



## 复旦大学数学科学学院 数学综合报告会

报告题目: **On the spectral analysis of transition operators, automata groups and box-ball systems**

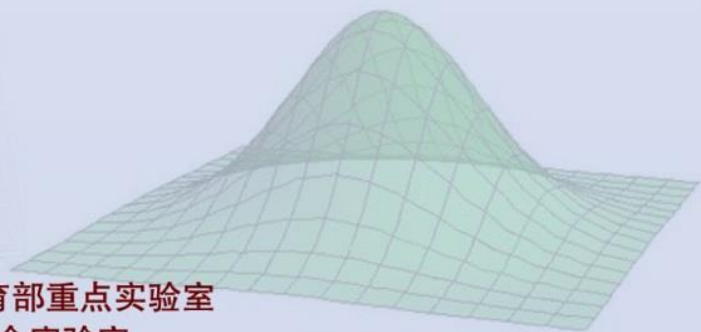
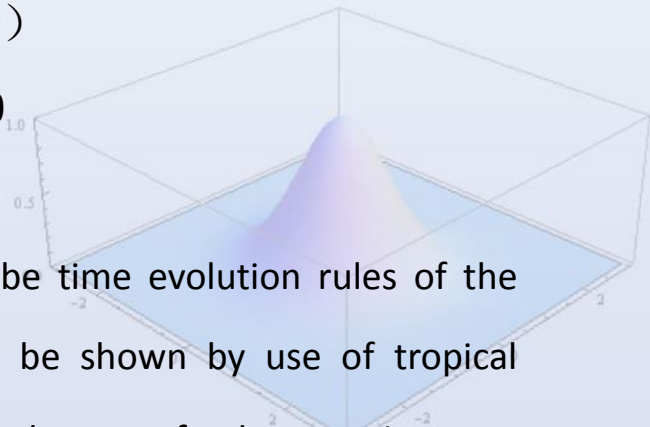
报告人: Professor Satoshi Tsujimoto

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报告时间: 2016-12-14 星期三 15:00

报告地点: 光华东主楼 1501

摘要: We give the automata which describe time evolution rules of the box-ball system (BBS) with a carrier. It can be shown by use of tropical geometry, such systems are ultradiscrete analogues of KdV equation. We discuss their relation with the lamplighter group generated by an automaton. We present spectral analysis of the stochastic matrices induced by these automata, and verify their spectral coincidence.



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