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Update on dark matter searches using NaI from the COSINE-100 experiment

Thursday 22 September 2022 10:50 (20 minutes)

COSINE-100 is a NaI dark matter detection experiment located at the Yangyang Underground Laboratory in South Korea, designed with the main goal of testing the controversial, positive dark matter signal from the DAMA experiments using the same target material. COSINE-100 has been operational for almost six years and in that time has been the first NaI experiment to exclude the DAMA signal in certain dark matter models, as well as publishing multiple annual modulation search results which provide a model-independent check on the DAMA signal. This talk, an overview of the COSINE-100 detector will be given, with particular focus on recent and upcoming results, including newly published three years of annual modulation search data, an investigation of DAMA's analysis method using COSINE-100 data, and upcoming searches with five years of annual modulation data.

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