MAPSP 2017 Accepted Papers

Sigrid Knust and Stefan Waldherr. Decomposition algorithms for synchronous flow shop problems with additional resources and setup times

Gruia Calinescu, Florian Jaehn, <u>Minming Li</u> and Kai Wang. An FPTAS of Minimizing Total Weighted Completion Time on a Single Machine with Position Constraint

Kerstin Maier and Philipp Hungerländer. An Integer Linear Programming Approach for Handling New Real-World Motivated Constraints of the Curriculum-Based Course Timetabling Problem

Antje Bjelde, Yann Disser, Jan Hackfeld, Christoph Hansknecht, Maarten Lipmann, Julie Meissner, Kevin Schewior, Miriam Schlöter and Leen Stougie. Tight Competitive Analysis for Online TSP on the Line

Martin Böhm, Marek Chrobak, Łukasz Jeż, Fei Li, Jiří Sgall and Pavel Veselý. Online Packet Scheduling with Bounded Delay and Lookahead

<u>Vincenzo Bonifaci</u>, <u>Gianlorenzo D'Angelo</u> and <u>Alberto Marchetti-Spaccamela</u>. Algorithms for hierarchical and semi-partitioned parallel scheduling

<u>René Van Bevern</u>. On the parameterized complexity of scheduling with side constraints: Recent results and new challenges

Lin Chen and <u>Dániel Marx</u>. Covering a tree with rooted subtrees -- parameterized and approximation algorithms

Carsten Fischer, Antonios Antoniadis and Andreas Tönnis. Generalized Lower Bounds for Online Matching on the Line

Gyorgy Dosa, Hans Kellerer and Zsolt Tuza. Restricted Assignment Scheduling with Resource Constraints

Joanna Berlińska. Scheduling data gathering in 2-level tree networks

Fabrizio Grandoni, <u>Tobias Mömke</u>, Andreas Wiese and <u>Hang Zhou</u>. To Augment or Not to Augment: Solving Unsplittable Flow on a Path by Creating Slack

Neil Olver, Kirk Pruhs, Kevin Schewior, Rene Sitters and Leen Stougie. The Itinerant List Update Problem

<u>Sandy Heydrich</u> and Andreas Wiese. Faster approximation schemes for the two-dimensional knapsack problem

Peter Gyorgyi and Tamas Kis. Branch-and-cut for machine scheduling with non-renewable resources and the maximum lateness objective

Saba Ahmadi, Samir Khuller, Manish Purohit and Sheng Yang. On Scheduling Co-Flows

Alexander Kononov and Yulia Kovalenko. On Energy Efficient Scheduling of Parallel Jobs with Preemption

Petra Vogl, Roland Braune and Karl F. Doerne. Scheduling Recurring and Optional Activities for Radiotherapy considering Stable Treatment Starting Times

Dirk Briskorn, Jenny Nossack and Erwin Pesch. Container Dispatching and Conflict-Free Yard Crane Routing in an Automated Container Terminal

Pierre-Antoine Morin, Christian Artigues and Alain Hait. A New Mixed Time Framework for the Periodically Aggregated Resource-Constrained Project Scheduling Problem

Elina Rönnberg, Emil Karlsson, Tomas Lööw and Mathias Blikstad. A constraint generation procedure for pre-runtime scheduling of integrated modular avionic systems

<u>Klaus Jansen</u>, <u>Kim-Manuel Klein</u> and <u>José Verschae</u>. Improved efficient approximation schemes for scheduling jobs on identical and uniform machines

Sandy Heydrich and Rob van Stee. Beating the Harmonic lower bound for online bin packing

Sungjin Im and Shi Li. Better Unrelated Machine Scheduling for Weighted Completion Time via Random Offsets from Non-Uniform Distributions

<u>Thomas Kesselheim</u> and <u>Andreas Tönnis</u>. The Temp Secretary Problem and Partly-Stochastic Models for Online Scheduling

Christoph Dürr, Thomas Erlebach, Julie Meißner and Nicole Megow. An adversarial model for scheduling with testing

José Correa, Patricio Foncea, <u>Ruben Hoeksma</u>, <u>Tim Oosterwijk</u> and <u>Tjark Vredeveld</u>. How to allocate prices to random customers?

