Contribution ID: 120

Type: not specified

An asymptotically safe link between the Planck scale and the eletroweak scale

Thursday 24 May 2018 14:00 (20 minutes)

I will discuss the asymptotic-safety paradigm as a framework for model of quantum gravity and matter at and beyond the Planck scale. I will highlight indications for the theoretical viability of this scenario and discuss how in this setting, Planck-scale physics could lead to testable consequences at the electroweak scale. In particular, the asymptotic-safety paradigm could have a higher predictive power than the Standard Model, and thus the values of free parameters of the Standard Model, such as, e.g., the values of gauge couplings, the Higgs mass, as well as Yukawa couplings, could be fixed uniquely by demanding asymptotic safety at the Planck scale.

Presenter: EICHHORN, Astrid

Session Classification: Parallel Session on Gravity and Quantum Effects