



ID de Contribution: 40

Type: Non spécifié

Hidden symmetry in 4d $\mathcal{N}=2$ quiver gauge theory

In this talk we will illustrate how *quasi-Hopf algebras* can provide a more flexible and powerful treatment of continuous symmetries than the usual Lie groups and the associated Lie algebras. As an example, we will study the global symmetry of 4d $\mathcal{N} = 2$ superconformal quiver gauge theory, which can be obtained from the orbifold projection of the $\mathcal{N} = 4$ super-Yang-Mills theory by making an exactly marginal deformation. The superconformal symmetry of the parent $\mathcal{N} = 4$ super-Yang-Mills theory is characterized by the Lie superalgebra $psu(2, 2|4)$, which seems to be broken to $u(2, 2|2)$ in the $\mathcal{N} = 2$ quiver gauge theory. We will show that the broken generators can be upgraded to quantum generators. As a result, the $\mathcal{N} = 2$ quiver gauge theory in fact has the full $\mathcal{N} = 4$ superconformal symmetry, albeit in a quantum deformed way.

Type of contribution

Contributed Talk or Poster

Auteur: ZHANG, Xinyu (DESY)

Co-auteurs: Prof. POMONI, Elli (DESY); M. ANDRIOLO, Enrico (Queen Mary University of London); M. BERTLE, Hanno (DESY); Prof. ZOUBOS, Konstantinos (University of Pretoria)

Orateur: ZHANG, Xinyu (DESY)

Classification de Session: Posters

Classification de thématique: Posters