<u>Vincenzo Bonifaci, Björn Brandenburg, Gianlorenzo D'Angelo</u> and <u>Alberto Marchetti-Spaccamela</u>. Multiprocessor Real-Time Scheduling with Hierarchical Processor Affinities

Erwin Pesch, Dominik Kress and Nils Boysen. Models and algorithms for a partition problem arising in warehousing

Roman Rischke, Lin Chen, Yann Disser, Martin Groß, Fidaa Abed, Nicole Megow, Julie Meißner and Alexander T. Richter. Scheduling Maintenance Jobs in Networks

<u>Murat Güngör</u> and <u>Ali Tamer Ünal</u>. A parallel machine lot-sizing and scheduling problem with secondary resource and cumulative demand

Eyjólfur Ingi Ásgeirsson, Magnus M. Halldorsson and Tigran Tonoyan. Conflict Graphs and Scheduling in Wireless Networks

Tobias Harks, Britta Peis, Daniel Schmand, Björn Tauer and Laura Vargas Koch. Competitive Packet Routing with Priority Lists

Michael Helmling and Sebastian Velten. Interactive decision support for multi-goal operating theater scheduling with different planning horizons

<u>Heiner Ackermann</u> and Andreas Dinges. Computing efficient pressing operations for glued laminated timber production

Syamantak Das and Andreas Wiese. On minimizing the makespan with bag constraints

Paul Göpfert and Stefan Bock. A Branch and Bound Approach for Single Machine Scheduling in the Automotive Supply Chain

<u>Ulrich Vogl</u> and <u>Markus Siegle</u>. A new approach to predicting more reliable project runtimes via probabilistic model checking

Viktor Bindewald, David Adjiashvili and Dennis Michaels. Robust Assignments: Hardness, Approximability and Algorithms

Macarena Azar, <u>Javiera Barrera</u> and <u>Rodrigo Carrasco</u>. Operating Room Scheduling with Variable Procedure Times

<u>Antonios Antoniadis</u>, Ruben Hoeksma, Julie Meißner, José Verschae and Andreas Wiese. The general scheduling problem with uniform release dates is not APX-hard.

Fredrik Altenstedt, Björn Thalén, Per Sjögren and Staffan Nilsson. Solving the airline manpower planning problem

Marin Bougeret, Guillerme Duvillié and Rodolphe Giroudeau. Maximizing the minimum gap

Clifford Stein and Mingxian Zhong. Scheduling When You Don't Know the Number of Machines

Britta Peis, José Verschae and Andreas Wierz. The Greedy Algorithm for Capacitated Covering Problems

Giorgio Lucarelli, <u>Kim Thang Nguyen</u>, Abhinav Srivastav and <u>Denis Trystram</u>. Online Min-Sum Flow Scheduling with Rejections

Yannis Marinakis and Magdalene Marinaki. Hybrid Adaptive Particle Swarm Optimization Algorithm for the Permutation Flowshop Scheduling Problem

Joris Kinable, Bart Smeulders, Frits Spieksma and Eline Delcour. Exact algorithms for the Equitable Traveling Salesman Problem

Mohamed Amine Mkadem, Aziz Moukrim and Mehdi Serairi. An exact method for solving the twomachine flow-shop problem with time delays

Benoit Cantais, Antoine Jouglet and David Savourey. Three models and a set of dominance rules for the speed meeting problem

<u>Fanny Pascual</u> and Krzysztof Rzadca. Optimizing egalitarian performance in the side-effects model of colocation for data center resource management

Klaus Jansen and Kim-Manuel Klein. New Structural Results for Bin Packing with a Constant Number of Item Types

Tobias Hofmann. A Variant of the Periodic Event Scheduling Problem and its Cycle Periodicity Formulation

Yossi Azar, Amir Epstein, Łukasz Jeż and Adi Vardi. Make-to-Order Integrated Scheduling and Distribution

Martijn van Ee, Leo van Iersel, Teun Janssen and Rene Sitters. A priori TSP in the scenario model

Martin Böhm, Łukasz Jeż, Jiří Sgall and Pavel Veselý. On Packet Scheduling with Adversarial Jamming and Speedup

