

LINFENG LI

Department of Mathematics
University of California Los Angeles
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APPOINTMENT

Hedrick Assistant Adjunct Professor
University of California Los Angeles
Mentor: Jacob Bedrossian

July 2023 – present
Los Angeles, US

EDUCATION

Ph.D. in Applied Mathematics
University of Southern California
Advisors: Juhi Jang and Igor Kukavica

Aug. 2017 – May 2023
Los Angeles, US

M.S. in Mathematical Finance
University of Southern California

Aug. 2015 – May 2017
Los Angeles, US

B.S. in Financial Engineering
Jilin University

Aug. 2011 – June 2015
Changchun, China

RESEARCH INTERESTS

Partial differential equations, fluid mechanics, and nodal geometry.

AWARDS

Chinese Government Award for Outstanding Self-financed Students Abroad June 2023

USC Center for Applied Mathematical Science Graduate Student Prize Apr. 2022

USC Theodore Edward Harris Graduate Research Prize Mar. 2022

PUBLICATIONS AND PREPRINTS

1. A global existence result on weak solutions for the 3D Navier-Stokes-plate system with no contact (with M. Bukal, I. Kukavica, and B. Muha), submitted.
2. Stability threshold of nearly-Couette shear flows with nonslip boundary conditions in 2D (with J. Bedrossian, S. He, S. Iyer, and F. Wang), arXiv 2510.16378, submitted.
3. A no-contact result for a plate-fluid interaction system in dimension three (with M. Bukal, I. Kukavica, and B. Muha), arXiv 2510.09992, submitted.
4. Nodal set for the Schrödinger equation under a local growth condition (with I. Kukavica), arXiv 2507.19600, submitted.
5. Upper bounds of nodal sets for Gevrey regular parabolic equations (with G. Camliyurt and I. Kukavica), arXiv 2409.09879, submitted.
6. Observability from a measurable set for functions in a Gevrey class (with I. Kukavica), Proc. Lond. Math. Soc. (3) **130** (2025), no. 5, Paper No. e70052, 13 pp.

7. On the local existence of solutions to the fluid-structure interaction problem with a free interface (with I. Kukavica and A. Tuffaha), *Appl. Math. Optim.* **90** (2024), no. 3, Paper No. 53, 31 pp.
8. A regularity result for the free boundary compressible Euler equations of a liquid, *Non-linearity* **37** (2024), no. 3, Paper No. 035019, 48 pp.
9. On the local existence of solutions to the Navier-Stokes-wave system with a free interface (with I. Kukavica and A. Tuffaha), *J. Math. Fluid Mech.* **26** (2024), no. 2, Paper No. 25, 37 pp.
10. Maximal regularity for the Neumann-Stokes problem in $H^{r/2,r}$ spaces (with I. Kukavica and A. Tuffaha), *C. R. Math. Acad. Sci. Soc. R. Can.* **45** (2023), no. 3, 56–63.
11. The incompressible limit of the isentropic fluids in the analytic spaces (with Y. Tan), *Z. Angew. Math. Phys.* **74** (2023), no. 4, Paper No. 164, 15 pp.
12. Mach limits in analytic spaces on exterior domains (with J. Jang and I. Kukavica), *Discrete Contin. Dyn. Syst.* **42** (2022), no. 8, 3629–3659.
13. Mach limits in analytic spaces (with J. Jang and I. Kukavica), *J. Differential Equations* **299** (2021), 284–332.

CONFERENCE TALKS

Southern California Applied Math Symposium University of California, Riverside	Apr. 2025
UCSB Applied Math/PDE/Data science seminar University of California, Santa Barbara	Mar. 2025
UCLA Analysis and PDE seminar University of California, Los Angeles	Feb. 2025
UC Riverside PDE and Applied Mathematics seminar University of California, Riverside	Feb. 2025
AMS Spring Western Sectional Meeting San Francisco State University, San Francisco	May 2024
AMS Spring Eastern Sectional Meeting Howard University, Washington DC	Apr. 2024
Analysis and PDE seminar University of California, Los Angeles	Oct. 2023
AMS Spring Western Sectional Meeting California State University, Fresno	May 2023
Analysis Seminar University of California, San Diego	Jan. 2023
Analysis and PDE Seminar BICMR, Peking University	Dec. 2022
Webinar on Analysis and PDE Online	Mar. 2022
Shanks workshop on Mathematical Aspects of Fluid Dynamics Vanderbilt University	Feb. 2022
AMS special session “nonlinear PDEs and fluid dynamics” Online	May 2021

PROFESSIONAL SERVICE

Department teaching committee, UCLA	Sept. 2025 - present
Co-organizer of UCLA Analysis and PDE seminar	Sept. 2024 - present
Reviewer of AMS Mathematical Reviews	Dec. 2023 - present
Co-organizer of AMS spring western special session, CSU Fresno	May 2023
Journal Referee Activities: Asymptotic Analysis, Communications on Pure and Applied Analysis, Journal of Physics A: Mathematical and Theoretical.	

TEACHING AS INSTRUCTOR AT UCLA

Calculus III	Spring 2025
Real Analysis (two sections)	Winter 2025
Calculus III	Fall 2024
Linear Algebra II	Spring 2024
Calculus II	Winter 2024
Real Analysis	Winter 2024
Calculus II	Fall 2023

TEACHING ASSISTANT EXPERIENCE AT USC

Mathematics of Physics and Engineering II	Spring 2023
Linear Algebra and Differential Equations	Spring 2022
Linear Algebra and Differential Equations	Summer 2021
Real Analysis	Fall 2020
Real Analysis (graduate)	Summer 2020
Calculus III	Spring 2020
Calculus III	Spring 2019
Real Analysis	Fall 2018
Ordinary Differential Equations	Spring 2018
Calculus I	Fall 2017