THE UNIVERSITY   **OF HONG KONG**

Geometry Seminar

Birational geometry of deformations of the Hilbert scheme of points on the projective plane

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Abstract

The deformation of the Hilbert scheme of points on the projective plane is first constructed in the paper of Nevins and Stafford by an approach of non-commutative geometry. In 2011, Hitchin reintroduces the construction by an approach from Poisson geometry. In addition, he shows that the construction by Nevins and Stafford is 'versal', in other words, all the deformations of the Hilbert scheme are constructed in their way. I will introduce the construction through an example of $\text{Hilb}^2 \, \mathbb{P}^2$, and talk about the result on the minimal model program of the deformation of $\text{Hilb}^n \, \mathbb{P}^2$ via the space of Bridgeland stability conditions.

Date: April 1, 2015 (Wednesday)

Time: 4:00 – 5:00pm

Place: Room 210, Run Run Shaw Bldg., HKU

All are welcome