

## LIST OF PUBLICATIONS

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### JOURNAL ARTICLES AND PREPRINTS

[overall SCI citation > 2800. H-index = 27]

1. Rufus Boyack, Zhiqiang Wang, **Qijin Chen**, and K. Levin, *Unified approach to electrical and thermal transport in high-T<sub>c</sub> superconductors*, [Phys. Rev. B \*\*104\*\*, 064508 \(2021\)](#); [arXiv:2104.04879](#).
2. Z.Q. Wang, G. Chaudhary, **Q.J. Chen**, and K. Levin, *Quantum geometric contributions to the BKT transition: Beyond mean field theory*, [Phys. Rev. B \*\*102\*\*, 184504 \(2020\)](#); [arXiv:2007.15028](#).
3. J.B. Wang, L.F. Zhang, Y. Yu, C.H. Lee, and **Q.J. Chen**, *Superfluidity and pairing phenomena in ultracold atomic Fermi gases in one-dimensional optical lattices. II. Effects of population imbalance*, [Phys. Rev. A \*\*101\*\*, 053618 \(2020\)](#); [arXiv:2001.04922](#).
4. J.B. Wang, L.F. Zhang, Y. Yu, C.H. Lee, and **Q.J. Chen**, *Superfluidity and pairing phenomena in ultracold atomic Fermi gases in one-dimensional optical lattices. I. Balanced case*, [Phys. Rev. A \*\*101\*\*, 053617 \(2020\)](#); [arXiv:2001.00545](#).
5. H. Caldas and **Q.J. Chen**, *The Gor'kov and Melik-Barkhudarov correction to the mean-field critical field transition to Fulde-Ferrell-Larkin-Ovchinnikov states*, [Ann. Phys. \(Berlin\) \*\*2020\*\*, 2000222](#); [arXiv:1912.10215](#).
6. C.C. Xu, N.H. Wu, G.-X. Zhi, B.-H. Lei, X. Duan, F.L. Ning, C. Cao, **Q.J. Chen**, *Coexistence of nontrivial topological properties and strong ferromagnetic fluctuations in A<sub>2</sub>Cr<sub>3</sub>As<sub>3</sub>*, [npj Computational Materials \*\*6\*\*, 30 \(2020\)](#); [arXiv:1909.04346](#).
7. X.Y. Wang, **Q.J. Chen**, and K. Levin, *Strong Pairing in two dimensions: Pseudogap and other phenomena*, [New J. Phys. \*\*22\*\*, 063050 \(2020\)](#); [arXiv:1907.06121](#).
8. **Q.J. Chen**, J.B. Wang, and Y. Yu, *Unusual destruction and enhancement of superfluidity of atomic Fermi gases by population imbalance in a one-dimensional optical lattice*, [Chin. Phys. Lett. \*\*37\*\*, 053702 \(Express Letter\) \(2020\)](#); [arXiv:1904.09576](#).
9. X.Y. Wang, Rufus Boyack, **Q.J. Chen**, and K. Levin, *Combined effects of pairing fluctuations and a pseudogap in the Cuprate Hall effect*, [Phys. Rev. B \*\*99\*\*, 134504 \(2019\)](#); [arXiv:1812.05140](#).
10. X.-P. Liu, X.-C. Yao, H.-Z. Chen, X.-Q. Wang, Y.-X. Wang, Y.A. Chen, **Q.J. Chen**, K. Levin, J.-W. Pan, *Probing the many-body physics via measurement of the closed-channel fraction in a <sup>6</sup>Li superfluid*, [arXiv:1903.12321](#); submitted to PRL.
11. L.F. Zhang, J.B. Wang, Y. Yu, and **Q.J. Chen**, *Ultra high temperature superfluidity in ultracold atomic Fermi gases with mixed dimensionality*, [Sci. China: Phys. Mech. Astro. \*\*63\*\*, 227421\(2020\)](#); [arXiv:1807.05049](#). (Altmetric = 23)
12. C.C. Xu, **Q.J. Chen**, and C. Cao, *Unique crystal field splitting and multiband RKKY interactions in Ni-doped EuRbFe<sub>4</sub>As<sub>4</sub>*, [Commun. Phys. \*\*2\*\*, 16 \(2019\)](#); [arXiv:1902.06867](#).

13. **Qijin Chen**, *Generalization of BCS theory to short coherence length superconductors: A BCS--Bose-Einstein crossover scenario*, arXiv:[1801.06266](https://arxiv.org/abs/1801.06266) (PhD dissertation, Univ Chicago, 2000).
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