Mathematics, Statistics, and Computer Science **@ UIC**

Departmental Colloquium

Compact moduli and degenerations

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Abstract: It has been said that working with non-compact spaces is like trying to hold change in your pocket with a hole in it. One of the central examples of non-compact spaces in algebraic geometry are moduli spaces. Broadly speaking, the points of a moduli space represent equivalence classes of algebraic varieties of a given type, and its geometry reflects the ways these varieties deform in algebraic families. The classification of algebraic varieties of a given type is tantamount to understanding the geometry of the corresponding moduli space. The goal of this talk is to discuss recent progress on compactifying moduli spaces of higher dimensional varieties, focusing on the interplay between compactifications of moduli spaces and singular degenerations of the objects they classify.

Monday, November 28 at 3:00 PM in 636 SEO