

Neutrino and Axion Astronomy with Dark Matter Experiments

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Beyond their unprecedented sensitivity to dark matter (DM), as I will demonstrate, large direct detection experiments constitute impressive neutrino telescopes. This opens a new window into astronomy, leading to possible insights into major problems such as the origin of supermassive black holes. Furthermore, DM experiments can be exploited as novel tools in multi-messenger astronomy for exploration of new physics. I will discuss detection of relativistic axions from transient astrophysical sources (e.g. axion star explosions), which can lead to new insights into the fundamental axion potential.

Reference to paper (DOI or arXiv)

Your gender (free text)

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