

Bjoern Penning – HEP Seminar 10/22/2019
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Title: *Searching for Dark Matter from the Lowest to the Highest Energies*

Abstract: Dark Matter (DM) is a long standing puzzle in fundamental physics and goal of a diverse research program. In underground experiments we search for DM directly using lowest possible energy thresholds, at collider we seek to produce dark matter at the very highest energies, and using telescopes we look for telltale signatures in the cosmos. All these detection methods probe different parts of the possible parameter space. I will highlight status of existing and upcoming experiments including new direct detection experiments with world leading sensitivities to start data taking in early 2020. Finally we'll discuss how to connect these approaches and how an interdisciplinary program bridging experimental frontiers can provide the most stringent constraints.