MODULI OF CURVES OF GENUS 6 AND K-STABILITY

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Time: Mon, May 8, 15:00-17:00

Venue: Room 102, SCMS

Abstract:

A general curve C of genus 6 can be embedded into the unique quintic del Pezzo surface X_5 as a divisor of class -2K_{X_5}. This embedding is unique up to the action of the symmetric group S_5. Taking a double cover of X_5 branched along C yields a K3 surface Y. Thus the K-moduli spaces of the pair (X_5, cC) can be studied via wall-crossing and by relating them to the Hassett-Keel program for C and the HKL program for Y. On the other hand, X_5 can be embedded in P^1 \times P^2 as a divisor of class O(1,2), under which -2K_X is linearly equivalent to O_X(2,2). One can study the VGIT-moduli spaces in this setting. In this talk, I will compare these four types of compactified moduli spaces and their different birational models given by wall-crossing.