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Analysis of the $\eta\pi^0$ system produced in $\pi^- p$ interactions at 18 GeV/c[1] ROB LINDENBUSCH, *Indiana University, Bloomington for the E852 Collaboration (Brookhaven, Indiana, IHEP Protvino, Massachusetts Dartmouth, Moscow State, Northwestern, Notre Dame, Rensselaer)* — The reaction $\pi^- p \rightarrow \eta\pi^0 n$ is being studied at 18 GeV. 46,000 events with both $\eta \rightarrow \gamma\gamma$ and $\eta \rightarrow \pi^+\pi^-\pi^0$ from the 1994 E852 run have been analyzed. The ability to study all-neutral as well as charged + neutral final states for the same reaction provides an increased understanding of systematic errors. The $a_0(980)$ is observed with an unusually steep t-distribution, indicating a potential non-q$\bar{\text{q}}$ contribution. There also has been much controversy about the presence of a $J^{PC} = 1^{-+}$ exotic at 1400 MeV. A partial wave analysis of the data is presented.

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[X] Prefer Oral Session
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Alex Dzierba
alex@dustbunny.physics.indiana.edu
Indiana University, Bloomington

Special instructions: One of nine E852 abstracts to be presented sequentially if possible.

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