



UNIVERSITY OF MIAMI
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New Semiconductor Devices for Dark Matter Detection

Abstract

Dark matter remains a fundamental mystery in particle physics, and extensive efforts have been made to detect it in labs. In this talk, I will summarize the recent progress in sub-GeV dark matter detection with semiconductors. I will discuss the origin of the unexplored backgrounds in current detectors and demonstrate our new proposed device, called Dual-sided CCD, can significantly reduce some those backgrounds.