Margaux Nattaf, Tamas Kis, Christian Artigues and <u>Pierre Lopez</u>. Polyhedral results and valid inequalities for the Continuous Energy-Constrained Scheduling Problem

Bartłomiej Przybylski. A new model of continuous learning and its applications in scheduling

<u>Gawiejnowicz Stanislaw</u> and Kurc Wieslaw. A new necessary condition of optimality for a single machine scheduling problem with deteriorating jobs

Anfal Algharabally, <u>Bala Kalyanasundaram</u> and Mahendran Velauthapillai. k-letter Problem: Application, Approximation and Generalization

Ignacio Morales and José Verschae. A generalization of the Knapsack-Cover inequalities for linear functions with fixed costs

Ilya Chernykh and Ekaterina Lgotina. On the optima localization in two-machine routing open shops

Ilya Chernykh and Ekaterina Lgotina. Routing open shop: a hierarchy of superproblems

Thomas Erlebach, Fu-Hong Liu, Hsiang-Hsuan Liu, Mordechai Shalom, Prudence W.H. Wong and Shmuel Zaks. Complexity and online algorithms for a coloring problem on a line

Varun Gupta, Ben Moseley, <u>Marc Uetz</u> and Qiaomin Xie. Competitive greedy algorithms for stochastic unrelated machine scheduling

<u>Vitaly Strusevich</u>, Natalia Shakhlevich and <u>Akiyoshi Shioura</u>. Problems of Scheduling with Imprecise Computation Revisited

Yossi Azar and Sarel Cohen. A Note on Online Machine Minimization

Alexander Souza and Tim Nonner. Optimal Algorithms for Train Shunting and Relaxed List Update Problems

Jian-Jia Chen, Wen-Hung Huang and Georg von der Brueggen. Computational Complexity, Resource Augmentation Bounds, and Models for Self-Suspending Real-Time Tasks

Jian-Jia Chen, Wen-Hung Huang and Cong Liu. Efficient Frameworks for Utilization-Based Analysis for Fixed-Priority Scheduling in Real-Time Systems

Chouaib Mkireb, Abel Dembele, Antoine Jouglet and Thierry Denoeux. Scheduling Demand Response on the French Spot Power Market for Water Distribution Systems by Optimizing the Pump Scheduling

Thomas Bosman, Martijn van Ee, Csanad Imreh, Alberto Marchetti-Spaccamela, Martin Skutella and Leen Stougie. Minimizing the sum of completion times over scenarios

Murat Elhüseyni and Ali Tamer Unal. Integration of Vehicle Maintenance Scheduling and Single Dead-End Track Parking on a Multi-Week Planning Horizon

Slim Ben-Amor, <u>Dorin Maxim</u> and <u>Liliana Cucu-Grosjean</u>. Schedulability analysis of dependent probabilistic real-time tasks

<u>Helmut A. Sedding</u>. Line-side placement as a scheduling problem to minimize time-dependent walk times at assembly lines

Sorrachai Yingchareonthawornchai and Eric Torng. Delayed-Clairvoyant Scheduling

Martin Böhm and Pavel Veselý. Online Chromatic Number is PSPACE-complete

Sungin Im, Benjamin Moseley, <u>Clifford Stein</u> and <u>Kirk Pruhs</u>. Minimizing Maximum Flow Time on Related Machines via Immediate Dispatch and Dynamic Pricing

Peter Kling, Alexander Mäcker, Sören Riechers and Alexander Skopalik. On Scheduling with a Sharable Resource

Alexander Tesch. Single Machine Projections

Liliana Grigoriu. Linear-time approximation for minimum subset sum and subset sum

Marco Bender, <u>Clemens Thielen</u> and <u>Stephan Westphal</u>. Online Interval Scheduling with Bounded Number of Failures

Reuven Cohen and Guy Grebla. Scheduling in Advanced OFDMA Wireless Networks: An Algorithmic Perspective

Jean-Charles Billaut, Federico Della Croce, Fabio Salassa and T'Kindt Vincent. When shop scheduling meets dominoes, eulerian and hamiltonian paths

<u>Martin Skutella</u>. A 2.542-Approximation for Precedence Constrained Single Machine Scheduling with Release Dates and Total Weighted Completion Time Objective

Dusan Knop and Martin Koutecky. Scheduling meets n-fold Integer Programming