



Contribution ID: 346

Type: **not specified**

A 3d disordered superconformal fixed point

Tuesday 24 August 2021 13:30 (40 minutes)

We initiate the study of a three dimensional disordered supersymmetric field theory. Specifically, we consider a $N = 2$ large N Wess-Zumino like model with cubic superpotential involving couplings drawn from a Gaussian random ensemble. Taking inspiration from analyses of lower dimensional SYK like models we demonstrate that the theory flows to a strongly coupled superconformal fixed point in the infra-red. In particular, we obtain leading large N spectral data and operator product coefficients at the critical point. Moreover, the analytic control accorded by the model allows us to compare our results against those derived in the conformal bootstrap program and demonstrate consistency with general expectations.

Primary authors: PENG, Cheng; Prof. CHANG, Chi-ming; Prof. RANGAMANIC, Mukund; COLIN-ELLER-INC, Sean

Presenter: PENG, Cheng

Session Classification: New Developments in Quantum Field Theory

Track Classification: New Developments in Quantum Field Theory