THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

Introduction to Coulomb branches and their cluster structure

by

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Abstract

Braverman, Finkelberg and Nakajima have recently proposed a mathematical definition of the Coulomb branch of a 3d N=4 gauge theory of cotangent type, associating to each such theory a family of associative algebras deforming the algebra of functions on an affine Poisson variety. In joint work with Alexander Shapiro (arxiv 1910.03186) we show that the Coulomb branch algebra embeds into the quantum cluster algebra determined by the BPS quiver of the theory. My talk will be an introduction to the BFN construction, focusing on the ingredients necessary to prove this result.

Date : **25 September 2020 (Friday)**

Time : **3:00pm – 4:00pm**

Zoom Meeting : **https://hkust.zoom.us/j/98600501763** (Passcode: 003168)

All are Welcome!