



## 复旦大学数学科学学院 数学综合报告会

### 午间学术报告会（一百二十九）

报告题目：**Coordinate-wise descent methods for leading eigenvalue problem**

报告人：李颖洲 青年研究员

（复旦大学数学科学学院）

报告时间：2021-03-12 星期五 12:00-13:00

报告地点：光华东主楼 2201

摘要：

Leading eigenvalue problems for large scale matrices arise in many applications. Coordinate-wise descent methods are considered in this talk for such problems based on a reformulation of the leading eigenvalue problem as a nonconvex optimization problem. The convergence of several coordinate-wise methods, including a randomized coordinate-wise method, is analyzed and compared. Numerical examples of applications to quantum many-body problems demonstrate the efficiency and provide benchmarks of the proposed coordinate-wise descent methods.

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