

Seiberg-Witten Theories on Ellipsoids

I will present the exact partition function of Seiberg-Witten theory on 4D ellipsoids which extends the AGT relation to arbitrary value of Liouville coupling. Based on a generalization of Killing spinor equation, I will formulate 4D N=2 SUSY theory on wide class of curved backgrounds. It is shown that 4D ellipsoids have a Killing spinor if a suitable set of auxiliary fields are turned on. I will then explain the computation of partition function and the necessary localization techniques.