

Non-unitary modular categories from the Coulomb branch

Tuesday, February 5, 2019 2:00 PM (1 hour)

We propose a new link between the geometry of moduli spaces and the representation theory of vertex operator algebras. The construction goes through a class of four-dimensional quantum field theories that are said to satisfy “property F”. Each such theory gives rise to a family of modular tensor categories, whose algebraic structures are intimately related to the geometry of the Coulomb branch. This is based on joint work with Mykola Dedushenko, Sergei Gukov, Hiraku Nakajima and Ke Ye.

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