THE UNIVERSITY



**OF HONG KONG** 

Department of Mathematics

## **Representation Theory Seminar**

## Hecke categories and positive depth representations of loop group

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## Abstract

Inspired by the theory of unrefined minimal K-types developed by Moy-Prasad, we study some associated Hecke categories and prove that they are monoidally equivalent to the affine Hecke categories of some smaller groups. This equivalence relates the study of certain positive depth representations of the loop group to the study of depth zero representations, thus having potential applications to the categorical version of wildly ramified local Langlands correspondence. The equivalence can be seen as a categorical version of a Hecke algebra isomorphism proved by Ju-Lee Kim.

> Date: August 14, 2023 (Monday) Time: 3:00 – 4:30pm Venue: Room 210, Run Run Shaw Building, HKU

> > All are welcome