

CV
STAN PALASEK

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Education.

- PhD in Mathematics, UCLA, 2023
 - Thesis: Some quantitative regularity theorems for the Navier-Stokes equations
 - Advisor: Terence Tao
- MA in Mathematics, UCLA, 2019
- AB in Mathematics, Princeton University, 2017
 - Thesis: A parilinearization of the 2d and 3d gravity water wave system in infinite depth

Postdoctoral appointments.

- Institute for Advanced Study, Postdoctoral member, 2023-24 and 2025-26
- Princeton University, Postdoctoral Research Associate and Lecturer, 2024-25

Mathematics publications and preprints.

- (with M. Coiculescu) Non-uniqueness of smooth solutions of the Navier-Stokes equations from critical data, arXiv:2503.14699
- Non-uniqueness in the Leray-Hopf class for a dyadic Navier-Stokes model, arXiv:2407.06179
- (with A. Bulut and M. K. Huynh) Non-uniqueness up to the Onsager threshold for the forced SQG equation, arXiv:2310.12947
- (with A. Bulut and M. K. Huynh) Convex integration for the forced Euler equations above the Onsager exponent, arXiv:2301.00804
- (with W. Ożański) Quantitative control of solutions to the axisymmetric Navier-Stokes equations in terms of the weak L^3 norm, arXiv:2210.10030, to appear in *Ann. PDE*
- (with A. Bulut and M. K. Huynh) Epochs of regularity for wild Hölder-continuous solutions of the hypodissipative Navier-Stokes system, arXiv:2201.05600
- A minimum critical blowup rate for the high-dimensional Navier-Stokes equations, 2021, *J. Math. Fluid Mech.* 24(108)
- Improved quantitative regularity for the Navier-Stokes equations in a scale of critical spaces, 2021, *Arch. Rational Mech. Anal.* 242(3) pp. 1479-1531

Talks.

- University of Maryland PDE-Applied Math Seminar, May 2025
- University of Victoria Applied Math Seminar, Mar 2025
- NSF-FRG Conference on Fluids and Computer Assisted Proofs, Princeton, Mar 2025
- Duke University Applied Math and Analysis Seminar, Feb 2025
- University of Minnesota PDE Seminar, October 2025
- UCLA Analysis & PDE Seminar, May 2024
- Caltech Analysis Seminar, May 2024
- Brown PDE Seminar, Mar 2024
- IAS Analysis and Mathematical Physics Seminar, Feb 2024

Date: Updated Jan 2024.

- Rutgers Hyperbolic & Dispersive PDE Seminar, Jan 2024
- Dynamics of fluids, AMS Southern Sectional Meeting, Oct 2023
- IAS new member short talk, Sept 2023
- Princeton Analysis Seminar, Sept 2023
- Princeton Analysis of Fluids and Related Topics seminar, Sept 2023
- Recent Advances in Mathematical Fluid Dynamics, Duke (short talk), May 2023
- Nonlinear PDEs in fluids dynamics, AMS Western Sectional Meeting, May 2023
- USC CAMS Colloquium, Feb 2023
- Georgia Tech PDE seminar, Jan 2023
- CIRM Nonlinear PDEs in Fluid Dynamics (short talk), May 2022
- LSU Applied Analysis Seminar, March 2022
- Early Career Math Colloquium, University of Arizona, Feb 2022
- Caltech-UCLA-USC Joint Analysis and PDE Seminar, Feb 2022

Organizational activities.

- Co-organizer, special session on “PDEs in Incompressible Fluid Mechanics” at AMS Spring Southeastern Sectional Meeting, FSU, March 2024
- Co-organizer, Princeton Analysis of Fluids and Related Topics seminar, 2023-

Teaching as instructor.

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|-------------|----------------------|--------------------------|
| Spring 2025 | Math 103 (Princeton) | Calculus I |
| Fall 2024 | Math 203 (Princeton) | Advanced Vector Calculus |
| Winter 2022 | Math 204 (UCLA) | Master’s Analysis |

Teaching as TA (UCLA).

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| Calculus for life sciences | Math 3A | x2 |
| Differential equations for life sciences | Math 3C | |
| Differential and integral calculus | Math 31A | |
| Integration and infinite series | Math 31B | |
| Honors real analysis | Math 131AH | |
| Analysis II | Math 131B | x2 |
| Topics in analysis | Math 131C | |
| Complex analysis for applications | Math 132 | x3 |
| Linear and nonlinear systems of differential equations | Math 134 | x5 |
| Ordinary differential equations | Math 135 | x3 |
| Partial differential equations | Math 136 | |
| Mathematical modeling | Math 142 | |
| Probability theory II | Math 170B | |
| Foundations of actuarial mathematics III | Math 178C | |

Awards.

- Pacific Journal of Mathematics Dissertation Prize, 2023
- Dissertation Year Fellowship, UCLA, 2022-23
- Graduate Dean’s Scholar Award, UCLA, 2017-19
- Magna cum laude in Mathematics, Princeton University, 2017

Other publications.

- Epigenetic memory via concordant DNA methylation is inversely correlated to developmental potential of mammalian cells, 2017, PLOS Genetics 13(11): e1007060, joint with Minseung Choi, Diane Genereux, et al.
- Information flow in cellular automata, 2013, Complex Systems 22(2) pp. 193-202.