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First results from the LUX dark matter experiment at the Sanford Underground Research Facility

he LUX (Large Underground Xenon) experiment aims at the direct detection of dark matter particles via their collisions with xenon nuclei. The 350 kg twophase dual-phase xenon time-projection chamber operating at the Sanford Underground Research Facility (Lead, South Dakota), was cooled and filled in February 2013. Results of the first WIMP search dataset, taken during the period April to August 2013, corresponding to 85.3 live-days of data with a fiducial volume of 118 kg, are presented.