

ANDA SKEJA

◇ anda.skeja@math.uu.se ◇ Department of Mathematics, Uppsala University

Research Interests

High-dimensional probability and statistics, combinatorics, information theory, theoretical computer science.

Academic and Research Positions

Department of Mathematics, Uppsala University	Postdoctoral Researcher	November 2024 – present
↔ Probability Theory and Combinatorics		
EPFL, Lausanne, Switzerland	Teaching and Research Assistant	February 2020 – August 2024
Scientific and Technological Research Council of Turkey	Cryptology Intern	August – September 2018
Istanbul Technical University	Student Assistant, Probability Theory	February – June 2017

Education

EPFL, Lausanne, Switzerland	2020 – 2024
Ph.D. Mathematics	
Thesis: <i>An Information-Theoretic Framework for Multiplex Graphs</i>	
Istanbul Technical University, Turkey	2016 – 2020
B.Sc. Economics (Double Major), <i>Summa cum laude</i>	
Istanbul Technical University, Turkey	2015 – 2019
B.Sc. Mathematics, <i>Summa cum laude</i>	

Publications and Preprints

6. Skeja, A., Espinoza, D. G., Skerman, F., & Wein, A. S. *Sharp low-degree thresholds for planted-vs-planted testing*. *arXiv:2606.05266*, 2026.
5. ^α García-Redondo, I., Landi, C., Percival, S., Skeja, A., Wang, B., & Zhou, L. *Effective resistance in simplicial complexes as bilinear forms: generalizations and properties*. *arXiv:2511.10749*, 2025.
4. ^α Landi, C., Percival, S., García-Redondo, I., Skeja, A., Wang, B., & Zhou, L. *Finding the cores of higher graphs using geometric and topological means: A Survey*. Accepted to *Research in Computational Topology 3*, Association for Women in Mathematics–Springer series, 2025.
3. Skeja, A., & Olhede, S. C. *Multivariate graph dependencies: theory and estimation for multiplex graphs*. *arXiv:2405.14482*, 2024.
2. Skeja, A., & Olhede, S. C. (2023). *Entropy of exchangeable random graphs*. arXiv preprint arXiv:2302.01856.
1. Skeja, A., & Olhede, S. C. *Measuring the complexity of an exchangeable graph*. In *2023 IEEE International Symposium on Information Theory (ISIT)*, 2762–2767, IEEE, 2023.

^α Author lists marked by ^α are in alphabetical order.

Grants and Scholarships

Bernoulli Center for Fundamental Studies Grant (103,340 CHF)	2026
Funding for the six-week research program <i>Learning over Structured Objects: Theory and Complexity</i> .	
Esseen, L and C-G Fund for Mathematical Studies (16,600 SEK)	2025
Royal Swedish Academy research travel grant.	
G. M. Magnusons Fund (17,000 SEK)	2025
Royal Swedish Academy research travel grant.	
Collaborate@ICERM	2025
Funding for workshop participation and accommodation.	
Liljewalch Research Scholarship (19,000 SEK)	2025
Conference and research visit funding.	
Swiss Government Excellence Scholarship	2020 – 2024
Ph.D. scholarship awarded by the Swiss Government.	
Bernoulli Center for Fundamental Studies Grant (23,000 CHF)	2022
Funding for the Discrete Random Structures Workshop.	

Invited Research Visits

Rényi Institute, Budapest
Research visit hosted by Ágnes Backhausz.

September 2026

Honors and Awards

Department Valedictorian, Mathematics **June 2019**
Ranked first in the Department of Mathematics, Istanbul Technical University.

Faculty Valedictorian, Science and Letters **June 2019**
Ranked first in the Faculty of Science and Letters, Istanbul Technical University.

Department Salutatorian, Economics **January 2020**
Ranked second in the Department of Economics, Istanbul Technical University.

High Honor List **September 2015 – January 2020**
Dean's List, Istanbul Technical University.

Research Talks

Invited Talks

- Graphs, Groups and Probability Seminar, Rényi Institute, Budapest, Hungary. September 2026.
- Applied Combinatorics, Algebra, Topology and Statistics Seminar, KTH, January 2026.
- Probability and Combinatorics Seminar, Uppsala University, November 2025.
- Probability and Combinatorics Seminar, Uppsala University, November 2024.

Selected Conference Presentations

- International Congress of Mathematicians. July 2026.
- Entropy and Random Matrices at CIRM, Marseille, France, March 2026.
- Midwinter Meeting in Discrete Probability, Umeå University, January 2026.
- 22nd Random Structures and Algorithms Conference, August 2025.
- BS-IMS 11th World Congress in Probability and Statistics, August 2024.
- NetSci 2023, July 2023.
- IEEE International Symposium on Information Theory, June 2023.
- Swiss Doctoral Day, March 2023.
- Swiss Statistics Seminar, March 2023.
- 31st Journées Arithmétiques, July 2019.

Teaching and Supervision

Lecturer

- Probabilistic Combinatorics, PhD course, co-lecturer with Fiona Skerman. Fall 2026/27

Teaching Assistant

- Metric and Topological Spaces, BSc Course, EPFL.
- Statistical Analysis of Network Data, MSc Course, EPFL.
- Time Series, BSc Course, EPFL.
- Statistics for Data Science, MSc Course, EPFL.
- Probability Theory, BSc Course, Istanbul Technical University.

Student Supervision

- M.Sc. project: *Stochastic Processes on Graphs*, Nikola Sekulov, EPFL.

- B.Sc. thesis: *Random Graphs and Inference Methods*, Thomas Molinier, EPFL.
- B.Sc. thesis: *Centrality Measures of Random Graph Models*, Eric Maeder, EPFL.

Research Organization and Academic Service

Bernoulli Center for Fundamental Studies, EPFL *Research Program Co-organizer* **15 March – 23 April 2027**

- Co-organizer of the six-week research program *Learning over Structured Objects: Theory and Complexity*.

Bernoulli Center for Fundamental Studies, EPFL *Workshop Co-organizer* **31 July – 3 August 2023**

- Co-organizer of the *Discrete Random Structures Workshop*. Selected through a competitive call for junior scientists. The workshop brought together 18 leading researchers and more than 50 participants.

Uppsala University *Seminar Organizer*

2025 – present

↪ Probability Theory and Combinatorics Seminar

Reviewing

IEEE Transactions on Information Theory; Journal of Applied Probability.

Selected Conferences and Workshops

- **Large Objects Under Combinatorial Constraints and Outside Uniform Model**, CIRM, Marseille, France, June 2026.
- **Towards a Theory for Typical-Case Algorithmic Hardness**, Les Houches Physics School, France, January–February 2025.
- **Women in Computational Topology**, Bernoulli Center, EPFL, July 2023.
- **Global Young Scientists Summit**, Singapore, January 2023. Selected as one of five EPFL students for online participation.
- **Sublinear Algorithms**, Bernoulli Center, EPFL, December 2022.
- **Bocconi Summer School in Advanced Statistics and Probability: Random Structures and Combinatorial Statistics**, Como, Italy, July 2022.
- **Workshop on Learning: Optimization and Stochastics**, Bernoulli Center, EPFL, July 2022.
- **p -adic Modular Forms**, Boğaziçi University, Istanbul, Turkey, July 2019.