

Geometry, Physics, and Representation Theory  
Northeastern University

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Thursday, November 17, 2.50-3.50 pm, Lake Hall 509

**Stability on valuations of a singularity**

**Abstract.**

In this talk, we will discuss a recent work in progress (joint with Chi Li) in which we want to establish a stability theory of a fixed Kawamata log terminal singularity. We search the valuation which has the minimal normalized volume (defined by Chi Li) and try to prove properties such that it gives a degeneration to a stable T-singularity (with a torus action) in the Sasakian-Einstein sense. This can be considered a local counterpart of the stability theory of Fano varieties.