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Indirect search for dark matter with the 750 GeV diphoton resonance

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Identifying the resonance as the pseudo-scalar mediator between the standard model sector and dark matter sector, we could obtain profound implications to dark matter phenomenology from collider physics.

In this work, we first find the preferred parameter region of the proposed model using the results of the LHC run at 13 TeV.

Next, we investigate the indirect signature of dark matter taking into account the data from various cosmic-ray searches including Fermi-LAT, HESS, and CTA.

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