

# List of Publications of Tao Xiang

## I. Monograph:

1. **T. Xiang**, “D-wave Superconductivity” (in Chinese), Science Press, Beijing 2007

## II. Papers published in peer-reviewed scientific journals

1. H. Wang, J. Guo, E. D. Bauer, V. A. Sidorov, H. Zhao, J. Zhang, Y. Zhou, Z. Wang, S. Cai, K. Yang, A. Li, X. Li, Y. Li, P. Sun, Y. F. Yang, Q. Wu, T. Xiang, J. D. Thompson, L. Sun, Superconductivity in pressurized CeRhGe<sub>3</sub> and related noncentrosymmetric compounds, *Physical Review B* **97**, 064514 (2018). [arXiv:1708.05837](https://arxiv.org/abs/1708.05837)
2. H. D. Xie, R. Z. Huang, X. J. Han, X. Yan, H. H. Zhao, Z. Y. Xie, H. J. Liao, and T. Xiang, Reorthonormalization of Chebyshev matrix product states for dynamical correlation functions, *Physical Review B* **97**, 075111 (2018). [arXiv:1711.09207](https://arxiv.org/abs/1711.09207)
3. Jing Chen, Song Cheng, Haidong Xie, Lei Wang, Tao Xiang, Equivalence of Restricted Boltzmann Machines and Tensor Network States, *Physical Review B* **97**, 085104 (2018) (Editors Suggestion). [arXiv:1701.04831](https://arxiv.org/abs/1701.04831)
4. W. Yang, T. Xiang, C. Wu, Majorana surface modes of nodal topological pairings in spin-3/2 semimetals, *Physical Review B* **96**, 144514 (2017). [arXiv:1707.07261](https://arxiv.org/abs/1707.07261)
5. J. Guo, H. Wang, F. von Rohr, W. Yi, Y. Zhou, Z. Wang, S. Cai, S. Zhang, X. Li, Y. Li, J. Liu, K. Yang, A. Li, S. Jiang, Q. Wu, T. Xiang, R. J. Cava, L. Sun, Electron-hole balance and the anomalous pressure-dependent superconductivity in black phosphorus, *Physical Review B* **96**, 224513 (2017). [arXiv:1611.03330](https://arxiv.org/abs/1611.03330v1). (<https://arxiv.org/abs/1611.03330v1>)
6. J. Xue, K. Seo, L. Tian, T. Xiang, Quantum phase transition in a multiconnected Jaynes-Cummings lattice, *Physical Review B* **96**, 174502 (2017). [arXiv:1702.01922](https://arxiv.org/abs/1702.01922)
7. T. Xiang and J. Xue, Challenges in the study of high temperature superconductivity **46**, 514 (2017).
8. Z. Y. Xie, H. J. Liao, R. Z. Huang, H. D. Xie, J. Chen, Z. Y. Liu, T. Xiang, Optimized contraction scheme for tensor-network states, *Physical Review B* **96**, 045128 (2017). [arXiv:1705.08577](https://arxiv.org/abs/1705.08577)

9. X. J. Han, H. J. Liao, H. D. Xie, R. Z. Huang, Z. Y. Meng, T. Xiang, Analytic Continuation with Padé Decomposition, *Chinese Physics Letters* **34**, 277102 (2017)
10. M. Gao, X. Kong, X. W. Yan, Z. Y. Lu, T. Xiang, Pair-checkerboard antiferromagnetic order in  $\beta$ -Fe<sub>4</sub>Se<sub>5</sub> with  $\sqrt{5} \times \sqrt{5}$  ordered Fe vacancies, *Physical Review B* **95**, 174523 (2017) [arXiv:1703.02240](https://arxiv.org/abs/1703.02240)
11. H. J. Liao, Z. Y. Xie, J. Chen, Z. Y. Liu, H. D. Xie, R. Z. Huang, B. Normand, T. Xiang, Gapless spin-liquid ground state in the S=1/2 kagome antiferromagnet, *Physical Review Letters* **118**, 137202 (2017) (Editors' suggestion). [arXiv:1610.04727](https://arxiv.org/abs/1610.04727) [[A viewpoint written by Bryan Clark from the University of Illinois at Urbana-Champaign was published 29 March 2017 Physics 10, 33](#)]
12. J. Chen, H.-J. Liao, H. D. Xie, X. J. Han, R. Z. Huang, S. Cheng, Z. C. Wei, Z. Y. Xie, T. Xiang Phase Transition of the q-State Clock Model: Duality and Tensor Renormalization, *Chinese Physics Letters* **34**, 050503 (2017) (Express Letter).
13. G. He, Y. Jia, X. Hou, Z. Wei, H. Xie, Z. Yang, J. Shi, J. Yuan, L. Shan, B. Zhu, H. Li, L. Gu, K. Liu, T. Xiang, K. Jin, Anisotropic electron-phonon coupling in the spinel oxide superconductor LiTi<sub>2</sub>O<sub>4</sub>, *Physical Review B* **95**, 054510 (2017). [arXiv:1606.06109](https://arxiv.org/abs/1606.06109)
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  22. K. Liu, M. G, Z.Y. Lu, T. Xiang, First-principles study of FeSe epitaxial films on SrTiO<sub>3</sub>, *Chinese Physics B* **24**, 117402 (2015).
  23. M. Gao, Z.Y. Lu, T. Xiang, Prediction of phonon-mediated high temperature superconductivity in Li<sub>3</sub>B<sub>4</sub>C<sub>2</sub>, *Physical Review B* **91**, 045132 (2015) arXiv:1307.1323
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