

# Yubo Shi

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Date of birth: March 12, 1999

Nationality: China

## Education background

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<b>PhD</b>	physics, Nankai University	09.2021-on
<i>Thesis:</i>	"Nonequilibrium dynamics in quantum many-body systems."	
<i>Advisor:</i>	Prof. Zhi Song	
<b>B. Sc.</b>	physics, Nankai University	09.2017-06.2021
<i>Thesis:</i>	"Dynamic magnetization in non-Hermitian systems." (outstanding)	
<i>Advisor:</i>	Prof. Zhi Song	

## Publication List

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1. **Y. B. Shi** and Z. Song, Robust unidirectional phantom helix states in the XXZ Heisenberg model with Dzyaloshinskii-Moriya interaction, [Phys. Rev. B 108, 085108 \(2023\)](#).
2. **Y. B. Shi** and Z. Song, Topological phase in a Kitaev chain with spatially separated pairing processes, [Phys. Rev. B 107, 125110 \(2023\)](#).
3. **Y. B. Shi**, K. L. Zhang and Z. Song, Dynamic generation of nonequilibrium superconducting states in a Kitaev chain, [Phys. Rev. B 106, 184505 \(2022\)](#).
4. **Y. B. Shi**, K. L. Zhang, and Z. Song, Exceptional spectrum and dynamic magnetization, [J. Phys.: Condens. Matter 34 485401 \(2022\)](#).
5. **Y. B. Shi** and Z. Song, Fixed line in a non-Hermitian Kitaev chain with spatially balanced pairing processes, [Phys. Rev. B 108, 125121 \(2023\)](#).
6. **Y. B. Shi**, X. Z. Zhang, and Z. Song, Emerging topological characterization in non-equilibrium states of quenched Kitaev chains, [arXiv:2311.08056](#).
7. C. H. Zhang, **Y. B. Shi**, and Z. Song, Generalized phantom helix states in quantum spin graphs, [arXiv:2310.11786](#).

## Scholarships

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| 2023 | The First Prize Scholarship awarded by Nankai University                   |
| 2022 | The First Prize Scholarship awarded by Nankai University                   |
| 2022 | Cultural and Athletic Scholarships (Academic) awarded by Nankai University |
| 2021 | The Third Prize Scholarship awarded by Nankai University                   |
| 2020 | The First Prize Scholarship awarded by Nankai University                   |
| 2018 | Cultural and Athletic Scholarships (Sports) awarded by Nankai University   |

## Research Interests

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Quantum many-body systems • Quantum dynamics • Nonequilibrium phenomena  
Non-Hermitian systems • Topological classification • Quantum phase transition

## Work & Internship Experiences

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<b>Visiting Student</b> , Max Planck Institute for the Physics of Complex Systems	01.2023-on
<b>Teaching Assistant</b> , Mechanics, Nankai University	09.2022-01.2023
<b>Teaching Assistant</b> , Quantum Mechanics, Nankai University	09.2020-01.2021
<b>Intern</b> , Shanghai Institute of Technical Physics, Chinese Academy of Sciences	06.2019-09.2019
<b>Visiting Student</b> , Tsinghua University	01.2018-03.2018
<b>Intern</b> , ESINT Networks Ltd.	05.2021-07.2021