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Study of e^+e^- annihilation processes into 6 and 7 pion final states

Wednesday 29 July 2020 20:15 (15 minutes)

The measurement of exclusive e^+e^- to hadrons processes is a significant part of the physics program of $BABAR$ experiment, aimed to improve the calculation of the hadronic contribution to the muon $g—2$ and to study the intermediate dynamics of the processes. We present the most recent results obtained by using the full data set of about 470 fb^{-1} collected by the BABAR detector at the PEP-II e^+e^- collider at a center-of-mass energy of about 10.6 GeV.
In particular, we report the results on e^+e^- annihilation into six- and seven-pion final states. The study of the very rich dynamics of these processes can help to understand the observed difference between the QCD prediction and the sum of exclusive cross sections in the energy region around 2 GeV, thus improving the precision on the total hadronic cross section measurement and of the g-2 calculation.

I read the instructions

Secondary track (number)

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