Contribution ID: **97** Type: **Talk**

Axion Dark Matter Search Results of CAST-CAPP

Wednesday, August 25, 2021 12:00 PM (30 minutes)

CERN Axion Solar Telescope (CAST), an helioscope since 20 years searching for solar axion, has recently evolved into an haloscope exploring the dark matter axion using resonant microwave cavities. CAST-CAPP is a subdetector mounted in the bore of CAST magnet, consisting of 4 individual cavities that can be phase-matched. Phase-matching is a novel technique in the axion community that help increase signal SNR, especially needed when probing higher axion masses to compensate the decreasing cavity volume. In this talk, we will give an account of the latest results where CAST-CAPP improves the existing axion-photon coupling limit by more than an order of magnitude in range of 19.7 –22.4 μeV axion mass."

Is this abstract from experiment?

Yes

Name of experiment and experimental site

CERN Axion Solar Telescope (CAST)

Is the speaker for that presentation defined?

Yes

Details

Kaan Özbozduman, PhD student, Bogazici University, Istanbul, Turkey, http://www.boun.edu.tr/en-US/Index

Internet talk

Maybe

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Session Classification: D Cosmology, Astrophysics, Gravity, Mathematical Physics