

# Hyungjun Choi

## CONTACT

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## EDUCATION

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**Princeton University** Princeton, NJ  
Ph.D. Candidate in Mathematics 2022 – Expected 2027

*Advisors:* Peter Constantin and Alexandru Ionescu

**Seoul National University** Seoul, Korea  
B.S. in Mathematics and B.A. in Economics 2015 – 2022

## PUBLICATIONS & PREPRINTS

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- [1] H. Choi, M. Coiculescu. “Multi-Sink Solutions to the Self-Similar Euler Equations.” *arXiv:2602.15152* (2026).
  - [2] H. Choi. “Asymmetric Self-similar Spiral Solutions of 2-D Incompressible Euler Equations.” *arXiv:2507.05059* (2025).
  - [3] H. Choi. “Global well-posedness of slightly supercritical SQG equations and gradient estimate.” *Nonlinearity*, 36(5), 2023.
  - [4] H. Choi, H. Park, S.-Y. Ha. “Emergent behaviors of discrete Lohe aggregation flows.” *Discrete and Continuous Dynamical Systems - Series B*, 27(1), 2022.
- (Contributed) QEDBENCH: “Quantifying the Alignment Gap in Automated Evaluation of University-Level Mathematical Proofs.” *ICML 2026*, *arXiv:2602.20629*

## INVITED TALKS & PRESENTATIONS

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Current Trends in Fluid Dynamics, *Brin MRC* Apr. 2026  
Analysis of Fluids and Related Topics Seminar, *Princeton University* Oct. 2025  
Analysis Seminar, *Caltech* June 2024  
PDE Seminar (online), *SNU* Nov. 2022

## TEACHING

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**Princeton University**  
Preceptor, *Freshman Scholars Institute* Summer 2026  
Preceptor & TA (Multivariate Calculus, Real & Complex Analysis) 2023 – 2026

**Seoul National University**  
Undergraduate TA (Calculus I) Fall 2019  
Tutoring Program (Intro to Analysis) Summer 2019

## SELECTED HONORS & AWARDS

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Overseas PhD Scholarship Program, <i>Korea Foundation for Advanced Studies</i>	2021 – present
Simon Marais Mathematics Competition	2 <sup>nd</sup> place, 2019
The Presidential Science Scholarship, <i>Korea Student Aid Foundation</i>	2014 – 2021
Academic Excellence Prize, <i>Dean's List</i>	2016, 2017, 2019, 2020

## COMPUTER SKILLS

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[Fluent]  $\text{\LaTeX}$ , Python, Mathematica, MATLAB    [Minimal] HTML/CSS, Java

## OTHER SERVICES

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Industrial and Mathematical Data Analysis Research Center (SNU), <i>Research Assistant</i>	2020
Republic of Korea Air Force	2017 – 2019