

Stefan Neumann

Curriculum Vitae

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PhD student in Theoretical Computer Science at University of Vienna supervised by Monika Henzinger. My research interests are algorithms and lower bounds for dynamic graph problems. I also like data mining.

Research Interests

- Dynamic graph algorithms
- Sensitivity data structures
- Data Mining
- Cell-probe lower bounds
- Conditional lower bounds

Education

Since 2016 **PhD student in Computer Science**, University of Vienna, Austria.

Advisor: Prof. Dr. Dr. h.c. Monika Henzinger

Since 2016 **Member of the Vienna Graduate School of Computational Optimization.**

2014–2015 **PhD student in preparatory phase**, Saarbrücken Graduate School of Computer Science.

2013–2015 **Master of Science**, Max Planck Institute for Computer Science and Saarland University, Germany.

Computer Science with emphasis on algorithms and data mining

2010–2013 **Bachelor of Science**, Friedrich-Schiller-University Jena, Germany.

Mathematics with emphasis on stochastic processes and algorithms

Employment

Since 2016 **Research and Teaching Assistant**, University of Vienna.

2014–2015 **Research Assistant**, Max Planck Institute of Computer Science.

2011–2014 **Software Developer**, Evaluation Project of Friedrich-Schiller-University Jena.

Grants and Awards

2017 Awarded as the third most productive PhD student in the CS department in 2016

2016 Travel Grant ADFOCS Summer School

2015 MSc in Computer Science from Saarland University awarded *with distinction*

2014–2015 Scholarship from Saarbrücken Graduate School of Computer Science

Scientific Activities

- Talks *What You Will Gain By Rounding: Theory and Algorithms for Rounding Rank*, ICDM 2016
Incremental and Fully Dynamic Subgraph Connectivity For Emergency Planning, ESA 2016
- Summer Schools ADFOCS Summer School 2016 on Distributed Computing at Max Planck Institute
- Reviewer ICALP 2017, WADS 2017, ICALP 2016, ESA 2016
- Conferences SODA 2017, ICDM 2016, ESA 2016, HALG 2016, ECMLPKDD 2014

Teaching

- Summer 2017 *Mathematical Foundations of Computer Science 1*, tutor
- Winter 2016 *Mathematical Foundations of Computer Science 1*, tutor

Publications and Manuscripts

Accepted Papers

- [1] Monika Henzinger, Andrea Lincoln, Stefan Neumann, and Virginia Vassilevska Williams. Conditional hardness for sensitivity problems. In *ITCS*, 2017.
- [2] Stefan Neumann and Pauli Miettinen. Reductions for frequency-based data mining problems. In *ICDM*, 2017.
- [3] Monika Henzinger and Stefan Neumann. Incremental and fully dynamic subgraph connectivity for emergency planning. In *ESA*, 2016.
- [4] Stefan Neumann, Rainer Gemulla, and Pauli Miettinen. What will you gain by rounding: Theory and algorithms for rounding rank. In *ICDM*, 2016.
- [5] Stefan Neumann and Andreas Wiese. This House Proves That Debating is Harder Than Soccer. In *FUN*, 2016.