



Contribution ID: 22

Type: **not specified**

## Towards a non-perturbative description of inflation

*Tuesday, 27 June 2023 14:50 (20 minutes)*

In recent years, primordial black holes (PBHs), i.e. black holes produced in the very early universe, have attracted much attention because of their important cosmological consequences. One of the mechanisms that can produce PBHs is the collapse of superhorizon large density inhomogeneities whenever they enter the horizon. These large inhomogeneities can be generated during inflation, reason why a non-perturbative (in terms of the amplitude of the inhomogeneities) description of inflation is of crucial importance in order to correctly describe the abundance of PBHs. In this talk I will explore some of the attempts to achieve such a non-perturbative description of inflation such as the  $\delta N$  or stochastic formalism and their difficulties.

**Presenter:** CRUCES, Diego (ICCUB)

**Session Classification:** Selected Talks