

Contribution ID: 59

Type: not specified

The Branes Behind Generalized Symmetry Operators

Tuesday 4 July 2023 14:15 (15 minutes)

By now it is well-known that the global symmetries of a quantum field theory (QFT) can be recast as the existence of certain extended topological operators. This reformulation has produced much progress in expanding the notion of symmetry, culminating in so-called categorical or generalized global symmetries. We review a systematic, non-Lagrangian construction of such symmetry operators for QFTs admitting an embedding into string theory. We argue that such symmetry operators can be constructed by wrapping (flux)branes on asymptotic cycles "at infinity" of the internal dimensions. In many cases the resulting symmetry operators exhibit non-invertible fusion laws and can be used to obtain insights into strongly-coupled physical phenomena.

Presenter: HUEBNER, Max Session Classification: Parallel