Dark Radiation predictions from general Large Volume Scenarios

Thursday 29 May 2014 15:30 (20 minutes)

The existence of Dark Radiation is a generic prediction of the Large Volume Scenario (LVS), a popular scheme of moduli stabilisation in type IIB string theory. Consequently, measurements of the amount of Dark Radiation put stringent constraints on models based on the LVS.

In this talk I will quantify predictions for Dark Radiation for a wide range of LVS models. In particular, I will show that some of the most natural LVS settings with natural values of model parameters lead to Dark Radiation predictions just below the present observational bounds. Barring a discovery, rather modest improvements of present Dark Radiation limits can rule out many of these most simple and generic variants of the LVS.

Author: Dr WITKOWSKI, Lukas (Heidelberg University)Presenter: Dr WITKOWSKI, Lukas (Heidelberg University)Session Classification: Formal

Track Classification: String Theory