

数学与系统科学研究院

计算数学所定期网络学术报告

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报告题目:

**An introduction to approximate
message passing algorithms**

报告时间: **2022 年 3 月 3 日 (周四)**

下午 16:00-17:00

报告工具: **腾讯会议 (ID: 530 4940 3354)**

会议链接:

<https://meeting.tencent.com/dm/eK1WfnrIo7pS>

Abstract:

Approximate message passing (AMP) algorithms have recently become very popular in various signal estimation problems, including compressed sensing, low-rank matrix sensing, sparse PCA, and many others. AMP has also used as a tool for analyzing high-dimensional asymptotics of statistical estimators, and leads to bold conjectures about the fundamental computational limits of a few estimation problems. AMP was originally derived as an approximation of the belief propagation algorithm in the context of compressed sensing (where the associated factor graph is random and dense), and turns out to be deeply rooted in certain statistical physics problems (mean-field spin glasses). In this talk, I'll give a brief introduction to AMP algorithms and also discuss some of our own works in this area.

欢迎大家参加！