Study of the $\pi^0\pi^0$system in π^-p interactions at 18 GeV/c

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Abstract

The reaction $\pi^- p \to n\pi^0\pi^0$ at 18 GeV/c is studied using a 3000 element lead glass calorimeter in AGS Experiment E-852. These data provide a high-statistics look at the interesting mass region from threshold up to 2.5 GeV/c^2, including the $f_0(980)$ and $f_2(1270)$ resonances. We present both the production and decay characteristics of the resonance structure in this mass region.