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Study of the $\omega\pi$ system in the reaction $\pi^- p \rightarrow \omega\pi^- p$ at 18 GeV/c. G. S. ADAMS, J. KUHN, J. NAPOLITANO, M. NOZAR, J. A. SMITH, D. B. WHITE, M. WITKOWSKI, *R. P. I.*, S. U. CHUNG, R. W. HACKENBURG, C. OLCHANSKI, D. P. WEYGAND, H. J. WILLUTZKI, *B. N. L.*, B. B. BRABSON, R. R. CRITTENDEN, A. R. DZIERBA, J. GUNTER, R. LINDENBUSCH, D. R. RUST, E. SCOTT, P. T. SMITH, T. SULANKE, S. TEIGE, *Indiana*, S. DENISOV, A. DUSHKIN, V. KOCHETKOV, I. SHEIN, A. SOLDATOV, *IHEP Protvino*, Z. BAR-YAM, J. P. CUMMINGS, J. P. DOWD, P. EUGENIO, M. HAYEK, W. KERN, E. KING, *Massachusetts Dartmouth*, E. V. ANOSHINA, V.A. BODYAGIN, A. M. GRIBUSHIN, O. L. KODOLOVA, V. L. KOROTKIKH, M. A. KOSTIN, A. I. OSTROVIDOV, L. I. SARYCHEVA, N. B. SINEV, I. N. VARDANYAN, A. A. YESHOV, *Moscow State*, D. S. BROWN, T. K. PEDLAR, K. K. SETH, J. WISE, D. ZHAO, *Northwestern*, T. ADAMS, J. M. BISHOP, N. M. CASON, J. M. LOSECCO, J. J. MANAK, A. H. SANJARI, W. D. SHEPHARD, D. L. STIENIKE, S. A. TAEGAR, D. R. THOMPSON, *Notre Dame* — A partial wave analysis of the $\omega\pi^-$ system, where $\omega \rightarrow \pi^+\pi^-\pi^0$ is presented. This study is based on 13000 $\omega\pi^-$ events from the data collected in the 1994 run of E852 at the MPS facility of BNL. It is observed that $\rho_3(1690)$ is produced mostly in the low momentum transfer squared ($|t| < 0.13(GeV)^2$), while $b_1(1235)$ is produced at all t, ($0 < |t| < 2(GeV)^2$). The motivation behind this study is to identify all states contributing to the $\omega\pi^\mp$ system, which is necessary in a rigorous spin parity analysis of the $\omega\pi^-\pi^+$, aimed at exotic final states in the $b1^\pm\pi^\mp$ system. This is a favored channel for hybrid meson decays.[1]

[X] Prefer Oral Session
[ ] Prefer Poster Session

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[1](N. Isgur, R. Kokoski, and J. Paton, Phys.Rev.Lett. 54(1985)869)

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