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Flops of Crepant Resolutions

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Abstract: Let G be a finite subgroup of SL(3, $\mathcal{C}$) acting with an isolated singularity on $\mathcal{C}^3$. A crepant resolution of $\mathcal{C}^3/G$ comes together with a set of tautological line bundles associated to each irreducible representation of G. In this note we give a formula for the triple product of the first Chern class of the tautological bundles in terms of both the geometry of the crepant resolution and the representation theory of G. From here we derive the way these triple products change when we perform a flop.

Key Words: Calabi-Yau orbifolds, crepant resolutions