

论文

无严格互补松弛条件的序列线性方程组新算法

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摘要:

该文通过构造特殊形式的有效集来逼近KKT点处的有效集, 给出了一个任意初始点下的序列线性方程组新算法, 并证明了该算法在没有严格互补松弛条件的情况下具有全局收敛性和一步超线性收敛性。

关键词: 非线性规划 序列线性方程组算法 严格互补松弛;全局收敛性;超线性收敛性

分类号:

90C33;65K10

A New Sequential Systems of Linear Equations Algorithm Without Strict Complementary Slackness

GAO Zi-You, Ren Hua-Ling, HE Guo-Ping

Abstract:

In this paper, a new algorithm of sequential systems of linear equations (SSLE) with arbitrary initial point is proposed by constructing a special active constraints set. Only one or two systems of linear equations with the same coefficient matrix are solved per iteration. The algorithm is globally convergent. It is worth pointing out that the algorithm still has one step superlinear convergence under some weaker assumptions, for instance, without the strict complementary slackness condition.

Keywords: Nonlinear problem Sequential Systems of Linear Equations Algorithm Global convergence Strict complementary slackness Super linear convergence.

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