

The University of Chicago
ALGEBRAIC GEOMETRY SEMINAR

Wednesday, May 27th, 2015
5:00 – 6:00 pm, Eckhart 312

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Equivalences of Calabi-Yau hypersurfaces in Toric Varieties.

Given Calabi-Yau hypersurfaces in a fixed toric variety, there are various constructions to find its mirror. Sometimes they are isomorphic, but sometimes they are not. Mirror symmetry predicts they still should be equivalent in some sense. In this talk, we will show that these (stacky) mirrors are birational and derived equivalent. If we have time, we will describe applications to more general contexts, depending on audience interest, about either lattice polarisations of families of K3 surfaces in toric varieties or extensions to Calabi-Yau complete intersections in toric varieties.