

## M5 branes and Theta Functions

*Thursday, 27 June 2019 14:30 (15 minutes)*

We propose quantum states for Little String Theories arising from M5 branes probing A- and D-type singularities. This extends Witten's picture of M5 brane partition functions as theta functions to this more general setup. Compactifying the world-volume of the five-branes on a two-torus, we find that the corresponding theta functions are sections of line bundles over complex 4-tori. This formalism allows us to derive Seiberg-Witten curves for the resulting four-dimensional theories.

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