

Jungkyoung Na

Curriculum Vitae (September 2025)

✉ jungkyoung_na@brown.edu
🌐 <https://jungkyoungna.github.io>

Education

- Sep. 2023 – **Ph.D. in Mathematics**, *Brown University*, USA
Present Advisor: Javier Gómez-Serrano
- Sep. 2021 – **M.S. in Mathematical Sciences**, *Seoul National University*, South Korea
Aug. 2023 Advisor: In-Jee Jeong
- Mar. 2015 – **B.S. in Mathematics**, *Hanyang University*, South Korea
Aug. 2021 Advisor: Seunghyeok Kim
- Oct. 2016 – **Auxiliary Police (military service)**, *Seoul Metropolitan Police Agency*, South Korea
Jul. 2018 Honorably discharged

Research Interests

Partial differential equations arising from fluid dynamics

Publications

5. **J. Na**, Global self-similar solutions for the 3D Muskat equation, *Arch. Rational Mech. Anal.* **249** (2025), no. 53.
4. D. Chae, I.-J. Jeong, **J. Na** & S.-J. Oh, Well-posedness for the Ohkitani model and long-time existence for surface quasi-geostrophic equations, *Comm. Math. Phys.* **406** (2025), no. 4.
3. I.-J. Jeong, **J. Na** & T. Yoneda, Weakened vortex stretching effect in three-scale hierarchy for the 3D Euler equations, *Nonlinearity* **37** (2024), no. 5.
2. **J. Na**, Finite-time blow-up in a hyperbolic Keller–Segel system of consumption type with logarithmic sensitivity, *Nonlinearity* **37** (2024), no. 4.
1. **J. Na**, Global well-posedness for a two-dimensional Keller–Segel–Euler system of consumption type, *J. Differential Equations* **388** (2024), 188–214.

Invited Talks

- Oct. 2025 AMS Special Session “Singularity Formation in Fluid Dynamics,” AMS Fall Southeastern (scheduled) Sectional Meeting, Tulane University
- Aug. 2025 Department Seminar, Hanyang University, Seoul
- Apr. 2025 Graduate Lecture Series in Analysis and PDEs, Brown University
- Nov. 2022 Department Seminar, Yonsei University, Seoul
- Aug. 2022 UNIST/SNU Fluid PDEs Workshop, Seoul

Teaching Experience

- Fall 2025 Teaching Assistant – Math 0100 (Single-Variable Calculus II), Brown University
- Spring 2025 Teaching Assistant – Math 0100 (Single-Variable Calculus II), Brown University
- Fall 2024 Teaching Assistant – Math 0100 (Single-Variable Calculus II), Brown University