

Meike Neuwohner

Curriculum Vitae

Education

- August 2020 – **PhD studies in Mathematics**, *University of Bonn*, Bonn, Germany.
December 2023 enrolled at the Bonn International Graduate School of Mathematics;
final grade: summa cum laude (0.00)
- October 2018 **M. Sc. Mathematics**, *University of Bonn*, Bonn, Germany.
– July 2020 final grade: 1.0
- October 2015 **B. Sc. Mathematics**, *University of Bonn*, Bonn, Germany.
– August 2018 final grade: 1.0

Work Experience

- February 2024 **Research Officer in Mathematical Optimisation**, *Department of Mathematics, London School of Economics and Political Science*, London, United Kingdom.
– Present
- August 2020 – **Research Assistant**, *Research Institute for Discrete Mathematics, University of Bonn*, Bonn, Germany.
January 2024
- November 2018 – **Student Research Assistant**, *Research Institute for Discrete Mathematics, University of Bonn*, Bonn, Germany.
July 2020 Developed and implemented algorithms for chip design in the context of the Bonn Tools project
- August 2016 – **Student Assistant**, *Research Institute for Discrete Mathematics, University of Bonn*, Bonn, Germany.
October 2018 Developed and implemented algorithms for chip design in the context of the Bonn Tools project
- September 2015 **Internship**, *Max-Planck Institute for Mathematics*, Bonn, Germany.
internship in the context of a German mathematics competition

Awards, Prizes and Scholarships

- 2024 PhD thesis nominated for the Richard Rado Prize
- 2018 Bachelor prize 2017/18 of the Bonn Mathematical Society
- 2015–2020 scholarship by the Studienstiftung des Deutschen Volkes during my bachelor and master studies
- 2014/15 two-time winner of a national mathematics competition in Germany
- 2011–2015 three third prizes and two second prizes on the national level of the German mathematics olympiad

Conference Participations and Talks

- 10.12.2024 talked titled “A better-than- $k/2$ -approximation for weighted k -Set Packing” at the TALGO group in Paris
- 21.11.2024 talk titled “A characterization of unimodular hypergraphs with disjoint hyperedges” at the G-SCOP laboratory in Grenoble
- 2024 Symposium Discrete Mathematics in Berlin, talk titled “Improved Approximation Algorithms for Weighted k -Set Packing”
- 2024 13th Cargese Workshop on Combinatorial Optimization, joined talk with Luise Puhmann about “Improved approximation guarantees for the a priori TSP”
- 2024 The 25th International Symposium on Mathematical Programming (ISMP 2024), talk titled “A better-than- $k/2$ -approximation for weighted k -Set Packing”
- 2024 The 25th Conference on Integer Programming and Combinatorial Optimization (IPCO 2024), talk titled “A $4/3$ -Approximation for the Maximum Leaf Spanning Arborescence problem in dags”
- 2024 10th VOCAL Optimization Conference: Advanced Algorithms; talk titled “Passing the Limits of Pure Local Search for Weighted k -Set Packing”
- 2024 26th Combinatorial Optimization Workshop in Aussois; talk titled “Passing the Limits of Pure Local Search for Weighted k -Set Packing”
- 2023 34th International Symposium on Algorithms and Computation (ISAAC 2023)
- 2023 12th Cargese-Porquerolles-Workshop on Combinatorial Optimization
- 2023 Highlights of Algorithms (HALG) 2023, contributed talk titled “Passing the Limits of Pure Local Search for Weighted k -Set Packing”
- 12 May 2023 Talk titled “Improved approximation guarantees for weighted k -Set Packing” in the Operations and Logistics seminar at UBC Sauder in Vancouver
- 2023 ACM-SIAM Symposium on Discrete Algorithms (SODA 2023), talk titled “Passing the Limits of Pure Local Search for Weighted k -Set Packing”
- 2023 25th Combinatorial Optimization Workshop in Aussois
- 13 December 2022 Talk titled “The Limits of Local Search for Weighted k -Set Packing” in the OMS Seminar in Aachen
- 2022 Talk titled “The Limits of Local Search for Weighted k -Set Packing” at the Bonn Workshop on Combinatorial Optimization 2022
- 2022 Future Research in Combinatorial Optimization (FRICO) 2022
- 2022 11th Cargese Workshop on Combinatorial Optimization
- 2022 The European Symposium on Algorithms (ESA 2022), talk titled “The Pareto Cover problem”
- 2022 The 23rd Conference on Integer Programming and Combinatorial Optimization (IPCO 2022), talk titled “The Limits of Local Search for Weighted k -Set Packing”
- 2021 Future Research in Combinatorial Optimization (FRICO) 2021, talk titled “An Improved Approximation Algorithm for Weighted k -Set Packing”

- 2021 Talk titled “An Improved Approximation Algorithm for the Maximum Weight Independent Set Problem in d -Claw Free Graphs” at the HCM Symposium 2021
- 2021 Highlights of Algorithms (HALG) 2021, contributed talk titled “An Improved Approximation Algorithm for the Maximum Weight Independent Set Problem in d -Claw Free Graphs”
- 2021 The 37th European Workshop on Computational Geometry (EuroCG 2021), contributed talk titled “Reducing Moser’s Square Packing Problem to a Bounded Number of Squares”
- 2021 The 2021 International Symposium on Physical Design (ISPD’21), talk titled “A Fast Optimum Double Row Legalization Algorithm”
- 2021 The 38th International Symposium on Theoretical Aspects of Computer Science (STACS 2021), talk titled “An Improved Approximation Algorithm for the Maximum Weight Independent Set Problem in d -Claw Free Graphs”

Outreach activities

- 14 February 2023 lecture at the “Schnupperuni” (an event for female high school students organized by the University of Bonn)
- September 2021 – co-organizer of the FRICO 2022 conference that took place at the Research Institute for Discrete Mathematics in Bonn in September 2022
- 28 April 2022 talk at the Girls’ Day of the Hausdorff Center for Mathematics in Bonn
- December 2021 – part of the organizing team of “Tea Time with Women in Mathematics”, a series of gender equality events at the University of Bonn
- January 2024