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THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PROBABILITY

Last passage percolation near the axis

By

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Abstract

Last passage percolation (LPP) is a model of a directed metric on the integer lattice which has been intensely studied over the last number of decades. Although LPP serves as a relatively tractable stand-in for the more canonical first passage percolation (FPP), the major conjectures which arose in the study of FPP have only been established for a narrow class of so-called integrable special cases of LPP. Yet more, there remain questions which are open even in these nice cases. After a discussion of the current state of the field, we will see what more can be said "near the axis" — a scaling regime which simplifies things considerably but retains the desired features of the model. We will discuss scaling limits in two distinct regimes and the branching rate of the tree of geodesics in this setting. Based on joint works (both in progress) with Timo Seppäläinen and Xinyi Zhang.

Date : 16 April 2026 (Thursday)
Time : 2:00p.m. – 3:00p.m.
Venue : Room 3494 (near lift 25 & 26)

All are Welcome!