

The Holographic QCD axion (F)

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A holographic model of QCD axion is presented. It describes a composite axion in the KSVZ class. Having a gravity dual, based on the Witten-Sakai-Sugimoto model, it is calculable in the strongly coupled regime and its UV completion is under control. Its basic properties are derived, including the low energy Lagrangian, from which the axion couplings to nucleons can be derived. Basic features in the deconfined phase are studied as well. In particular, the temperature dependence of the axion mass is extracted from the topological susceptibility.

Summary

Primary author: BIGAZZI, Francesco (INFN Firenze)

Presenter: BIGAZZI, Francesco (INFN Firenze)

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