

Experimental Searches for Invisible Axions

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Motivated by theories beyond the standard model and/or astrophysical anomalies, axions and axion-like particles (or more generically weakly interacting slim particles) have received growing attention as candidates for addressing some fundamental questions in physics. There has been a tremendous effort to find hints of these hypothetical particles, with recent experimental searches starting to reach theoretically interesting levels of sensitivity. Continuous endeavors have also been made not only to enhance sensitivity by involving state-of-the-art technologies, but also to expand the search range by devising various methods according to the target mass. These orthogonal approaches will enable us to explore most of the parameter space within the next few decades in anticipation of answers to those fundamental questions. This talk reviews the current status of the search programs and discusses the future prospects.

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