

3d McKay correspondence and 5d SCFTs

Wednesday, December 20, 2023 2:00 PM (50 minutes)

In theoretical physics, a large class of superconformal field theories (SCFTs) can be constructed by putting superstring/M-theory on canonical singularities. In this talk, I'm going to mainly discuss the cases of M-theory on C3 orbifold singularities, which lead to a large class of 5d SCFTs. Many physical properties of the SCFT, such as rank, flavor rank and 1-form symmetry can be read off from 3d McKay correspondence. We have also studied new crepant resolutions of non-abelian C3 orbifolds. The cases of C4 orbifolds will also be shortly mentioned in the end.

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