

Curriculum Vitae

Jonas Köppl

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University Education.

01/2025 - 06/2025	Visiting graduate student, UCLA (Mentors: Marek Biskup, Georg Menz).
since 09/2022	PhD Student in Mathematics, TU Berlin (Advisor: Benedikt Jahnel).
10/2019 - 03/2022	M.Sc. Mathematics, TU Berlin (Final grade: 1,0; excellent).
10/2016 - 08/2019	B.Sc. Mathematics, University of Passau (Final grade: 1,0; excellent).

Research Interests.

Probability and Statistical Mechanics with a focus on the long-term behaviour of large-scale systems of interacting particles and phase transitions in random graphs and complex networks.

Awards and Scholarships.

09/2025	Oberwolfach Leibniz Graduate Student (travel grant).
01/2025 – 06/2025	Research scholarship, DAAD (German Academic Exchange Service).
09/2023	Participant, 10th Heidelberg Laureate Forum 2023.
11/2022	Best talk award, Dies Mathematicus 2022, TU Berlin.
08/2022	Best talk award, DMV Student Conference 2022, MPI MiS Leipzig.
10/2018 – 03/2022	Scholarship holder, Studienstiftung des deutschen Volkes.
01/2020	Faculty prize, Faculty for Computer Science and Mathematics, University of Passau.

Talks.

Large Scale Stochastic Dynamics, MFO Oberwolfach, September 2025, Oberwolfach.
Stochastic Processes and Applications, July 2025, Wrocław.
Caltech, LA Probability Forum, March 2025, Los Angeles.
UCLA, Probability Seminar, February 2025, Los Angeles.
EURANDOM, Interacting particles in the continuum, September 2024, Eindhoven.
4th Italian Meeting on Probability and Mathematical Statistics, June 2024, Rome.
Universität Paderborn, Probability seminar, May 2024, Paderborn.
Postgraduate Online Probability Seminar (POPS), February 2024, online.
UCLA, Probability seminar, February 2024, online.
Mathematics of random systems summer school, September 2023, Kyoto.
German Probability and Statistic Days 2023, March 2023, Essen.
BMS Student Conference 2023, February 2023, Berlin.
Universität Passau, *Analysis and Probability* Seminar, Januar 2023, Passau.
TU Berlin, Dies Mathematicus, November 2022, Berlin.
WIAS *Interacting Random Systems* Seminar, November 2022, Berlin.
DMV Annual Meeting, September 2022, Berlin.
BMS–BGSMATH Junior Meeting, September 2022, Barcelona.
DMV Student Conference, August 2022, Leipzig.

Extracurricular activities.

since 05/2024	Co-Organiser of the Postgraduate Online Probability Seminar (POPS).
since 06/2022	Co-Founder of <i>Berlin Learning and Intelligent Systems Society</i> (BLISS).

Hobbies.

Roadcycling, Theater, Swimming, Climbing, Hiking.

Publication List

Preprints.

with Benedikt Jahnel, Yannic Steenbeck and Alexander Zass: *Reversible birth-and-death dynamics in continuum: free energy dissipation and attractor properties*, arXiv:2508.21196 (2025).

with Edward Athaide, Maciej Głuchowski and Georg Menz: *Random currents for signed interactions in the one-dimensional heterogeneous Ising model*, arXiv:2505.06209 (2025).

with David Coupier, Benoit Henry and Benedikt Jahnel: *The planar lattice two-neighbour graph percolates*, arXiv:2412.20781 (2024).

with Nicolas Lanchier and Max Mercer: *Evolutionary games on the lattice: multitype contact process with density-dependent birth rates*, arXiv:2412.19957 (2024).

with Benedikt Jahnel, Yannic Steenbeck and Alexander Zass: *The variational principle for a marked Gibbs point process with infinite-range multibody interactions*, arXiv:2408.17170 (2024).

Accepted.

with Benedikt Jahnel: *Time-periodic behaviour in one- and two-dimensional interacting particle systems*, arXiv:2402.12300 (2024). Accepted for publication in: Annales Henri Poincaré.

Published.

with Benedikt Jahnel, Bas Lodewijks, and András Tóbiás: *Percolation in lattice k -neighbor graphs*, Journal of Applied Probability, 62 (4), 2025.

with Nicolas Lanchier and Max Mercer: *Survival and extinction for a contact process with a density-dependent birth rate*, Electronic Journal of Probability, Vol. 30, paper no. 74, 1-18 (2025).

with Benedikt Jahnel: *On the long-time behaviour of reversible interacting particle systems in one and two dimensions*, Probability and Mathematical Physics 6-2, 479–503 (2025).

with Benedikt Jahnel: *Dynamical Gibbs variational principles for irreversible interacting particle systems with applications to attractor properties*, Annals of Applied Probability, Vol. 33, No. 6A, 4570–4607 (2023).

with Benedikt Jahnel: *Trajectoryal dissipation of Φ -entropies for interacting particle systems*, Journal of Statistical Physics 190, 119 (2023).

with Natasa Djurdjevac-Conrad and Ana Djurdjevac: *Feedback loops in opinion dynamics of agent-based models with multiplicative noise*, Entropy (2022); 24(10):1352.