

# Method for Describing the Production of Three Mesons in Proton–Antiproton Annihilation in Flight

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**Abstract**—The method of operator-product expansion has been developed for describing proton–antiproton annihilation in flight into three mesons. This method has been used to construct the amplitudes for the reactions  $p\bar{p} \rightarrow 3\pi^0$  and  $p\bar{p} \rightarrow \eta\eta\pi^0$ . The method has been tested by applying it to the reaction  $p\bar{p} \rightarrow 3\pi^0$  at an incident-antiproton momentum of 1940 MeV/ $c$ .