

The Higgs portal and the early Universe

Higgs portal interactions provide a simple mechanism for addressing two open problems in cosmology: dark matter and the baryon asymmetry. In the latter instance, Higgs portal interactions may contain the ingredients for a strong first order electroweak phase transition as well as new CP-violating interactions as needed for electroweak baryogenesis. These interactions may also allow for a viable dark matter candidate. We survey the opportunities for probing the Higgs portal as it relates to these questions in cosmology at the LHC and possible future colliders.

I intend to submit my contribution for the proceedings

No

Primary author: SPANNOWSKY, Michael (IPPP Durham)

Presenter: SPANNOWSKY, Michael (IPPP Durham)