The Hong Kong University of Science and Technology

Department of Mathematics

Seminar on Probability

On random Schnyder Wood

By

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Abstract

In this talk I will introduce the model of random Schnyder wood and its scaling limit. A Schnyder wood is a plannar map and it determines a triple of lattice walks. For a uniformly distributed Schnyder wood of size N, we prove that the triple of lattice walks will converge to a triple of Brownian excursions as N goes to infinity. The limiting triple of Brownian excursions corresponds to a Liouville quantum gravity with parameter 1 decorated by a triple of SLE_{16} curves. If time permits I will also talk about some applications of Schnyder wood in computational geometry and physics.

This is a joint work with Xin Sun and Samuel Watson.

Date: **7 March 2018, Wednesday**

Time: **3:30p.m. - 4:30p.m.**

Venue: **Room 5562, Academic Building, (near Lifts 27&28), HKUST**

All are welcome!