

## **Homological mirror symmetry for Calabi--Yau hypersurfaces in toric varieties**

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Kontsevich's homological mirror symmetry conjecture predicts an equivalence between the derived category of coherent sheaves on one algebraic variety  $X$ , and the Fukaya category of a 'mirror' symplectic manifold  $Y$ . A broad class of conjectural mirror pairs  $(X, Y)$  of crepant resolutions of anticanonical hypersurfaces in Fano toric stacks was constructed by Batyrev. In recent work joint with Ganatra, Hanlon, Hicks, and Pomerleano, we prove Kontsevich's conjecture for a large subset of such Batyrev mirror pairs, namely those which are a hypersurface in a smooth toric variety (and in particular, don't need to be resolved) on the algebraic side, in all but finitely many characteristics. I will explain the result and give an outline of the proof.