Nick Addington:Â Exoflops

Consider a contraction pi: X -> Y from a smooth Calabi-Yau 3-fold to a singular one. (This is half of an "extremal transition;" the other half would be a smoothing of Y.) In many examples there is an intermediate object called an "exoflop" -- a category of matrix factorizations, derived-equivalent to X, where the critical locus of the superpotential looks like Y with a P^1 sticking out of it, and objects of D(X) that will be killed by pi_* correspond to objects supported at the far end of the P^1. I will discuss one or two interesting examples.

This is joint work with Paul Aspinwall.