THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research
Department of Mathematics

Representation Theory Seminar

Informal seminar on canonical basis

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Abstract

This is a learning seminar on the canonical basis.

1. A brief introduction to quantum groups, and the algebraic construction for canonical bases on quantum groups and their modules.
   Reference: Lusztig's book "Introduction to quantum groups".

2. The geometric realization for type A quantum groups and canonical bases using flag varieties.
   Reference: Beilinson, Lusztig and MacPherson's paper "A geometric setting for the quantum deformation of GLn"

3. An introduction to the total positivity and its connection with canonical bases.
   Reference: Lusztig's paper "Total positivity in reductive groups".

Date:	October 31, 2023 (Tuesday)
	November 7, 2023 (Tuesday)
Time:	1:30 – 4:00pm
Venue:	Room 210, Run Run Shaw Building, HKU

All are welcome