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The MiniCLEAN Single-Phase Noble Liquid Dark Matter Experiment MICHAEL RONQUEST, Los Alamos National Lab, DEAP/CLEAN COLLABORATION — MiniCLEAN is a single-phase WIMP dark matter experiment which observes scintillation light from a 150kg fiducial mass liquid argon target. This detector design strategy emphasizes scalability to target masses of order 10 tons or more. The liquid noble target is observed by a sphere of 92 photomultiplier tubes; the projected light yield is >5 photo-electrons per keV. The high light yield allows pulse shape discrimination to separate the electron background from a WIMP-induced nuclear recoil signal. MiniCLEAN is also designed for a liquid neon target, which in the event of a positive signal will provide a unique test of the expected A squared dependence of the WIMP interaction rate. This talk will review the experimental technique and current status of MiniCLEAN.

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