**Seminar/Talk**

# Hilbert schemes of points on singular surfaces: combinatorics, geometry, and representation theory

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Host: Tamas Hausel

Given a smooth algebraic surface S over the complex numbers, the Hilbert scheme of points of S is the starting point for many investigations, leading in particular to generating functions with modular behaviour and Heisenberg algebra representations. I will explain aspects of a similar story for surfaces with rational double points, with links to algebraic combinatorics and the representation theory of affine Lie algebras. I will in particular explain our 2015 conjecture concerning the generating function of their Euler characteristics, and aspects of more recent work that lead to a very recent proof of the conjecture by Nakajima. Joint work with Gyenge and Nemethi, respectively Craw, Gammelgaard and Gyenge.

**Thursday, April 2, 2020 02:00pm - 04:00pm**
https://zoom.us/j/626437329

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