



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Seminar in Geometry and Topology

Room 1 ,Ziskind Building  
on Tuesday, Jan 08, 2019  
at 16:00

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Random Knots

Abstract:

Random curves in space and how they are knotted give an insight into the behavior of "typical" knots and links. They have been studied by biologists and physicists in the context of the structure of random polymers. Several randomized models have been suggested and investigated, and many results have been obtained via computational experiment. The talk will begin with a review of this area.

In work with Hass, Linial, and Nowik, we study knots based on petal projections, potholder diagrams, and more. We have found explicit formulas for the limit distribution of finite type invariants of random knots and links in the Petaluma model. I will discuss these results and sketch proof ideas as time permits.