

Northeastern University



Mathematics Department

Geometry, Physics, and Representation Theory Seminar

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Thursday, March 1, 2:50-3:50 pm, Lake Hall 509

Twisted cubics on cubic fourfolds and stability conditions.

Abstract

It is a classical result of Beauville and Donagi that Fano varieties of lines on cubic fourfolds are hyper-Kähler. More recently, Lehn, Lehn, Sorger and van Straten constructed a hyper-Kähler eightfold out of twisted cubics on cubic fourfolds. In this talk, I will explain a new approach to these hyper-Kähler varieties via moduli of stable objects on the Kuznetsov components. Along the way, we will derive several properties of cubic fourfolds as consequences. This is based on a joint work with Chunyi Li and Laura Pertusi.