

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**The Direct Extension of ADMM for
Multi-block Convex Minimization
Problems is Not Necessarily
Convergent**

邀请人: 优化与应用研究中心

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计算数学所报告厅

Abstract:

The alternating direction method of multipliers (ADMM) is now widely used in many fields, and its convergence was proved when two blocks of variables are alternatively updated. It is strongly desirable and practically valuable to extend ADMM directly to the case of a multi-block convex minimization problem where its objective function is the sum of more than two separable convex functions. However, the convergence of this extension has been missing for a long time — neither affirmatively proved convergence nor counter example showing its failure of convergence is known in the literature. In this paper we answer this long-standing open question: the direct extension of ADMM is not necessarily convergent. We present examples showing its failure of convergence.

Joint work with Chen, He and Yuan.

欢迎大家参加!