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Modeling Hadronic Showers in MINERvA JUAN PABLO VE-LASQUEZ, Pontificia Universidad Catolica del Peru, Lima, Peru, MINERVA COL-LABORATION — The MINER $\nu$ A Test Beam (TB) detector took data in a low energy test beam at Fermilab with particle energies from 400 MeV to 1.2 GeV. These data will be used to calibrate the MINER $\nu$ A neutrino detector. One of the goals of this work is to characterize the length and radius of the hadronic showers produced in the TB data, important for the MINER $\nu$ A DIS studies. Within the same study, we will perform a comparison of these hadronic showers with the different hadronic models available in GEANT4. The status of this study will be presented.

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