

## ISAPP 2024: Particle Candidates for Dark Matter



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# ALPs searches on galactic sources using the HAWC Observatory

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Axion-Like Particles (ALPs) are pseudo-scalar bosons that generalize the concept of QCD Axion and arise from models Beyond the Standard Model (BSM). Under certain conditions ALPs can mix with photons in regions with magnetic fields. Photons from very high energy (VHE) galactic sources can mix with ALPs, which would produce an attenuation in the spectrum of the source. In this work we study the VHE source 3HWC J1908+03 and the hypothetical anomalies on its spectrum due to photon-ALP conversions. We obtained an exclusion region of ALPs using the HAWC data.

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**Session Classification:** Flash Talks by Students