DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
ODENSE UNIVERSITY

COMPUTER SCIENCE COLLOQUIUM

Extracting Pure Network Submatrices in Linear Programs using Signed Graphs

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Tuesday, April 7, 1998, at 2:15 PM
The Seminar Room

Abstract: We show that the problem of detecting an embedded network in a linear program is closely related to balanced signed graphs previously used in other applications. It leads to a simple linear time algorithm to recognize linear programs which can be transformed into pure networks by a sequence of row reflections. This algorithm can be used as a heuristic for extracting embedded networks in linear programs.

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