

Self-dual Strings and 2D SYM

Friday, 15 August 2014 14:00 (1 hour)

We study the system of M2-branes suspended between parallel M5-branes using ABJM model with a natural half-BPS boundary condition. For small separation between M5-branes, the worldvolume theory is shown to reduce to a 2D $N=(4,4)$ super Yang-Mills theory with some similarity to q -deformed Yang-Mills theory. The gauge coupling is related to the position of the branes in an interesting manner. The theory is considerably different from the 2D theory proposed for multiple “M-strings”. We make a detailed comparison of elliptic genus of the two descriptions and find only a partial agreement.

Presenter: HOSOMICHI, Kazuo (Yukawa Institute)