



Mathematisches Kolloquium

Am Freitag, dem 02. Mai 2014 spricht um 14.00 Uhr ct im Hörsaal IV
der Fachrichtung Mathematik (Gebäude E2 4)

**Professor Dr. Helge Ruddat
Johannes Gutenberg-Universität Mainz**

über das Thema:

Conifold Transitions via Tropical Geometry

Abstract: Miles Reid conjectured that any two Calabi-Yau threefolds are connected by a sequence of conifold transitions, i.e. the contraction of rational curves with subsequent smoothing of the resulting nodes. Morrison conjectured that mirror symmetry dualizes conifold transitions of Calabi-Yau threefolds in a neat way. Both conjectures underpin the relevance of conifold transitions. Recent work by Gross and Siebert about mirror symmetry and the boundary of the Calabi-Yau moduli space provides technology to approach conifold transitions from a tropical perspective. That such a perspective should be useful was first suggested by Gross and Ruan and is inspired by Strominger-Yau-Zaslow. We explain what this means and report on an ongoing work with Siebert.

Der Gast wird von Professor F.-O. Schreyer betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Tee ab 13.45 Uhr im Konferenzraum der Mathematik (Erdgeschoss, Raum 1.03)

Bitte beachten Sie, dass heute zwei Vorträge stattfinden.

Die Dozenten der Mathematik