



复旦大学数学科学学院 数学综合报告会

报告题目: The sustainability probability for the critical Derrida-Retaux model

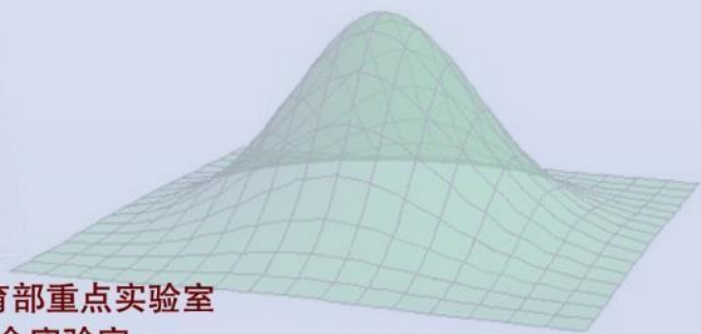
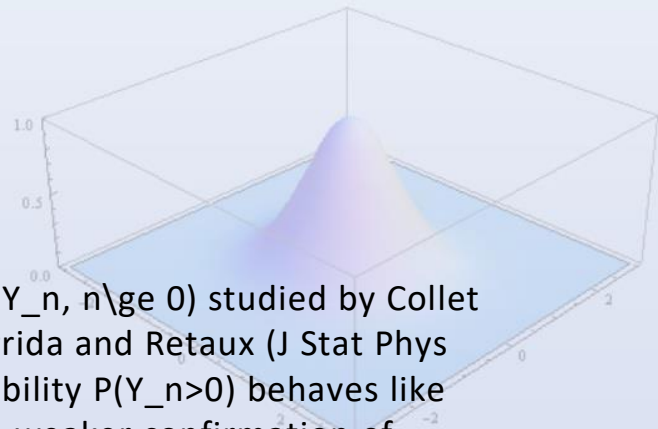
报告人: 陈新兴 (上海交通大学)

时间: 2022-05-27 星期五 10:00 - 11:00

地点: 腾讯会议: 514-223-922

报告摘要:

We are interested in the recursive model $(Y_n, n \geq 0)$ studied by Collet et al. (Commun Math Phys 1984) and by Derrida and Retaux (J Stat Phys 2014). We prove that at criticality, the probability $P(Y_n > 0)$ behaves like $n^{-2 + o(1)}$ as n goes to infinity; this gives a weaker confirmation of predictions made in Collet et al. (1984), Derrida and Retaux (2014) and Chen et al. (2019). Our method relies on studying the number of pivotal vertices and open paths, combined with a delicate coupling argument.



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复旦大学数学研究所