

Global program

	Sunday June 2	Monday June 3	Tuesday June 4	Wednesday June 5	Thursday June 6	Friday June 7	
9:00 - 9:15		Welcome				Parallel sessions	
9:15 - 10:15		Keynote lecture	Keynote lecture	Keynote lecture	Parallel sessions 9:25-10:15		
10:15 - 10:45		Break					
10:45 - 12:00		Parallel sessions	Parallel sessions	Parallel sessions	Parallel sessions	Parallel sessions	
12:00 - 13:30		Lunch break				Lunch and farewell	
16:00 - 17:15	Registration	Parallel sessions	Industry session	No activities scheduled (leave for conference dinner at 18:00)	Keynote lecture 16:00 - 17:00		
17:15 - 17:40						Parallel sessions 17:15 - 18:30	
17:40 - 18:30		Parallel sessions	Open problem session				
	Dinner			Conference dinner 18:30 - 23:00	Dinner		

Monday June 3 – morning

09:00 -	OPENING & WELCOME		
09:15 -	KEYNOTE LECTURE Chair : Samir Khuller		
10:15	Opinion Dynamics Petra Berenbrink (Universität Hamburg)		
10:15 -	COFFEE BREAK		
10:45 -	PARALLEL SESSION A (UNITE 3/4) Chair: Clifford Stein Online Non-preemptive Scheduling to Minimize Maximum Weighted Flow-time on Related Machines Giorgio Lucarelli, Benjamin Moseley, Kim Thang Nguyen, Abhinav Srivastav* and Denis Trystram An O(log log m)-competitive Algorithm for Online Machine Minimization Sungjin Im, Benjamin Moseley, Kirk Pruhs*, and Clifford Stein A general framework for handling commitment in online throughput maximization Lin Chen, Franziska Eberle*, Nicole Megow, Kevin Schewior and Clifford Stein	PARALLEL SESSION B (UNITE 1) Chair: Han Hoogeveen The Anchor-Robust Project Scheduling Problem Adèle Pass-Lanneau*, Pascale Bendotti, Philippe Chrétienne and Pierre Foulhoux Parallel Machine Scheduling with a Single Resource per Job Teun Janssen, Céline Swennenhuis*, Abdel Bitar, Thomas Bosman, Stéfane Dauzère-Pérès, Dion Gijswijt, Leo van Iersel and Claude Yugma Solving stochastic machine scheduling problems by estimating the solution value within local search Han Hoogeveen*, Marjan Van Den Akker, Guido Passage and Jan Posthoorn	PARALLEL SESSION C (UNITE 8) Chair: Marc Schröder Price-of-Anarchy in Stochastic Atomic Congestion Games with Affine Costs Roberto Cominetti, Marco Scarsini, Marc Schröder* and Nicolas Stier-Moses Congestion Games with Priority Lists Vipin Ravindran Vijayalakshmi* and Marc Schröder Scheduling with asymmetric piecewise-linear time-dependent processing times Helmut A. Sedding*
12:00 -	LUNCH BREAK		
13:30			

Monday June 3 - afternoon

16:00 -	PARALLEL SESSION A (UNITE 3/4) Chair: Tim Oosterwijk The Price of Anarchy for Flows over Time José Correa, Andrés Cristi and Tim Oosterwijk* Approximation and complexity of multi-target graph search and the Canadian traveler problem Martijn van Ee* and René Sitters A special case of the Equitable Travelling Salesman Problem Moritz Buchem*, Kirsten A.A. Raaimakers and Tjark Vredeveld	PARALLEL SESSION B (UNITE 1) Chair: Yan Gu Simplified Analysis of the Randomized Work-Stealing Scheduler Yan Gu* Mixed-Integer Programming Heuristics for the Blocking Job Shop Scheduling Problem Julia Lange* and Reinhard Bürgy An optimal randomized online algorithm for the k-Canadian Traveller Problem on node-disjoint paths Stephan Westphal* and Marco Bender	PARALLEL SESSION C (UNITE 8) Chair: Bertrand Simon Parallel scheduling of DAGs under memory constraints Loris Marchal, Bertrand Simon* and Frédéric Vivien Scheduling of jobs with integral-based processing times vs. scheduling of generalized unit-time jobs Bartłomiej Przybylski* Lift and Project Algorithms for Precedence Constrained Scheduling to Minimize Completion Time Shashwat Garg, Janardhan Kulkarni and Shi Li
17:15 -	BREAK		
17:40 -	PARALLEL SESSION A (UNITE 3/4) Chair: Vincent T'Kindt Identical parallel machine scheduling with minimum number of tardy jobs: approximation and exponential algorithms Federico Della Croce and Vincent T'Kindt* Budget Minimization with Precedence Constraints Marinus Gottschau, Felix Happach, Marcus Kaiser* and Clara Waldmann	PARALLEL SESSION B (UNITE 1) Chair: Minming Li Well behaved Online Load Balancing Against Strategic Jobs Bo Li, Minming Li* and Xiaowei Wu Models and Algorithms for Distributed Order Management Yaron Fairstein*, Michael Berezansky, Luke Marshall, Ishai Menache, Seffi Naor, Ola Svensson and Timur Tankayev	PARALLEL SESSION C (UNITE 8) Chair: Jiri Sgall A ϕ-Competitive Algorithm for Scheduling Packets with Deadlines Pavel Vesely, Marek Chrobak, Lukasz Jez and Jiri Sgall* Lower bounds on the asymptotic competitive ratio for various bin packing problems János Balogh, József Békési, György Dósa, Leah Epstein* and Asaf Levin

