Lars Rohwedder

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Research Interests

My research focuses mostly on algorithms in theoretical computer science. I am interested in combinatorial optimization, approximative and parameterized algorithms. Most of my work is connected to scheduling and (integer) linear programming.

Academia

Post-Doc	10/2019 - current
EPFL (Lausanne, Switzerland)	
Ph.D.	02/2016 - 09/2019
University of Kiel (Kiel, Germany)	
M.Sc. (Computer Science)	03/2013 - 02/2016
University of Kiel (Kiel, Germany)	
B.Sc (Computer Science)	10/2010 - 02/2013
University of Kiel (Kiel, Germany)	

Training

Research Assistant	04/2015 - 05/2015
VMWare (Palo Alto, USA)	
Research Assistant	02/2014 - 04/2014
Oracle Labs (Redwood Shores, USA)	
Research Assistant	03/2013 - 09/2013
Oracle Labs (Redwood Shores, USA)	

Awards and Honors

I was admitted a scholarship by the Studienstiftung (German Academic Scholarship Foundation), a prestigious German organization that supports exceptionally talented students. My Master's degree was among the three best (by grade) within the graduating class. My Bachelor's degree was the best.

Publications

Lars Rohwedder, Andreas Wiese. *A (2+eps)-approximation algorithm for preemptive weighted flow time on a single machine.* manuscript.

Etienne Bamas, Paritosh Garg, Lars Rohwedder. *The Submodular Santa Claus Problem in the Restricted Assignment Case.* manuscript.

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

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.

Moritz Buchem, Lars Rohwedder, Tjark Vredeveld, Andreas Wiese. *Additive Approximation Schemes for Load Balancing Problems.* manuscript.

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

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

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

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

Marin Bougeret, Klaus Jansen, Michael Poss, Lars Rohwedder. *Approximation Results for Makespan Minimization with Budgeted Uncertainty.* WAOA'19.

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

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

Klaus Jansen, Lars Rohwedder. *A Note on the Integrality Gap of the Configuration LP for Restricted Santa Claus.* Information Processing Letters.

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

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

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

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

Teaching Activities		
Approximation algorithms - Teaching Assistant	Sommer 2019
Introduction to operations research - Teaching Assistant	Winter 2018/19
Efficient algorithms - Teaching Assistant	Sommer 2018
Introduction to operations research - Teaching Assistant	Winter 2017/18
Efficient algorithms - Teaching Assistant	Sommer 2017

Introduction to operations research - Teaching Assistant Winter 2016/17

Efficient algorithms - Teaching Assistant Sommer 2016

Theoretical computer science - Teaching Assistant Winter 2013/14

Software engineering - Teaching Assistant Winter 2012/13

Algorithms and data structures - Teaching Assistant Sommer 2012