



Contribution ID: 9

Type: **not specified**

Generalized Global Symmetries

Monday, 13 April 2015 14:20 (40 minutes)

We will discuss in a systematic way a generalization of ordinary global symmetries, whose charged operators are line operators, surface operators, etc., and whose charged excitations are strings, membranes, etc. Many of the properties of ordinary global symmetries apply here. They lead to Ward identities and hence to selection rules on amplitudes. Such global symmetries can be coupled to classical background fields and they can be gauged by summing over these classical fields. These generalized global symmetries can be spontaneously broken (either completely or to a subgroup). They can also have 't Hooft anomalies, which prevent us from gauging them, but lead to 't Hooft anomaly matching conditions. Such anomalies can also lead to anomaly inflow on various defects and exotic Symmetry Protected Topological phases. Our analysis of these symmetries gives a new unified perspective of many known phenomena and uncovers new results.

Presenter: SEIBERG, Nathan

Session Classification: Afternoon session