THE REACTION $\bar{p}p \rightarrow 2\pi^- 2\pi^+$ AT INTERMEDIATE ENERGIES

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Systematic features of the channel $\bar{p}p \rightarrow 2\pi^- 2\pi^+$ are examined in the antiproton momentum range 2.5 to 4.6 GeV/c. It is found that as the antiproton momentum increases, exchange effects become increasingly important and a "leading pion" emerges. This pion leaves a "cluster" of three pions which preferentially decays to a pion plus a two-pion resonance ($\rho$, $f$, $g$ mesons). The cluster is found to possess relatively weak internal directional properties. Both the leading pion and the pions in the cluster possess high transverse momenta.

Details are given in a paper submitted to Nuclear Physics B.

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