

Abstract Submitted
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Kimballton Underground Research Facility S. DEREK ROUNTREE, R. BRUCE VOGELAAR, Virginia Tech — A new deep underground research facility is open and operating only 30 minutes from the Virginia Tech campus. It is located in an operating limestone mine, and has drive-in access (eg: roll-back truck, motor coach), over 50 miles of drifts (all 40' x 20+'; the current lab is 35' x 22' x 100'), and is located where there is a 1700' overburden. The laboratory was built in 2007 and offers fiber optic internet, LN2, 480/220/110 V power, ample water, filtered air, 55 F constant temp, low Rn levels, low rock background activity, and a muon flux of only ~ 0.004 muons per square meter, per second, per steradian. There are currently six projects using the facility: mini-LENS - Low Energy Neutrino Spectroscopy (Virginia Tech, Louisiana State University, BNL); Neutron Spectrometer (University of Maryland, NIST); Double Beta Decay to Excited States (Duke University); HPGe Low-Background Screening (North Carolina State University, University of North Carolina, Virginia Tech); MALBEK - Majorana neutrinoless double beta decay (University of North Carolina); Ar-39 Depleted Argon (Princeton University). I will summarize the current program and exciting potential for the future.

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