Development of a 3D-Printed Collimated $^{90}$Sr Beta Source\textsuperscript{1} BY-RON DANIEL, Yale Univ, NUDOT COLLABORATION — Collimated beta particle sources based on $^{90}$Sr are common calibration sources for atomic decay detector research and development. Due to the short attenuation length of beta particles in matter, the exact geometry of a collimator can drastically change the rate and energy of beta particles exiting the source. 3D printing allows for the quick and easy prototyping of collimators with custom geometries. I will describe the development of a collimator that interfaces directly to a quartz cuvette for the characterization of liquid scintillator cocktails. Future work will include developing a source for the NuDot detector which aims to reconstruct MeV electrons using the separation of Cherenkov and scintillation light.

\textsuperscript{1}MIT Summer Research Program