数学与系统科学研究院

计算数学所学术报告

报告人：**Assistant Prof. Xiaozhe Hu**

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报告题目：

Algebraic Multigrid Methods for Computing Diffusion State Distance on Graphs

邀请人： 张硕 博士

报告时间：**2017 年 8 月 9 日（周三）**

上午 10:00-11:00

报告地点： 科技综合楼三层

311 报告厅

Abstract：

Recently, diffusion state distance was introduced for protein-protein interaction networks and used for protein function prediction. In this talk, we focus on the challenges in computing diffusion state distance, especially for large-scale networks. By exploring the algebraic properties of the diffusion state distance, we reformulate the computation of the distance into solving a series of graph Laplacians and apply algebraic multigrid methods and random projections to solve them efficiently. Applications to the protein-protein networks will be presented and possible generalizations will be discussed.

欢迎大家参加！