Tuesday June 4 – morning

09:15 - 10:15	KEYNOTE LECTURE Chair : André Berger Approximation algorithms in appointment scheduling Neil Olver (Vrije Universiteit Amsterdam)		
10:15 - 10:45	COFFEE BREAK		
10:45 - 12:00	PARALLEL SESSION A (UNITE 3/4) Chair: Benjamin Moseley Packing Lower-Left Anchored Rectangles with Resource Augmentation Antonios Antoniadis, Andrés Cristi, Ruben Hoeksma and Lukas Nölke* A Near Optimal Mechanism for Energy Aware Scheduling Antonios Antoniadis* and Andrés Cristi A scheduling model motivated by cyber-security and adaptive machine learning Clifford Stein*, Ojas Parekh, Cynthia Phillips, Vladlena Powers and Nourhan Sakr	PARALLEL SESSION B (UNITE 1) Chair: Tami Tamir Scheduling and n-fold Integer Programming: Experimental Evaluation Katerina Altmanová*, Dušan Knop and Martin Koutecky Best-of-two-worlds analysis in searching and scheduling Spyros Angelopoulos, Christoph Dürr and Shendan Jin Cost-Sharing Games in Real-Time Scheduling Systems Tami Tamir*	PARALLEL SESSION C (UNITE 8) Chair: Sandy Heydrich Analyzing and optimizing the throughput of a pharmaceutical production process Heiner Ackermann, Sandy Heydrich* and Christian Weiß Scheduling a Proportionate Flow Shop of Batching Machines Christoph Hertrich*, Heiner Ackermann, Sandy Heydrich, Sven O. Krumke and Christian Weiß On the flexibility of Home-Away pattern sets Roel Lambers*, Dries Goossens and Frits Spijksma
12:00 - 13:30	LUNCH BREAK		

Tuesday June 4 – afternoon

16:00 - 17:15	INDUSTRY SESSION Chair : Tjark Vredeveld Designing a road transportation network for large scale customers Luuk van Rijthoven* and Hans Schut (DHL) Optimization Problems in Practice Goos Kant* (ORTEC)
17:15 - 17:40	BREAK
17:40 - 18:30	OPEN PROBLEM SESSION Chair: Federico Della Croce

Wednesday June 5 – morning

<p>09:15 - 10:15</p>	<p>KEYNOTE LECTURE Chair: René Sitters</p> <p>Cup Emptying Games and I/O Scheduling Michael Bender (Stony Brook University)</p>		
<p>10:15 - 10:45</p>	<p>COFFEE BREAK</p>		
<p>10:45 - 12:00</p>	<p>PARALLEL SESSION A (UNITE 3/4) Chair: Kunal Agrawal</p> <p>On the complexity of the two-machine routing flow shop Ilya Chernykh*, Alexander Kononov and Sergey Sevastyanov</p> <p>A Polynomial-Time Algorithm for Rapid Routing with Guaranteed Delay Bounds Kunal Agrawal and Sanjoy Baruah*</p> <p>Scheduling to Approximate Minimization Objectives on Identical Machines Benjamin Moseley*</p>	<p>PARALLEL SESSION B (UNITE 1) Chair: Vincent Chau</p> <p>A PTAS for Euclidean TSP with hyperplane neighborhoods Antonios Antoniadis, Krzysztof Fleszar, Ruben Hoeksma* and Kevin Schewior</p> <p>Weighted Throughput Maximization with Calibrations Vincent Chau*, Shengzhong Feng, Minming Li, Yinling Wang, Guochuan Zhang and Yong Zhang</p> <p>Inland waterway efficiency through skipper collaboration and joint speed optimization Julian Golak*, Veerle Timmermans, Alexander Grigoriev and Christof Defryn</p>	<p>PARALLEL SESSION C (UNITE 8) Chair: Jannik Matuschke</p> <p>Expanding search in general graphs: A branch-and-cut procedure Ben Hermans*, Jannik Matuschke and Roel Leus</p> <p>Maximizing the net present value of a project under uncertainty: the value of activity delays Salim Rostami*, Stefan Creemers and Roel Leus</p> <p>Net present value maximization in project scheduling with an external resource Mahboobeh Peymankar, Morteza Davari*, Mohammad Ranjbar and Roel Leus</p>
<p>12:00 - 13:30</p>	<p>LUNCH BREAK</p>		

