

PAVLOS ZOUBOULOGLOU

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EDUCATION

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| Doctoral student, UNC Chapel Hill, Statistics and Operations Research | August 2019 - May 2024 |
| Advisor: Amarjit Budhiraja | |
| B.Sc. in Mathematics, University of Athens (NKUA), GPA: 8.51/10 | September 2014 - June 2019 |
| Study Abroad in Mathematics, TU Berlin GPA: 1.43/1.00 | April 2018 -August 2018 |
| Study Abroad in Computational Mathematics, ERAU GPA: 4.00/4.00 | August 2017 - December 2017 |
| Minor in Political Science, Deree GPA: 3.78/4.00 | September 2015 - December 2017 |

PROFESSIONAL EXPERIENCE

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| Postdoctoral fellow (Cluster of Excellence), University of Münster Institute for Mathematical Stochastics, Department of Applied Mathematics Mentor: Chiranjib Mukherjee | August 2024 - Present |
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PUBLICATIONS AND PREPRINTS

1. Marie-Christine Düker, **Pavlos Zoubouloglou**. *The Fourth Moment Theorem on Hilbert Spaces*. Preprint (2025). [[arXiv](#)]
2. Marie-Christine Düker, **Pavlos Zoubouloglou**. *Scaling limits for sample autocovariance operators of Hilbert space-valued linear processes*. Preprint (2025). [[arXiv](#)]
3. Marie-Christine Düker, **Pavlos Zoubouloglou**. *Breuer–Major Theorems for Hilbert Space-Valued Random Variables*. Preprint (2024). [[arXiv](#)]
4. Amarjit Budhiraja, Adam Waterbury, **Pavlos Zoubouloglou**. *Large Deviations for Empirical Measures of Self-Interacting Markov Chains*. *Stochastic Processes and their Applications* **186** (2025), 104460. [[arXiv](#)] [[Journal](#)]
5. Stefanos Kechagias, Vladas Pipiras, **Pavlos Zoubouloglou**. *Cyclical Long Memory: Decoupling, Modulation, and Modeling*. *Stochastic Processes and their Applications* **175** (2024), 104403. [[arXiv](#)] [[Journal](#)]
6. Amarjit Budhiraja, **Pavlos Zoubouloglou**. *Large Deviations for Small Noise Diffusions Over Long Time*. *Transactions of the American Mathematical Society, Series B* **11** (2024), 1–63. [[arXiv](#)] [[Journal](#)]
7. ***Pavlos Zoubouloglou**, Eduardo García Portugués, J. S. Marron. *Scaled Torus Principal Component Analysis*. *Journal of Computational and Graphical Statistics* **32**(3) (2023), 1024–1035. [[arXiv](#)] [[Journal](#)]
8. *Vladas Pipiras, **Pavlos Zoubouloglou**, Themistoklis Sapsis. *Cyclical Long Memory in Ship Motions at Non-Zero Speed*. Proceedings of the 18th International Ship Stability Workshop (2022), 297–306. [[Preprint](#)] [[Journal](#)]

* indicates papers where author order reflects contribution; absence of * indicates alphabetical author order.

AWARDS AND SCHOLARSHIPS

1. **Young Mathematicians Conference Network Fund**, Department of Mathematics Münster
(in support of organizing the event “Summer School in Interacting Random Systems”) 20000 (in €)
2. **Internationalization Fund**, University of Münster
(in support of organizing the event “Summer School in Interacting Random Systems”) 3200 (in €)
3. **Student Success Ambassador Award**, Graduate School (UNC)
4. **M. R. Leadbetter Graduate Student Excellence Award**, Dept. of Statistics and OR
5. **2023-24 Dissertation Completion Fellowship**, Graduate School, UNC 22000 (in \$)
6. **2022 Summer Research Fellowship**, Graduate School, UNC 5000 (in \$)

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| 7. Erasmus Study Abroad Scholarship, Erasmus+ through NKUA, 2018 | 2250 (in €) |
| 8. Full Study Abroad Scholarship, Stavros Niarchos Foundation and Deree, 2017 | 7950 (in €) |
| 9. Scholarship for Minor Certificate, Stavros Niarchos Foundation, 2015 | 1400 (in €) |

TEACHING EXPERIENCE

University of Münster

- Stochastic Analysis (2 times): Winter Semester 2025–26, Winter Semester 2024–25. Role: Teaching assistant, tutorial instructor, grader.
- Probability Theory I (1 time): Summer Semester 2025. Role: Tutorial instructor, grader.

