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Analysis of the $f_1\pi^-$ system produced in $\pi^- p$ interactions at 18 GeV/c[1] TODD ADAMS, *University of Notre Dame for the E852 Collaboration (Brookhaven, Indiana, IHEP Protvino, Massachusetts Dartmouth, Moscow State, Northwestern, Notre Dame, Rensselaer)* — The reaction $\pi^- p \to f_1(1285)/\eta(1295)\pi^- p \to \eta\pi^+\pi^-\pi^- p$ is being studied at 18 GeV. The $f_1\pi^-$ system is expected to be an important decay mode for a hybrid meson and a previous experiment (BNL E818) has shown some evidence for such a state. In our data, a clear peak is observed in the $\eta\pi^+\pi^-$ spectrum in the $f_1(1285)/\eta(1295)$ region. Events in this region also show strong evidence for production of events with $a_0(980) \to \eta\pi$. The number of events found is an order of magnitude greater than E818. A partial wave analysis of the data is presented.

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[X] Prefer Oral Session
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Special instructions: One of nine E852 abstracts to be presented sequentially if possible.

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