

# Right Time, Right Place: a Comparative Analysis of DEAP-3600's Position Reconstruction Algorithms

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DEAP-3600 is a highly sensitive spherical direct-detection dark matter experiment. Scintillation light detected following subatomic particle interactions with liquid argon is used to classify events in the search for Weakly Interacting Massive Particles (WIMPs). As part of this classification, position reconstruction algorithms aim to pinpoint where the interaction took place. In this report, the performance of a new artificial intelligence algorithm is compared with DEAP-3600's existing algorithms for position reconstruction.

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