Abstract Submitted
for the APR96 Meeting of
The American Physical Society

Sorting Category: M.4

Partial wave analysis of the $\eta\pi^-$ system for the reaction $\pi^- p \to \eta\pi^- p$ at 18 GeV/c[1] DAVID R. THOMPSON, *University of Notre Dame for the E852 Collaboration (Brookhaven, Indiana, IHEP Protvino, Massachusetts Dartmouth, Moscow State, Northwestern, Notre Dame, Rensselaer)* — A partial wave analysis has been performed on some 213,000 $\eta\pi^-$ events (by far the largest analyzed sample to date). This system is of particular interest because of the possible presence of an exotic ($J^{PC} = 1^{-+}$) resonance interfering with the $a_2(1320)$. This hypothesis is strengthened by the observation of a clear forward-backward asymmetry in $cos\theta_{GJ}$, indicating interference between odd and even waves. Results of the full analysis will be presented.

[1]Work supported in part by the Department of Energy and the National Science Foundation.

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

Date submitted: January 23, 1996

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