

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



Contribution ID: 19

Type: **not specified**

Correlators and OPE coefficients in Argyres-Douglas Theories

Thursday, February 22, 2024 4:30 PM (15 minutes)

I will discuss the computation of correlators and observable quantities, in particular OPE coefficients, in Argyres-Douglas theories, that are 4-dimensional $N = 2$ superconformal field theories, intrinsically strongly coupled and without a Lagrangian description. After a quick presentation on these theories and the motivation of this study, I will recall some results for extremal correlators and OPE coefficients derived through localization on the 4-sphere, showing their almost compatibility with the conformal bootstrap method. Then I will pass to discuss the large R-charge limit for the localization results, in order to compare them with the ones obtained through the EFT technique, and in this scenario I will present some new coefficients coming inside the perturbative expansion, showing also consistency with what already known in literature. Finally, I will propose some suggestions in order to make the matching with the results coming from the conformal bootstrap and the EFT methods much better.

Presenter: CIPRIANI, Andrea (Roma Tor Vergata)

Session Classification: Gong Show 1