

Meeting PRIN "String Theory as a bridge between Gauge Theories and Quantum Gravity"



Contribution ID: 3

Type: **not specified**

Tracy-Widom distribution in supersymmetric gauge theories

Thursday, 23 February 2023 14:30 (1 hour)

It was recently recognized that various observables in four-dimensional supersymmetric gauge theories can be computed for an arbitrary 't Hooft coupling as determinants of certain semi-infinite matrices. I will show that these quantities can be expressed as Fredholm determinants of the so-called Bessel kernel and they are closely related to celebrated Tracy-Widom distribution (more precisely, its finite temperature generalization) describing level-spacing distributions in matrix model.

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