Seminar/Talk

K-stablity of Fano 3-fold hypersurfaces of index 1

Livia Campo
University of Vienna

Host: Tim Browning

The existence of Kaehler-Einstein metrics on Fano 3-folds can be determined by studying lower bounds of stability thresholds. An effective way to verify such bounds is to construct flags of point-curve-surface inside the Fano 3-folds. This approach was initiated by Abban-Zhuang, and allows us to restrict the computation of bounds for stability thresholds only on flags. We employ this machinery to prove K-stability of terminal quasi-smooth Fano 3-fold hypersurfaces. This is deeply intertwined with the geometry of the hypersurfaces: in fact, birational rigidity and superrigidity play a crucial role. The superrigid case had been attacked by Kim-Okada-Won. In this talk I will discuss the K-stability of strictly rigid Fano hypersurfaces via Abban-Zhuang Theory. This is a joint work with Takuzo Okada.

Thursday, March 27, 2025 01:00pm - 03:00pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

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