



Contribution ID: 109

Type: **not specified**

Higgs/top factory and Planck physics

We argue that if the LHC confirms that the properties of the recently discovered boson with the mass 124-126 GeV coincide with those of the Higgs boson of the Standard Model, and finds nothing else, a next step in high energy experimental physics should be the construction of an electron-positron or muon collider with a center of mass energy 200+200 GeV (Higgs and t-quark factory). This would be decisive for setting up the question about the necessity for a new energy scale besides the two ones already known - the Fermi and the Planck scales. In addition, this will allow to study in detail the properties of the two heaviest particles of the Standard Model, potentially most sensitive to any types on new physics.

Primary authors: Prof. KNEIHL, Bernd (University of Hamburg); Prof. BEZRUKOV, Fedor (University of Connecticut); Dr KALMYKOV, Mikhail (University of Hamburg); Prof. SHAPOSHNIKOV, Mikhail (EPFL)