



Contribution ID : 20

Type : Contributed talk

Aspects of perturbativity, vacuum stability and inflation in the light of recent diphoton excess

Tuesday, 24 May 2016 16:20 (20)

The recent observation of the 750 GeV diphoton excess at 13 TeV LHC has motivated many scenarios of physics beyond the Standard Model. In this talk, we will discuss the observation that many models which explain the observed excess tend to get strongly coupled well below the Planck scale. We will then present the possibility of simple BSM scenario involving colored vector-like fermions with exotic charges, which is expected to stay weakly coupled till the Planck scale and also explain the diphoton excess. Further, we will discuss issues related to vacuum stability and the possibility of inflation in such scenario. Finally, we will also discuss phenomenology of exotic vector-like fermions.

Primary author(s) : DHURIA, Mansi (Physical Research Laboratory, Ahmedabad)

Co-author(s) : Dr. GOSWAMI, Gaurav (Ahmedabad University, India)

Presenter(s) : DHURIA, Mansi (Physical Research Laboratory, Ahmedabad)

Session Classification : Cosmo 2

Track Classification : Astro/Cosmo/Neutrinos