kent R. Shirer

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### PUBLICATIONS

1. **Kent R. Shirer**, Kimberley A. Modic, Tino Zimmerling, Maja D. Bachmann, Markus König, Philip, J. W. Moll, Leslie Schoop, and Andrew P. Mackenzie. Out-of-plane transport in ZrSiS and ZrSiSe microstructures. [APL Materials 7, 101116 \(2019\)](#)
2. M. D. Bachmann, G. M. Ferguson, F. Theuss, T. Meng, C. Putzke, T. Helm, **K. R. Shirer**, Y.-S. Li, K. A. Modic, M. Nicklas, M. Koenig, D. Low, S. Ghosh, A. P. Mackenzie, F. Arnold, E. Hassinger, R. D. McDonald, L. E. Winter, E. D. Bauer, F. Ronning, B. J. Ramshaw, K. C. Nowack, P. J. W. Moll. Spatially control of heavy-fermion superconductivity in CeIrIn<sub>5</sub>. [Science 366, 6462 \(2019\)](#)
3. T. Helm, A. Grockowiak, F. F. Balakirev, J. Singleton, **K. R. Shirer**, M. König, E. D. Bauer, F. Ronning, S. W. Tozer, and P. J. W. Moll. Pressure-induced critical suppression of high-field nematicity in CeRhIn<sub>5</sub> [arXiv:1902.00970 \[cond-mat.str-el\] \(2019\)](#)
4. **K. R. Shirer**, Y. Sun, M. D. Bachmann, C. Putzke, T. Helm, L. E. Winter, F. F. Balakirev, R. D. McDonald, J. G. Analytis, N. L. Nair, E. D. Bauer, F. Ronning, C. Felser, T. Meng, B. Yan, P. J. W. Moll. Dirac fermions in the heavy-fermion superconductors Ce(Co,Rh,Ir)In<sub>5</sub>. [arXiv:1808.00403 \[cond-mat.str-el\] \(2018\)](#)
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6. M. Lawson, B. T. Bush, T. Kissikov, Z. Brubaker, **K. R. Shirer**, J. R. Jeffries, S. Ran, I. Jeon, M. B. Maple, and N. J. Curro. Measurements of the NMR Knight shift tensor and nonlinear magnetization in URu<sub>2</sub>Si<sub>2</sub>. [Phys. Rev. B 97, 075138 \(2018\)](#)
7. F. Ronning, T. Helm, **K. R. Shirer**, M. Bachmann, L. Balicas, M. Chan, B. J. Ramshaw, R. D. McDonald, F. F. Balakirev, M. Jaime, E. D. Bauer, and P. J. W. Moll. Electronic in-plane symmetry breaking at field-tuned quantum criticality in CeRhIn<sub>5</sub>. [Nature 548, 313 - 317 \(2017\)](#)
8. **K. R. Shirer**, M. Lawson, T. Kissikov, B. T. Bush, A. Gallagher, K.-W. Chen, R. E. Baumbach, and N. J. Curro. NMR investigation of antiferromagnetism and coherence in URu<sub>2</sub>Si<sub>2-x</sub>P<sub>x</sub>. [Phys. Rev. B 95, 041107\(R\), \(2017\).](#)\*
9. A. P. Dioguardi, T. Kissikov, C. H. Lin, **K. R. Shirer**, M. M. Lawson, H. -J. Grafe, J. -H. Chu, I. R. Fisher, R. M. Fernandes, and N. J. Curro. NMR Evidence for Inhomogeneous Nematic Fluctuations in BaFe<sub>2</sub>(As<sub>1-x</sub>P<sub>x</sub>)<sub>2</sub>. [Phys. Rev. Lett. 116, 107202, \(2016\)](#)
10. **K. R. Shirer**, A. P. Dioguardi, B. T. Bush, J. Crocker, C. H. Lin, P. Klavins, J. C. Cooley, M. B. Maple, K. B. Chang, K. R. Poeppelmeier, and N. J. Curro. <sup>29</sup>Si nuclear magnetic resonance study of URu<sub>2</sub>Si<sub>2</sub> under pressure. [Physica B: Cond. Matt., Volume 481, Pages 232-235, \(2016\).](#)
11. C. H. Lin, **K. R. Shirer**, J. Crocker, A. P. Dioguardi, M. M. Lawson, B. T. Bush, P. Klavins, and N. J. Curro. Evolution of hyperfine parameters across a quantum critical point in CeRhIn<sub>5</sub> [Phys. Rev. B 92, 155147 \(2015\)](#).
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16. A. P. Dioguardi, J. Crocker, A. C. Shockley, C. H. Lin, **K. R. Shirer**, D. M. Nisson, M. M. Lawson, N. apRoberts-Warren, P. C. Canfield, S. L. Bud'ko, S. Ran, and N. J. Curro. Coexistence of Cluster Spin Glass and Superconductivity in  $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$  for  $0.060 \leq x \leq 0.071$ . *Phys. Rev. Lett.* **111**, 207201 (2013).
17. D. M. Nisson, A. P. Dioguardi, P. Klavins, C. H. Lin, **K. R. Shirer**, A. C. Shockley, J. Crocker, and N. J. Curro. Nuclear magnetic resonance as a probe of electronic states of  $\text{Bi}_2\text{Se}_3$ . *Phys. Rev. B*, **87**, 195202, May (2013).
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21. J. Pollanen, J. P. Davis, B. Reddy, **K. R. Shirer**, H. Choi and W. P. Halperin. Superfluid Phase Stability of  $^3\text{He}$  in Axially Anisotropic Aerogel, *J. Phys.: Conf. Ser.* **150**, 032084 (2009).
22. J. Pollanen, **K. R. Shirer**, S. Blinstein, J. P. Davis, H. Choi, T. M. Lippman, L. B. Lurio, and W. P. Halperin. Globally Anisotropic High Porosity Silica Aerogels. *J. Non-Crystalline Solids* **354**, 4668 (2008).
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\*Editor's Suggestion or Rapid Communication