Flops, flips and Fourier-Mukai transform

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Abstract

I will talk about my recent result on generalizing Bridgeland's result to terminal Gorenstein three-folds. The main result is a geometric construction of flops and the equivalence of derived categories under the natural FM transform.

I will focus on the main ideas of the proof and skip the technical details. If have enough time, I will also discuss joint work with D. Abramovich on the possible generalizations to Francia flops (flips).