

Publications of Volker Betz

Compiled March 2022

Books

- [1] József Lörinczi, Fumio Hiroshima, and Volker Betz. *Feynman-Kac-Type Formulae and Gibbs Measures: second edition*. De Gruyter, Jan. 2020. DOI: [10.1515/9783110330397](https://doi.org/10.1515/9783110330397).
- [2] József Lörinczi, Fumio Hiroshima, and Volker Betz. *Feynman-Kac-Type Theorems and Gibbs Measures on Path Space*. De Gruyter, Aug. 2011. DOI: [10.1515/9783110203738](https://doi.org/10.1515/9783110203738).

Preprints

- [3] Volker Betz and Steffen Polzer. *Effective mass of the Polaron: a lower bound*. 2022. eprint: [arXiv:2201.06445](https://arxiv.org/abs/2201.06445).
- [4] Volker Betz and Steffen Polzer. *A functional central limit theorem for Polaron path measures*. 2021. eprint: [arXiv:2106.06447](https://arxiv.org/abs/2106.06447).

Papers in Peer Reviewed Journals

- [5] F. Aurzada, V. Betz, and M. Lifshits. “Breaking a Chain of Interacting Brownian Particles: A Gumbel Limit Theorem”. In: *Theory of Probability & Its Applications* 66.2 (Jan. 2021), pp. 184–208. DOI: [10.1137/s0040585x97t990344](https://doi.org/10.1137/s0040585x97t990344).
- [6] Frank Aurzada, Volker Betz, and Mikhail Lifshits. “Breaking a chain of interacting Brownian particles”. In: *The Annals of Applied Probability* 31.6 (Dec. 2021). DOI: [10.1214/20-aap1658](https://doi.org/10.1214/20-aap1658).
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- [8] Volker Betz, Johannes Ehlert, Benjamin Lees, and Lukas Roth. “Sharp phase transition for random loop models on trees”. In: *Electronic Journal of Probability* 26.none (Jan. 2021). DOI: [10.1214/21-ejp677](https://doi.org/10.1214/21-ejp677).
- [9] Volker Betz, Julian Mühlbauer, Helge Schäfer, and Dirk Zeindler. “Precise asymptotics of longest cycles in random permutations without macroscopic cycles”. In: *Bernoulli* 27.3 (May 2021). DOI: [10.3150/20-bej1282](https://doi.org/10.3150/20-bej1282).
- [10] Volker Betz, Helge Schäfer, and Lorenzo Taggi. “Interacting self-avoiding polygons”. In: *Annales de l’Institut Henri Poincaré, Probabilités et Statistiques* 56.2 (May 2020). DOI: [10.1214/19-aihp1003](https://doi.org/10.1214/19-aihp1003).
- [11] Volker Betz, Helge Schäfer, and Dirk Zeindler. “Random permutations without macroscopic cycles”. In: *The Annals of Applied Probability* 30.3 (June 2020). DOI: [10.1214/19-aap1538](https://doi.org/10.1214/19-aap1538).

- [12] V. Betz, B. D. Goddard, and Tim Hurst. “Nonadiabatic Transitions in Multiple Dimensions”. In: *SIAM Journal on Scientific Computing* 41.5 (Jan. 2019), B1011–B1033. DOI: [10.1137/18m1188756](https://doi.org/10.1137/18m1188756).
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- [39] Volker Betz, József Lörinczi, and Herbert Spohn. “Gibbs Measures on Brownian Paths: Theory and Applications”. In: *Interacting Stochastic Systems*. Springer-Verlag, pp. 75–102. DOI: [10.1007/3-540-27110-4_5](https://doi.org/10.1007/3-540-27110-4_5).
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Other Publications

- [45] Volker Betz. “Gibbs measures relative to Brownian motion and Nelson’s model”. Dissertation. München: Technische Universität München, 2002.