

Zhilong Xue

Curriculum Vitae

(Dec. 2025)

Personal Details

Name: Zhilong Xue

Date of Birth: September, 1998

Nationality: Chinese

Website: <https://www.zhilongxue.cn>

Email: zhilongxue@amss.ac.cn; zhilongxue@mail.bnu.edu.cn

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. Changhui Tan, Liutang Xue, and Zhilong Xue. *A revisit of patch solutions for the 2D Loglog-Euler type equation.* arXiv:2510.18759.
2. Taoufik Hmidi, Liutang Xue, and Zhilong Xue. *Doubly connected V-states in geophysical models: a general framework.* arXiv:2504.08143.
3. Qianyun Miao, Changhui Tan, Liutang Xue, and Zhilong Xue. *Local regularity and finite-time singularity for a class of generalized SQG patches on the half-plane.* arXiv:2410.19273.
4. Taoufik Hmidi, Liutang Xue, and Zhilong Xue. *Unified theory on V-states structures for active scalar equations.* Advances in Mathematics **486** (2026), Paper No. 110750.
5. Taoufik Hmidi, Liutang Xue, and Zhilong 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