



Contribution ID: 57

Type: **Oral presentation**

Dark matter searches at BESIII

Thursday 12 October 2023 11:00 (20 minutes)

The standard Model describes well the ordinary matter, but it fails to accommodate recent experimental anomalies, such as dark matter. Dark matter is inferred by the gravitational effect only, and its nature is a mystery. Dark matter may couple to the ordinary matter via portals. The corresponding particles could be light Higgs and dark bosons, axion-like particles and spin-1/2 fermion. These particles can be accessible by high-intensity electron-positron collider experiments, such as the BESIII experiment, if the masses of these particles are up to the level of a few GeV. BESIII has recently explored the possibility of light Higgs boson, dark photon, axion-like particles and various flavors of light dark matter particles using the data samples collected in the tau-charm region. This report will summarize the recent results of the BESIII related to dark matter searches.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

BESIII Experimental located at IHEP, Beijing, China

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

Yes

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Session Classification: Parallel Session 4

Track Classification: High Energy Particle Physics