Thursday June 6 - morning

09:25 - 10:15	<p>PARALLEL SESSION A (UNITE 3/4) Chair: Prudence Wong</p> <p>An Improved Online Algorithm for Traveling Repairperson Problem on the Line Marcin Bienkowski* and Hsiang-Hsuan Liu</p> <p>Greedy is Optimal Online Algorithm for Smart Grid Scheduling of Unit Size Jobs Fu-Hong Liu, Hsiang-Hsuan Liu* and Prudence W.H. Wong</p>	<p>PARALLEL SESSION B (UNITE 1) Chair: Vitaly Strusevich</p> <p>Approximation algorithms for single machine scheduling with non-renewable resources and the total weighted completion time Peter Gyorgyi* and Tamas Kis</p> <p>Approximation algorithms for scheduling on parallel machines under resource constraints Vitaly Strusevich*</p>	<p>PARALLEL SESSION C (UNITE 8) Chair: Antonios Antoniadis</p> <p>Robust buffer allocation using a network flow-based algorithm Pascal C. Wortel* and Sven O. Krumke</p> <p>Prophet Inequalities for Independent Random Variables from an Unknown Distribution José Correa, Paul Dütting, Felix Fischer and Kevin Schewior*</p>
10:15 - 10:45	COFFEE BREAK		
10:45 - 12:00	<p>PARALLEL SESSION A (UNITE 3/4) Chair: Shi Li</p> <p>A $(2 + \epsilon)$-approximation for precedence constrained single machine scheduling with release dates and total weighted completion time objective Rene Sitters* and Liya Yang</p> <p>Precedence Constrained Scheduling to Minimize Makespan Janardhan Kulkarni, Shi Li, Jakub Tarnawski and Minwei Ye</p> <p>Approximating Total Weighted Completion Time on Identical Parallel Machines with Precedence Constraints and Release Dates Sven Jäger*</p>	<p>PARALLEL SESSION B (UNITE 1) Chair: Jian-Jia Chen</p> <p>Scheduling for gathering multitype data Joanna Berlinska* and Bartlomiej Przybylski</p> <p>Dependency Graph Approach for Multiprocessor Real-Time Synchronization Jian-Jia Chen, Georg von der Brüggen*, Junjie Shi and Niklas Ueter</p> <p>A Mapping Methodology for Coarse-Grained Pipelined Configurable Architectures Elias Barbudo*, Eva Dokladalova, Thierry Grandpierre and Laurent George</p>	<p>PARALLEL SESSION C (UNITE 8) Chair: Johann Hurink</p> <p>The Price of Fixed Assignments in Stochastic Extensible Bin Packing Guillaume Sagnol, Daniel Schmidt Genannt Waldschmidt* and Alexander Tesch</p> <p>The Multiple Traveling Salesperson Problem on Regular Grids Anna Jellen*, Philipp Hungerländer, Kerstin Maier, Stefan Jessenitschnig, Lisa Knoblinger and Manuel Lackenbacher</p> <p>MIP formulations for just-in-time scheduling around a common due-date Anne-Elisabeth Falq*, Pierre Fouilhoux and Safia Kedad-Sidhoum</p>
12:00 - 13:30	LUNCH BREAK		

