

Lushchakova, I.N. , Strusevich, V.A.

Scheduling incompatible tasks on two machines

Belarusian State University of Informatics and Radioelectronics, 6 P. Brovka St

School of Computing and Mathematical Sciences, University of Greenwich, Old

Royal Naval College, Park Row, London, SE10 9LS, United Kingdom

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Abstract

The paper studies the problem of scheduling tasks on two machines to minimize the makespan. The tasks are assigned to the machine in advance. An incompatibility relation is defined over the tasks which forbids any two incompatible tasks to be processed at the same time. The problem can serve as a mathematical model for some batching problems in which the jobs are grouped in pairs on two machines. A linear-time algorithm is presented. © 2009 Elsevier B.V. All rights reserved.

Author keywords

Incompatibility graph; Max-batch; Polynomial algorithm; Two machine scheduling

Indexed keywords

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Engineering controlled terms: Clustering algorithms; Machinery; Mathematical models

Engineering main heading: Graph theory

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