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## **(G\*) Search for solar neutrino absorption with $^{40}\text{Ar}$ in DEAP-3600**

*Wednesday 21 June 2023 16:15 (15 minutes)*

The DEAP-3600 experiment is a single-phase liquid argon dark matter experiment that uses scintillation light to look for weakly interacting massive particles (WIMPs). In addition to the dark matter search, the detector's properties including low background and argon medium make it a good candidate for a first observation of 8B solar neutrino charged-current interactions on  $^{40}\text{Ar}$ . Solar neutrinos with sufficient energy, like 8B neutrinos, interacting with  $^{40}\text{Ar}$  may produce an excited state of  $^{40}\text{K}$  that will deexcite in a series of gamma rays. We present an overview of the ongoing solar neutrino absorption study in DEAP-3600 with a discussion of the analysis strategy.

### **Keyword-1**

DEAP-3600

### **Keyword-2**

neutrino

### **Keyword-3**

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