

数学与系统科学研究院

计算数学所博士后定期学术报告

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报告题目:

**Nearest Correlation Matrix
Problem-Under Spectral Norm**

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报告地点: **科技综合楼三层 311**

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Abstract:

In this talk, we consider the nearest correlation matrix problem (NCMP) under the spectral norm. To measure the nearness of two matrices in NCMP, the Frobenius norm is often the first choice, whereas the spectral norm is rarely used in literature due to the lack of proper tools. Thanks to the recent progress in matrix optimization problems, especially in the Moreau-Yosida regularization of the spectral norm function, we are now equipped with more tools to handle the spectral norm. For NCMP under spectral norm, we propose an augmented Lagrangian method with the subproblem solved in an alternating direction fashion, and give the preliminary convergence result. We extend it to the general case including more equality and inequality constraints. The proposed method has the potential to deal with other matrix optimization problems with spectral norm function. Extensive numerical results are presented to confirm the efficiency of the proposed method.

欢迎大家参加!