THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research
Department of Mathematics

Seminar

Quantum symmetric pairs, Hall algebras, and Hopf algebras

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Abstract

A quantum symmetric pair consists of a quantum group $\mathbf{U}$ and its coideal subalgebra $\mathbf{U}_\varsigma^\imath$ (called an $\imath$quantum group) with parameters ς. In this talk, we give two realizations of spilt $\imath$quantum groups $\mathbf{U}_\varsigma^\imath$ via the 1-periodic derived Hall algebras and the Δ-Hall algebras, respectively. Furthermore, we introduce the $\imath$Hopf algebras associated to self-dual Hopf algebras as a generalization of Δ-Hall algebras.

Date:	March 18, 2025 (Tuesday)
Time:	2:00 – 3:00pm
Venue:	Rm 210, Run Run Shaw Bldg., HKU

All are welcome