A Generalized Construction of Calabi-Yau Manifolds and Mirror Symmetry

Monday 11 June 2018 10:30 (45 minutes)

We extend the construction of Calabi-Yau manifolds to hypersurfaces in non-Fano toric varieties. The associated non-reflexive polytopes provide a generalization of Batyrev's original work, allowing us to construct new pairs of mirror manifolds. In particular, this allows us to find new K3-fibered Calabi-Yau manifolds, relevant for string compactifications.

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