

数学与系统科学研究院
计算数学所网络学术报告

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报告题目:

**High dimensional medical image
processing: from variational methods
to deep learning approaches**

邀请人: 周爱辉 研究员

报告时间: 2021 年 1 月 25 日 (周一)

上午 10:00-11:00

报告工具: 腾讯会议 (ID: 183 859 932)

Abstract:

Medical imaging is mathematically the inverse problem of calculating the internal images from a set of observation measurements. The high dimensional imaging sample less data but present more data redundancy than the low dimensional imaging. The well-established variational techniques for the low dimensional images may be not accurate even not applicable for high dimensional image processing due to the heterogeneity in different dimensions. In this talk, I will introduce our recent variational methods and deep learning approaches for sparsity and redundancy exploring in the high dimensional image, and present our results of their applications for some high dimensional medical image processing problems, such as ultrasound video segmentation, 4DCBCT reconstruction, spectral CT reconstruction, etc.

欢迎大家参加！