

Title: Chiral Rings from Localization on Spheres.

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Abstract

In supersymmetric theories, chiral rings are algebraic objects generated by operators that preserve some supersymmetry. They contain information about the low energy (IR) behaviour of the theories which may be strongly coupled. The main point of interest about these rings is that they can often be computed in weakly coupled high energy regime, providing access to valuable information about strongly coupled IR dynamics. We demonstrate a direct computational method for these rings using localization on spheres and apply it to 4D $N=2$ and 2D $N=(2,2)$ theories. In both cases, there are rich descriptions of these rings being fibered over moduli spaces of vacua with integrable structures governed by tt^* equations. The poster will be based on arXiv:1602.05971 and arXiv:1712.02551.