

Contribution ID: 34

Type: **not specified**

Lighter QCD Axion

Friday, July 7, 2023 10:00 AM (45 minutes)

We propose a model to realize the lighter QCD axion. Exploiting the mirror sector, the minimum position of the total potential is still at origin which does not spoil the solution to the strong CP problem. The axion mass can be reduced by tuning the amplitude of the potential from the mirror sector. There are interesting phenomenology during the cosmological evolution history. The parameter space to produce the correct dark matter relic abundance can be probed in the future experiments.

Primary author: LYU, Kunfeng (University of Minnesota)

Co-authors: CO, Raymond (University of Minnesota); Prof. GHERGHETTA, Tony (University of Minnesota); Mr LIU, Zhen (University of Minnesota)

Presenter: LYU, Kunfeng (University of Minnesota)