Thursday June 6 - afternoon

16:00 - 17:00	<p>KEYNOTE LECTURE Chair: Leen Stougie</p> <p>New models and algorithms for clustering problems Aravind Srinivasan (University of Maryland)</p>		
17:00 - 17:15	SHORT BREAK		
17:15 - 18:30	<p>PARALLEL SESSION A (UNITE 3/4) Chair: Neil Olver</p> <p>Fixed-Order Scheduling on Parallel Machines Thomas Bosman, Dario Frascaria, Neil Olver, Rene Sitters and Leen Stougie</p> <p>Malleable job scheduling on non-identical machines Dimitris Fotakis, Jannik Matuschke* and Orestis Papadigenopoulos</p> <p>Scheduling preemptable position-dependent jobs on two parallel identical machines Marcin Zurowski and Gawiejnowicz Stanislaw*</p>	<p>PARALLEL SESSION B (UNITE 1) Chair: Michael Bender</p> <p>The Online Event Detection Problem Michael A. Bender, Jonathan Berry, Martin Farach-Colton, Rob Johnson, Thomas Kroeger, Prashant Pandey, Cynthia Phillips and Shikha Singh*</p> <p>Online Makespan Minimization via Compact Predictions Silvio Lattanzi, Thomas Lavastida*, Benjamin Moseley and Sergei Vassilvitskii</p> <p>The Price of Clustering in Bin-Packing with Applications to Bin-Packing with Delays Yossi Azar, Yuval Emek, Rob van Stee* and Danny Vainstein</p>	<p>PARALLEL SESSION C (UNITE 8) Chair: Ilya Chernykh</p> <p>Tight optima localization interval for the two-machine routing open shops on an arbitrary tree Ilya Chernykh and Olga Krivonogova*</p> <p>Optimizing the Utilization of Locomotives considering Maintenance Constraints with a Mixed-Integer Linear Program Sarah Frisch*, Anna Jellen, Philipp Hungerländer and Dominic Weinberger</p> <p>A New Mathematical Approach for Circular Layouts Philipp Hungerländer, Kerstin Maier, Veronika Pachatz*, Jörg Pöcher and Christian Truden</p>

Friday June 7 – morning

<p>09:00 - 10:15</p>	<p>PARALLEL SESSION A (UNITE 3/4) Chair: Frits Spieksma</p> <p>A 0.5-Approximation Algorithm for the Multiple Knapsack Problem with Cluster Capacities Bernard Zweers* and Guido Schäfer</p> <p>Minimizing makespan with an energy budget Lin Chen, Wenchang Luo and Guochuan Zhang*</p> <p>Online Interval Scheduling on Two Related Machines: the Power of Lookahead Nicolas Pinson and Frits Spieksma*</p>	<p>PARALLEL SESSION B (UNITE 1) Chair: Peter Kling</p> <p>Solving the Combined Cell Layout Problem with an Integer Linear Programming Formulation Miguel F. Anjos, Philipp Hungerländer and Kerstin Maier*</p> <p>Robustness in stochastic parallel machine scheduling Max Hessey, Marjan Van Den Akker* and Roel van den Broek</p> <p>On the Complexity of Center-Anchored Rectangle Packing Felix Biermeier*, Christoph Damerius, Dominik Kaaser and Peter Kling</p>	
<p>10:15 - 10:45</p>	<p>COFFEE BREAK</p>		
<p>10:45 - 12:00</p>	<p>PARALLEL SESSION A (UNITE 3/4) Chair: José Verschae</p> <p>Breaking Symmetries to rescue Sum of Squares: The case of makespan scheduling Victor Verdugo and José Verschae*</p> <p>On Submodular Search and Machine Scheduling Robbert Fokkink, Thomas Lidbetter* and László Végh</p> <p>Hiring Secretaries over Time: The Benefit of Concurrent Employment Yann Disser, John Fearnley, Martin Gairing, Oliver Göbel, Max Klimm, Daniel Schmand, Alexander Skopalik and Andreas Tönnis*</p>	<p>PARALLEL SESSION B (UNITE 1) Chair: Klaus Jansen</p> <p>Getting every last drop: Lower bounds for semi-online makespan minimization with help of a computer cluster Martin Böhm*</p> <p>A new and improved algorithm for online bin packing János Balogh, József Békési, György Dósa, Leah Epstein and Asaf Levin*</p> <p>A Quasi-Polynomial Approximation for the Restricted Assignment Problem Klaus Jansen* and Lars Rohwedder</p>	<p>PARALLEL SESSION C (UNITE 8) Chair: Michael Helmling</p> <p>Scheduling of a Multi-Purpose Chemical Batch Process on Product-Specific Lines with a Shared Initial Machine Michael Helmling*, Heiner Ackermann and Christian Weiß</p> <p>Non-Destructive Monitoring by a Sensor Network: Complexity of an Inverse Problem Balasubramanian Kalyanasundaram and Mahendran Velauthapillai*</p>

