



复旦大学数学科学学院 数学综合报告会

报告题目: Stochastic Model and Optimization of SELEX

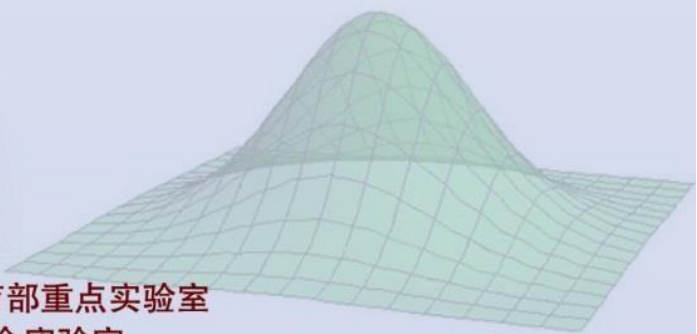
报告人: 王越 博士 (Postdoctoral fellow, Department of Computational Medicine, University of California)

时间: 2022-12-06 星期二 10:00-11:00

地点: 腾讯会议ID: 739-129-218, 密码: 200433

报告摘要:

Systematic Evolution of Ligands by EXponential enrichment (SELEX) is a process to select the best aptamer sequence in a huge aptamer library that binds a specified target molecule with the highest affinity. There has been a deterministic model of SELEX, and we develop a fully discrete stochastic model to obtain more accurate results when the mass action law does not hold. Specifically, we find that the optimal SELEX protocol in the stochastic model differs from that predicted by the deterministic model. If time permits, I will also introduce an impossibility result in inheritance law.



非线性数学模型与方法教育部重点实验室
中法应用数学国际联合实验室
上海市现代应用数学重点实验室
复旦大学数学研究所