



Séminaire conjoint / Joint Seminar
Chaire de recherche du Canada en logistique et en transport et
Chaire de recherche du Canada en distributique

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AN ADAPTIVE LARGE NEIGHBORHOOD SEARCH HEURISTIC FOR THE PARALLEL MACHINE PROBLEM WITH TOOLING CONSTRAINTS (PMTC)

Abstract: The problem of processing a set of jobs with given processing times and tool requirement on a set of identical parallel machines is addressed. Decision variables regard the assignment of jobs to machines, the job sequencing and the tool allocation, and the objective function minimizes the makespan, that is, the total completion time of all jobs.

We propose an adaptive large neighborhood search heuristic in which the operators exploit structures of two well known optimization problems related to the PMTC, namely the parallel machine problem and the tool switching problem on a single machine. Numerical results are presented.

Note: Andreza C. Beezão did her undergraduate and Master studies in Mathematics at the University of São Paulo, Brazil. Currently, she is a Ph.D. student in Computer Science and Applied Mathematics at the University of São Paulo, under the supervision of Professors Horacio H. Yanasse and Franklina Toledo. In the last ten months, she has been doing a research internship at CIRRELT under the supervision of Professors Gilbert Laporte and Jean-François Cordeau.

JEUDI / THURSDAY

11 septembre 2014 /
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Salle / Room 5441
Pavillon André-Aisenstadt
Université de Montréal

Ouvert à tous / Open to all

Organisateur / Organizer
Jean-François Cordeau

