

Unitary matrix model with the logarithmic potential

Thursday, 5 December 2019 15:00 (3 hours)

We study the unitary one-matrix model with the logarithmic potential. It has been known that a hermitian one-matrix model with a logarithmic potential yields the prepotential of 4d $N=2$ $SU(2)$ SUSY gauge theory as its large- N free energy. We give a rigorous proof that the unitary matrix model with the potential of the same form as the hermitian matrix model for 4d $N=2$ $N_f=2$ $SU(2)$ SUSY gauge theory yields the identical prepotential of it, although the parameter identifications of each model are slightly different. This result has been anticipated by Itoyama, Oota, and Yano.

Presenter: Mr TASHIRO, Hitomi (SOKENDAI)

Session Classification: Poster