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An $O((m+n) \text{Max}\{m+n, n^3\})$ procedure for solving the linear programming problem

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Abstract

An iterative method based on conjugate gradient projection method (and not on any variant of Karmarkars algorithm) for solving linear programming problems is given. Our method consists of a sequence of moves: Starting with an initial interior point x_0 our procedure finds a second feasible point x_1 then a third point and so on until the optimal point is reached in at most $m+n$ steps. A simple example is given to illustrate our method. © 2009, INSInet Publication.

Author Keywords

Linear program-conjugate gradient Projection

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