



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

Introduction to loop soup

by

Dr. Yifan GAO

City University

Abstract

The random walk loop soup is a collection of loops after a loop-erasure procedure. Its scaling limit, known as the Brownian loop soup, is a conformally invariant process that plays an important role in the study of two-dimensional lattice systems. These loop soups connect deeply with various models, such as GFF, SLE, loop-erased random walks, uniform spanning trees, etc. The basic properties of the loop soup and its connection to other models will be discussed in the talk.

Date : 21 April 2023 (Friday)

Time : 3:00pm – 5:00pm

Venue : Room 4472 (Lifts 25/26)

All are Welcome!