CONTRACTIONS VIA MODULI OF SHEAVES

Speaker: Svetlana Makarova

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Time:Mon., Nov. 2nd, 10:00-11:00

Venue:Room 102, SCMS

Abstract: Consider the stack of ideal sheaves of l points on a smooth projective variety X. Its good moduli space is the well-known Hilbert scheme of l points Hilb^l(X). In this talk, I will define a certain enlargement U of this stack and prove that it admits a good moduli space, which happens to recover a lot of known geometric contractions. As an application in the toy case l=1, I will explain how this construction helps contract rational curves on higher-dimensional varieties and, time permitting, use the interpretation of the surgery as a fine moduli of sheaves to prove instances Kawamata's DK-conjecture in this setting. This is joint work with Andres Fernandez Herrero.