THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

Partitions and Compactifications of Loop Arithmetic Quotients

by

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Abstract

The notion of semi-stability and 'canonical' filtrations for Euclidean lattices grew out of the work of Harder and Narasimhan on vector bundles on curves. It has been used by several authors to give a partition of arithmetic quotients of reductive groups. I will try to explain how this picture generalizes to infinite-dimensional loop groups and sketch how it can be used to study a version of Borel-Serre compactifications in this context.

Joint work with Punya Satpathy.

> Date : **3 June 2025 (Tuesday)**
> Time : **3:00p.m.-4:00p.m.**
> Venue : **Room 4504 (Lift 25/26)**

All are Welcome!