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71 - Multi-Bubble Reconstruction in PICO Bubble Chambers

Tuesday 4 June 2019 17:08 (2 minutes)

Dark matter signals are expected to be observed in PICO as single bubbles uniformly distributed within the chamber volume, and so far no dark matter candidates have been detected. During the collection of neutron calibration data, what is observed in the PICO chambers are recorded single bubble events that look exactly like the expected dark matter signals, in addition to a dominant presence of multi-bubble events produced by the test source. These events can be used to understand the sources of backgrounds the detectors are sensitive too, and when fully reconstructed they provide information on the chambers efficiency. This talk will show the progress towards the optical reconstruction of multi-bubble events in the PICO 60 bubble chamber.

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