

Testing 3d IR Dualities Using Algebraic Geometry

jeudi 30 juin 2022 11:00 (20 minutes)

In this talk I will revisit some well-studied 3d IR dualities including Aharony Duality and that of Giveon-Kutasov. I will also discuss some recently proposed ones and show how one can connect these dualities together. In the second part, I will show how, using algebraic geometry and supersymmetric localization, one can explicitly compute the twisted supersymmetric index on any Riemann surface. One can then test these dualities by matching twisted indices on both sides of the duality. Background Chern-Simons terms play a crucial role in this story.

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