

Zhulong Xue

Curriculum Vitae

(Jul. 2025)

Personal Details

Name: Zhulong Xue
Date of Birth: September, 1998
Nationality: Chinese
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Address: Academy of Mathematics and Systems Science, Chinese Academy of Science, 100190, Beijing, China

Research Interests

Analysis and partial differential equations

Employment

Jul. 2025 — present **Post-doc Researcher**, Chinese Academy of Science
Mentor: Quoc-Hung Nguyen

Education

Sep. 2020—Jun. 2025 **Beijing Normal University**, PhD in mathematics **Supervisor:** Liutang Xue
Sep. 2016—Jun. 2020 **Chang'an University**, BS in mathematics

Research Stays

Oct. 2023 — Oct. 2024 **Visiting PhD student**, University of Seville, Spain
Supervisor: Francisco Gancedo
Funded by China Scholarship Council (No. 202306040124)
Sep. 2024 — Oct. 2024 **Visiting PhD student**, University of Granada, Spain
Host: Claudia García

Publications and Preprints

1. Taoufik Hmidi, Liutang Xue, and Zhulong Xue. *Doubly connected V-states in geophysical models: a general framework*. arXiv:2504.08143.
2. Qianyun Miao, Changhui Tan, Liutang Xue, and Zhulong Xue. *Local regularity and finite-time singularity for a class of generalized SQG patches on the half-plane*. ArXiv:2410.19273.
3. Taoufik Hmidi, Liutang Xue, and Zhulong Xue. *Unified theory on V-states structures for active scalar equations*. ArXiv:2312.02874.
4. Taoufik Hmidi, Liutang Xue, and Zhulong Xue. *Emergence of time periodic solutions for the generalized surface quasi-geostrophic equation in the disc*. Journal of Functional Analysis **285** (2023), no. 10, Paper No. 110142.

Invited Talks

16/10/2024 PhD seminar, IMUS, University of Seville, Spain
21/03/2024 Ecuaciones Diferenciales seminar, IMAG, University of Granada, Granada, Spain
13/11/2023 Fluid Conversations seminar, IMUS, University of Seville, Spain

Conferences

- Jul. 2025 *Mathematical theory on Navier-Stokes equation*, Peking University, China
- Jun. 2025 *Advances in Mathematical Fluid Dynamics*, Peking University, China
- Nov. 2024 *Mixing, enhanced dissipation and stability effects in fluid dynamics*, Kunming, China
- Jul. 2024 *Alhambra PDE days*, IMAG, University of Granada, Spain
- Jul. 2024 *9th European Congress of Mathematics*, University of Seville, Spain

Awards

- Dec. 2023 First-class Scholarship, Beijing Normal University, China
- Jul. 2023 Scholarship for study abroad, China Scholarship Council, China
- Dec. 2022 First-class Scholarship, Beijing Normal University, China
- Dec. 2021 First-class Scholarship, Beijing Normal University, China
- Dec. 2019 National Scholarship for undergraduate students, Ministry of Education of China, China