

## Status of the DEAP-3600 experiment

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DEAP-3600 is a single-phase liquid argon (LAr) dark matter detector operating 2 km underground at SNOLAB in Sudbury, Canada. The detector consists of 3.3 tonnes of LAr in a spherical acrylic vessel viewed by an array of 255 photomultiplier tubes. DEAP-3600 has been taking data stably since November 2016. DEAP-3600 is sensitive to nuclear recoils from dark matter particles, which cause the emission of prompt scintillation light. While DEAP-3600 demonstrated excellent performance and holds the leading WIMP exclusion among LAr detectors, its sensitivity is limited by backgrounds induced by alpha activity at the LAr inlet, in a shadowed region of detector. The upcoming hardware upgrade of the detector aims at fixing that limitation and, in consequence, at reaching the full WIMP sensitivity. This talk presents the latest results from DEAP-3600, the status of the ongoing physics analyses, as well as of the hardware upgrade. Plans for the following physics run will also be discussed.

### Reference to paper (DOI or arXiv)

### Your gender (free text)

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