University of North Carolina at Chapel Hill

- Introduction to Data Science (6 times): Fall 2021, Spring 2021, Fall 2020, Summer 2020, Spring 2020, Fall 2019. Role: Teaching assistant, lab instructor, grader.
- Comprehensive Written Exams Tutorials for Probability Theory and Statistical Theory (2 times): Summer 2023 and Summer 2021. Role: Instructor.
- Introduction to Data Models and Inference (2 times): Summer 2023, Summer 2021. Role: Teaching assistant, grader.
- Methods in Data Analysis (1 time): Summer 2020. Role: Teaching assistant.

OTHER SKILLS

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| Technical Languages | LaTeX, R, MATLAB Greek (Native), English (C2), German (A2-B1), Spanish (A2) |
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PROFESSIONAL ACTIVITIES

- Early Career Committee of the Cluster of Excellence, University of Münster May 2025 - Present
- Main organizer of a week-long event in Münster:
“Summer School in Interacting Random Systems” June 2025
- STEM Pride of the Triangle Board Member, UNC August 2023 - May 2024
- STOR-Biostatistics student liaison, UNC June 2023 - May 2024
- Graduate Student Seminar Co-Organizer, UNC August 2021 - May 2024
- Graduate and Professional Student Federation Senator, UNC September 2021 - August 2022

REFEREEING

Bernoulli; Stochastic Analysis and Applications; Involve; Potential Analysis; Journal of the Royal Statistical Society: Series C (Applied Statistics); Proceedings of the Edinburgh Mathematical Society; ESAIM: Probability and Statistics.

INVITED TALKS

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| 15th AIMS Conference NUA | Athens (GR), July 2026 (planned) |
| Recent Advances in Time Series | Larnaca (CY), June 2026 (planned) |
| 19th Panhellenic Conference in Analysis NTUA | Athens (GR), December 2025 |
| University of Münster, Stochastic Oberseminar | Münster (DE), November 2025 |
| Friedrich-Alexander University | Erlangen (DE), June 2024 |

Università di Pisa

Pisa (IT), June 2023

One World Dynamics Seminar

Zoom, March 2023

UNC STOR Graduate Student Seminar

Chapel Hill (NC), October 2021 and September 2022

TRAININGS AND CONFERENCES WITH CONTRIBUTED TALKS AND POSTERS

53rd Probability Summer School Université Clermont Auvergne

Saint-Flour (FR), July 2025

World Congress in Probability and Statistics Bernoulli-IMS

Bochum (DE), August 2024

Summer School: PDEs and Randomness University of Maryland

College Park (MD), August 2024

Seminar on Stochastic Processes Rice University

Houston (TX), March 2024

Stochastic Analysis, Random Fields, and Applications, Michigan State University

East Lansing (MI), August 2023

Frontiers in Stochastic Analysis University of Illinois Chicago

Chicago (IL), August 2023

51st Probability Summer School Université Clermont Auvergne

Saint-Flour (FR), July 2023

Seminar on Stochastic Processes University of Arizona

Tucson (AZ), March 2023

Graduate Students Conference in Probability UW-Madison

Madison (WI), September 2022

Brazilian School of Probability

Campinas (BR), August 2022

TRAININGS AND CONFERENCES WITHOUT CONTRIBUTION

20 Years of the Fourth Moment Theorem University of Luxembourg

Luxembourg (LU), December 2025

Stochastic Analysis in Mathematics and Natural Sciences FORTH Institute

Crete (GR), June 2025

Spring School in Extrema of Logarithmically Correlated Random Fields

Darmstadt Universität

Darmstadt (DE), March 2025

Northeast Probability Conference New York University

New York City (NY), November 2023

Southeastern Probability Conference I Duke University

Durham (NC), May 2023

Summer School in Lévy Processes NTUA

Athens (GR), July 2019