BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

COMPACT MODULI OF ELLIPTIC FIBRATIONS AND DEGREE ONE DEL PEZZO SURFACES

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December 5, 2018, 4:00 – 5:00pm
Math/Computer Science, Room 148
111 Cummington Street, Boston

Tea: 3:45pm in Room 148

Abstract: A degree one del Pezzo surface is the blowup of P^2 at 8 general points. By the classical Cayley-Bacharach Theorem, there is a unique 9th point whose blowup produces a rational elliptic surface with a section. Via this relationship, we can construct a stable pair compactification of the moduli space of anti-canonically polarized degree one del Pezzo surfaces. The KSBA theory of stable pairs (X, D) is the natural extension to dimension 2 of the Deligne-Mumford-Knudsen theory of stable curves. I will discuss the construction of the space of interest as a limit of spaces of weighted stable elliptic surface pairs and explain how it relates to some previous compactifications of the space of degree one del Pezzo surfaces. This is joint work with Kenny Ascher.

See `http://math.bu.edu/research/geom/seminar.html` or contact Yoosik Kim *yoosik@bu.edu* or Siu-Cheong Lau *lau@bu.edu* for more information.