

Abstract Submitted
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Aspects of SUSY CFTs and RG flows KENNETH INTRILIGATOR,
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Princeton, THOMAS DUMITRESCU, Harvard — Supersymmetry is used to explore
aspects of quantum field theories in various spacetime dimensions. There are inter-
acting, supersymmetric conformal field theories (SCFTs) in six and lower spacetime
dimensions. We have argued for the a-theorem in six dimensions, by using susy to
connect the conformal a-anomaly to the six-dimensional analog of 't Hooft anom-
alies, for the R-symmetry and gravity. We also use strong constraints on the unitary
representations of the superconformal group to classify supersymmetry preserving
deformations of SCFTs in various spacetime dimensions.

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