Zhesen Yang
Kavli Institute for Theoretical Sciences (KITS),
University of Chinese Academy of Sciences (UCAS),
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ACADEMIC DETAILS

University	Education	Year	Supervisor
KITS, UCAS	Postdoctoral Fellow	2020-Present	Fuchun Zhang
Institute of Physics, Chinese Academy of Sciences	Ph. D. in Theoretical Physics	2014-2020	Jiangping Hu
College of Physics, Jilin University	Bachelor of Science in Physics	2008-2012	

FIELDS OF INTEREST

- **Non-Hermitian system**, Topological semimetals and Non-equilibrium phenomena

PHYSICAL TASTE

- Searching for simplest models to illustrate deepest concepts.

TECHNICAL SKILLS

- **Languages** (Fluent English and native Chinese), **Numerical calculations** (Mathematica, Matlab), **Scientific drawings** (Mathematica), **Tools** (LaTeX).

AWARDS

- National Scholarship, 2018. 5% successful rate.

STRENGTHS

- Independent research (including searching projects and writing papers), Creativity, A wide range of collaboration, Positive Attitude and Hardworking.

INTEREST AND HOBBIES

- Solving Puzzles.
- Football and basketball.

PUBLICATIONS

- Intrinsic dissipative Floquet superconductors beyond mean-field theory
  Qinghong Yang, ***Zhesen Yang****, and Dong E. Liu*
  arXiv:2009.08351 (PRB under review)
- Helical damping and anomalous critical non-Hermitian skin effect
  Chun-Hui Liu, Kai Zhang, ***Zhesen Yang****, and Shu Chen*
  Phys. Rev. Research 2, 043167 (2020)
- Dissipative Floquet Majorana modes in proximity-induced topological superconductors
  Zhesen Yang*, Qinghong Yang, Jiangping Hu, and Dong E. Liu*
  arXiv:2004.14918 (PRL under review)
- Non-Hermitian skin modes induced by on-site dissipations and chiral tunneling effect
  Yifei Yi, and ***Zhesen Yang***†
  Phys. Rev. Lett. 125, 186802 (2020)

- The Bulk-boundary Correspondence in Non-Hermitian Hopf-link Exceptional Line Semimetals
  Zhicheng Zhang, ***Zhesen Yang***, *and Jiangping Hu*
  Phys. Rev. B 102, 045412 (2020)

- Auxiliary generalized Brillouin zone approach in non-Hermitian band theory
  Zhesen Yang, *Kai Zhang, Chen Fang, and Jiangping Hu,*
  arXiv:1912.05499 (To appear in PRL)

- Fermion doubling theorems in 2D non-Hermitian systems for Fermi points and exceptional points
  Zhesen Yang, *A. P. Schnyder, Jiangping Hu, and Ching-Kai Chiu*
  arXiv:1912.02788 (PRL under review)

- Correspondence between winding numbers and skin modes in non-hermitian systems
  *Kai Zhang**, ***Zhesen Yang****, and Chen Fang*
  Phys. Rev. Lett. 125, 126402 (2020) (Editors' Suggestion)

- Jones polynomial and knot transitions in topological semimetals,
  Zhesen Yang, *Ching-Kai Chiu, Chen Fang, and Jiangping Hu,*
  Phys. Rev. Lett. 124, 186402 (2020) (Editors' Suggestion)

- Non-Hermitian Hopf-link exceptional line semimetals,
  Zhesen Yang, *and Jiangping Hu,*
  Phys. Rev. B 99, 081102 (2019) (R)

- $\pi/2$-Josephson junction as a topological superconductor,
  Zhesen Yang, *Shengshan Qin, Qiang Zhang, Chen Fang, and Jiangping Hu,*
  Phys. Rev. B 98, 104515 (2018)

CONFERENCE ATTENDED

- Workshop on PT-Symmetry and Physics with Non-Hermitian Hamiltonians, (Mar. 18 to 22 2019), Sanya, China

- School on Unconventional Superconductivity (SUNSET 2017), Cargese, Corsica, France.

- Topological States and Phase Transitions in Strongly Correlated Systems, (Jul. 3 - 21, 2017), Beijing, China.