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## Solar neutrino absorption in DEAP-3600: A new chapter for argon dark matter detectors

The Dark matter Experiment using Argon Pulseshape discrimination (DEAP-3600) is a leading single-phase liquid argon experiment located 2 km underground at SNOLAB. The experiment was designed and optimized for sensitivity to nuclear recoils produced by WIMP dark matter through careful material screening, immense overburden, passive shielding, and careful analysis methods. Many of these properties also make DEAP-3600 well-suited to detect MeV-scale charged-current interactions from  $^8\text{B}$  solar neutrinos. To that end, DEAP-3600 has recently produced the first measurement of low-energy charged-current interactions on  $^{40}\text{Ar}$ , which have eluded detection since 1986. In an exposure of  $(7.29 \pm 0.05)$  tonne-years, 6 events in the signal region of interest were observed against an expectation of 2.3 signal events and 0.48 background events. The energy-averaged cross section was measured as  $(4.0^{+2.0}_{-1.6} \text{ (stat)}^{+0.8}_{-0.7} \text{ (sys)}) \times 10^{-41} \text{ cm}^2$ , which is larger than the most recent data-driven predictions.

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