Lars Rohwedder

Phone: +41 21 693 5219
Email: lars.rohwedder@epfl.ch
Url: https://www.larsrohwedder.com

EPFL INJ 131
Station 14
CH-1015 Lausanne

Curriculum Vitae

Nationality	German
Date of birth	July 1, 1991
Research Interests	My goal is to devise algorithms that solve important problems efficiently. I am broadly interested in topics from combinatorial optimization including approximative algorithms, online algorithms, parameterized algorithms, and integer programming.

Academia	**Post-Doc** EPFL (Lausanne, Switzerland)	10/2019 - ongoing
	Ph.D. University of Kiel (Kiel, Germany)	02/2016 - 09/2019
	M.Sc. (Computer Science) University of Kiel (Kiel, Germany)	03/2013 - 02/2016
	B.Sc (Computer Science) University of Kiel (Kiel, Germany)	10/2010 - 02/2013
Industry	**Research Assistant** VMWare (Palo Alto, USA)	04/2015 - 06/2015
	Research Assistant Oracle Labs (Redwood Shores, USA)	02/2014 - 04/2014
	Research Assistant Oracle Labs (Redwood Shores, USA)	03/2013 - 09/2013

Awards and Honors

- ▶ I was admitted a scholarship by the Studienstiftung (German Academic Scholarship Foundation), a prestigious German organization that supports exceptionally talented students.
- ▶ I won the award for the best Ph.D. in the year 2019 by the "Förderverein der TF" of the University of Kiel.
- ▶ My Master's degree was among the three best (by grade) within the graduating class.
- ▶ My Bachelor's degree was the best (by grade).

Other Activities

I have been in the program committee of WAOA'20 and I am regularly peer-reviewing for various conferences and journals. I contributed a significant part to the successful DFG (German research foundation) project proposal "Entwicklung von Approximationsalgorithmen für Scheduling auf heterogenen Maschinen" by my Ph.D. advisor Klaus Jansen.

Publications

[1] Xinrui Jia, Lars Rohwedder, Kshiteej Sheth, Ola Svensson. *Towards Non-Uniform k-Center with Constant Types of Radii.* SOSA'22.

[2] Sebastian Berndt, Max A. Deppert, Klaus Jansen, Lars Rohwedder. *Load Balancing: The Long Road from Theory to Practice.* ALENEX'22.

[3] Etienne Bamas, Paritosh Garg, Lars Rohwedder. *The Submodular Santa Claus Problem in the Restricted Assignment Case.* ICALP'21.

[4] Adam Polak, Lars Rohwedder, Karol Wegrzycki. *Knapsack and Subset Sum with Small Items.* ICALP'21.

[5] Moritz Buchem, Lars Rohwedder, Tjark Vredeveld, Andreas Wiese. *Additive Approximation Schemes for Load Balancing Problems.* ICALP'21.

[6] Lars Rohwedder, Andreas Wiese. *A (2+eps)-approximation algorithm for preemptive weighted flow time on a single machine.* STOC'21.

[7] Jana Cslovjecsek, Friedrich Eisenbrand, Christoph Hunkenschröder, Lars Rohwedder, Robert Weismantel. *Block-Structured Integer and Linear Programming in Strongly Polynomial and Near Linear Time.* SODA'21.

[8] Etienne Bamas, Andreas Maggiori, Lars Rohwedder, Ola Svensson. *Learning Augmented Energy Minimization via Speed Scaling.* NeurIPS'20.

[9] Paritosh Garg, Sagar Kale, Lars Rohwedder, Ola Svensson. *Robust Algorithms under Adversarial Injections.* ICALP'20.

[10] Lars Rohwedder. *Algorithms for Integer Programming and Allocation.* Ph.D. thesis.

[11] Klaus Jansen, Alexandra Lassota, Lars Rohwedder. *Near-Linear Time Algorithm for n-fold ILPs via Color Coding.* ICALP'19 / SIAM J. Discrete Math'20.

[12] Klaus Jansen, Lars Rohwedder. *Local Search Breaks 1.75 for Graph Balancing.* ICALP'19.

[13] Marin Bougeret, Klaus Jansen, Michael Poss, Lars Rohwedder. *Approximation Results for Makespan Minimization with Budgeted Uncertainty.* WAOA'19 / Theory Comput. Syst.'21.

[14] Sebastian Berndt, Leah Epstein, Klaus Jansen, Asaf Levin, Marten Maack, Lars Rohwedder. *Online Bin Covering with Limited Migration.* ESA'19.

[15] Klaus Jansen, Lars Rohwedder. *On Integer Programming, Discrepancy, and Convolution.* ITCS'18.

[16] Klaus Jansen, Lars Rohwedder. *A Note on the Integrality Gap of the Configuration LP for Restricted Santa Claus.* Inf. Process. Lett.'20.

[17] Klaus Jansen, Lars Rohwedder. *Compact LP Relaxations for Allocation Problems.* SOSA'18.

[18] Klaus Jansen, Lars Rohwedder. *A Quasi-Polynomial Approximation for the Restricted Assignment Problem.* IPCO'17 / SIAM J. Comput.'20.

[19] Klaus Jansen, Lars Rohwedder. *Structured Instances of Restricted Assignment with Two Processing Times.* CALDAM'17.

[20] Klaus Jansen, Lars Rohwedder. *On the Configuration-LP of the Restricted Assignment Problem.* SODA'17.

Teaching Activities			
Approximation Algorithms	Teaching Assistant	Summer'19
Bachelor's thesis	Co-Advisor	Winter'18/19
Fast Approximation Algorithms for Scheduling via Discrepancy and FFT		
Introduction to Operations Research	Teaching Assistant	Winter'18/19
Efficient Algorithms	Teaching Assistant	Summer'18
Introduction to Operations Research	Teaching Assistant	Winter'17/18
Master's thesis	Co-Advisor	Summer'17
Experimental Comparison of Theoretical Algorithms for FVS		
Efficient Algorithms	Teaching Assistant	Summer'17
Bachelor's thesis	Co-Advisor	Winter'16/17
Local Search for the Restricted Assignment Problem		
Introduction to Operations Research	Teaching Assistant	Winter'16/17
Efficient Algorithms	Teaching Assistant	Summer'16
Theoretical Computer Science	Teaching Assistant	Winter'13/14
Software Engineering	Teaching Assistant	Winter'12/13
Algorithms and Data Structures	Teaching Assistant	Summer'12

References   Available upon request