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High field magnetization of Half-Heusler compound LuPdBi BEN-JAMIN LAWSON, GANG LI, COLIN TINSMAN, FAN YU, TOMOYA ASABA, Univ of Michigan - Ann Arbor, XIANGFENG WANG, JOHNPIERRE PAGLIONE, University of Maryland, LU LI, Univ of Michigan - Ann Arbor — Topological insulators and topological superconductors are a novel phases of matter that have been an area of rich new physics in recent years. Half-Heusler compound LuPdBi has been suggested to have a topologically nontrivial phase by theoretical calculations and has been shown to have superconductivity and weak antilocalization in magneto-transport measurements. Given the promise of this compound, we preformed and report here preliminary results of magnetization measurements in LuPdBi at high magnetic fields up to 45T.