

Front Range Algebra, Geometry and Number Theory Seminar

# **Towards Bridgeland stability conditions on threefolds (and why you should care)**

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In this talk I will explain a conjectural construction of Bridgeland stability conditions on smooth projective threefolds. The conjecture (a Bogomolov-Giesker type inequality for the Chern classes of “tilt-stable” complexes in the derived category) turns out to be extremely interesting by itself, as it is closely connected to questions in birational geometry: from the classical Castelnuovo inequality to Fujita’s conjecture. (This is based on joint work with Aaron Bertram, Emanuele Macri’ and Yukinobu Toda.)

Tuesday March 29th 2011

2-3 PM

Webber 223