Contribution ID: **8**   Type: **not specified**

The Chiral Algebra Program for Four-Dimensional SuperConformal Field Theories

Tuesday 21 August 2018 11:00 (45 minutes)

Any $calN = 2$ $4d$ superconformal field theory (SCFT) contains a subsector isomorphic to a $2d$ chiral algebra, or vertex operator algebra (VOA). The VOA computes a rich class of observables of the SCFT. In the opposite direction, four-dimensional physics expectations lead to interesting mathematical conjectures for VOAs. Most ambitiously, one hopes to use this $4d/2d$ correspondence as on organizing principle for the whole landscape of $calN = 2$ SCFTs. In this talk, I will review the basics of the correspondence and describe some recent progress in characterizing the class of VOAs that descend from $4d$ SCFTs. The new insight is the VOA is intimately related to the low energy effective field theory on the Higgs branch of the $4d$ theory.

Summary

Presenter: RASTELLI, Leonardo