

DAY 1 - Wednesday 6 April 2022

Welcome Session at 8.30 AM

<https://vlerick.zoom.us/j/81322496972?pwd=Mmdwb3Y3OXlXRWFEjYUjZCt5L2kwZz09>

Student Award 1

[\(Same ZOOM link as Welcome Session\)](#)

9.00 AM - 10.30 AM

Chair: Erik Demeulemeester

Generation and Characterization of Real-World Instances for the Flexible Resource-Constrained Multi-Project Scheduling Problem
Hendrik Weber, Robert Brachmann, Rainer Kolisch

Large neighborhood search for a multi-mode resource constrained scheduling problem with resource leveling objective
Tom Portoleau, Christian Artigues, Tamara Borreguero Sanchidrian, Alvaro Garcia Sanchez, Migue! Ortega Mier, Pierre Lopez

New empirical and artificial data instances for the multi-skilled resource-constrained project scheduling problem
Jakob Snauwaert, Mario Vanhoucke

Project Scheduling Track

<https://vlerick.zoom.us/j/83725972479?pwd=ZTMvTjBBaE1leU5za2xFSU1N1Yz09>

10.50 AM - 12.10 PM

PS 1: RCPSP | Chair: José Coelho

Carbon footprint aware resource constrained project scheduling problem in manufacturing
Hunyun Rahman, Tom Servranckx, Ripon Chakraborty, Mario Vanhoucke, Sondoss El Sawah

Problem-specific Priority Rules for Resource-Constrained Project Scheduling Problem with Alternative Subgraphs
Rajin Nekoueiian, Tom Servranckx, Mario Vanhoucke

Assembly Line Performance Analysis Based on Aircraft Preliminary Design: a Scheduling Approach
Anouck Chan, Stéphanie Roussel, Thomas Polacsek

Heuristic solution approaches to the multi-project scheduling problem
Dries Bredael, Mario Vanhoucke

1.40 PM - 3.00 PM

PS 2: Extensions | Chair: Jürgen Zimmermann

A Novel Continuous-Time Mixed-Integer Linear Programming Model for the Multi-Mode Resource-Constrained Project Scheduling Problem
Nicklas Klein

A relaxation-based generation scheme for the RCPSP/max,pi
Mareike Karnebogen, Jürgen Zimmermann

A time-based schedule-generation scheme for project scheduling with storage resources
Mario Christian Sillius, Christoph Schwindt

A fix-and-optimize heuristic for the resource renting problem
Max Reinke, Jürgen Zimmermann

3.20 PM - 4.00 PM

PS 3: Methodologies | Chair: Avraham Shtub

Early-Stage Prediction of Project Duration - Machine Learning Approach vs. Traditional Approach
Itai Lishner, Avraham Shtub

A Method to Find Criticalities in Project Networks with Feeding Precedence Relations
Lucio Bianco, Massimiliano Caramia, Stefano Giordani, Alessio Salvatore

Machine Scheduling Track

<https://vlerick.zoom.us/j/81295231269?pwd=aWFuWVJ0d1JXald4V2g5MGFseFRdz09>

10.50 AM - 12.10 PM

MS 1: Job scheduling | Chair: Vincent T'kindt

Learning based heuristics for scheduling jobs with release dates on a single machine to minimize the sum of completion times
Axel Parmentier, Vincent T'kindt

Sequencing two classes of jobs on a machine with an external no-idle constraint
Alessandro Agnetis, Marco Pranzo

Application of Quantum Approximate Optimization Algorithm to Job Shop Scheduling Problem
Tomasz Pecyna, Krzysztof Kurowski, Rafal Rozycki, Grzegorz Waligora, Jan Weglarz

Extending Smith's Rule with Task Mandatory Parts and Release Dates
Camille Bonnin, Margaux Nattaf, Arnaud Malapert, Marie-Laure Espinouse

1.40 PM - 3.00 PM

MS 2: Parallel machine scheduling | Chair: Stéphane Dauzere-Peres

Insights and results for the offline and online weighted capacitated parallel machine scheduling problem
Izack Cohen, Ilan Cohen, Iyar Zaks

Maximal slacks between lower bounds of the makespan on parallel processors
Claire Hanen, Jacques Carlier

An Inclusion-Exclusion based general exponential-time algorithm for the solution of unrelated parallel machine scheduling problems
Olivier Platon, Vincent T'kindt

Aggregation techniques for a scheduling model on parallel machines in the photolithography area of the semiconductor manufacturing industry
Jeremy Berthier, Stéphane Dauzere-Peres, Claude Yugma

3.20 PM - 4.00 PM

MS 3: Robust/stochastic scheduling | Chair: Christian Artigues

Robust scheduling within SNCF railway maintenance centers
Rahman Torba, Stéphane Dauzere-Peres, Claude Yugma, Cédric Gallais, François Ramond

Two-stage stochastic/robust scheduling using permutable operation groups
Louis Riviere, Christian Artigues, Hélène Fargier

Plenary Session 1

[\(Same ZOOM link as Welcome Session\)](#)

4.00 PM - 5.00 PM

Chair: Erwin Pesch

The Fairy Tale of Scheduling and the Enchanted Combinatoric
Vincent T'Kindt