19th Patras Workshop on Axions, WIMPs and WISPs



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Nonstandard Uses for Axion Haloscopes

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Axion haloscopes are powerfully sensitive tools designed explicitly to search for cold axion dark matter. Uniformly distributed dark matter axions are expected to produce a constant signal in a haloscope, but there is the potential to search for transient signals as well. I will discuss ideas in searches for nonstandard astrophysical axion sources, as well as non-axion signals such as gravitation. For some of these, searches are being performed in existing data, others require modifications of future axion experiments to execute, and some end up being fundamentally misaligned with haloscope design and require a completely different design.

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