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Partial wave analysis of the $\eta^{'}\pi^{-}$ system for the reaction $\pi^{-}p \rightarrow \eta^{'}\pi^{-}p$ at 18 GeV/c[1] D.L. STIENIKE, *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 5,000 $\pi^{-}\eta^{'}$ events taken during the 1994 run of E852 at BNL. A clear forward-backward asymmetry in $cos\theta_{GJ}$ has been observed, indicating interference between odd and even waves. There has been much controversy about the presence of a $J^{PC} = 1^{-+}$ wave in $\pi^{o}\eta$ and $\pi^{-}\eta$ systems. If an exotic hybrid exists in either of those two systems, an understanding of the $\pi^{-}\eta^{'}$ system will be very useful in understanding the nature of this exotic. A complete partial wave analysis will be 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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