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**An  $O(n \log n)$  feasibility algorithm for preemptive scheduling of  $n$  independent jobs on a hypercube.** (English) [Zbl 0704.68052](#)

Inf. Process. Lett. 35, No. 1, 7-11 (1990).

Summary: We present a new feasibility algorithm to decide if  $n$  independent jobs can be finished by a given deadline  $T$  on an  $m$ -dimensional hypercube system. It takes  $O(n \log n)$  time and generates a schedule with at most  $n - 2$  preemptions. A previous known algorithm takes  $O(n^2)$  time and produces a schedule with up to  $1/2n(n - 1)$  preemptions.

**MSC:**

[68Q25](#) Analysis of algorithms and problem complexity

[68M20](#) Performance evaluation, queueing, and scheduling in the context of computer systems

[68M01](#) General theory of computer systems

Cited in 4 Documents

**Keywords:**

preemptive scheduling; hypercube; balanced search tree

**Full Text:** [DOI](#)

**References:**

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