

Rebecca Steiner

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Education

Johannes Gutenberg University

B.Sc. Computer Science (Informatik), 1.3

Mainz

2016–2020

Thesis: On the Optimality of Greedy for SSD Garbage Collection (Grade: 1.0)

Supervised by Prof. Dr. André Brinkmann, Prof. Dr. Ernst Althaus

Outstanding Thesis Award

Johannes Gutenberg University

M.Sc. Computer Science, Minor in Mathematics (Naturwissenschaftliche Informatik), 1.0

Mainz

2020–2022

Thesis: Broadcasting on Random Recursive Trees (Grade: 1.0)

Supervised by Prof. Dr. Lisa Hartung, Prof. Dr. Ernst Althaus

Outstanding Thesis Award

Johannes Gutenberg University

Ph.D. Computer Science / Mathematics

Mainz

2022–

Joint supervision by Prof. Dr. Lisa Hartung, Prof. Dr. Ernst Althaus

Experience

Prof. Dr. André Brinkmann, Johannes Gutenberg University

Student Research Assistant

Mainz

2017–2019

- Development of filesystem architectures for highly scalable systems
- Stochastic modelling of the garbage collection process on SSDs

Johannes Gutenberg University

(Student) Teaching Assistant

Mainz

- Computer Architecture and Organization (WT 2018)
- Complexity Theory (WT 2020)
- Formal Languages and Computability (ST 2021)
- Data Structures and Efficient Algorithms (WT 2021)
- Principles of Probability Theory and Statistics (WTs 2022, 2023 and 2024)

Co-Organizer

- Formal Languages and Computability (ST 2023)
- Formal Aspects of Cryptographic Concepts (ST 2024)
- Lab Course Probability and Statistics (WT 2024)

Member and Student Speaker IRTG of TRR 146

2023–

Languages

German: Native

English: Fluent

Publications

- [1] E. Althaus, P. Berenbrink, A. Brinkmann, and R. Steiner. “On the Optimality of the Greedy Garbage Collection Strategy for SSDs”. In: *2022 IEEE 42nd International Conference on Distributed Computing Systems (ICDCS)*. IEEE. 2022, pp. 78–88.
- [2] E. Althaus, L. Hartung, and R. Steiner. *A Random Walk Approach to Broadcasting on Random Recursive Trees*. 2024. arXiv: 2405.04385 [math.PR].
- [3] M.-A. Vef, R. Steiner, R. Salkhordeh, J. Steinkamp, F. Vennetier, J.-F. Smigielski, and A. Brinkmann. “DelveFS - An Event-Driven Semantic File System for Object Stores”. In: *2020 IEEE International Conference on Cluster Computing (CLUSTER)*. 2020, pp. 35–46.