

Measurement of hadronic cross sections with the BABAR detector

Friday 6 July 2018 11:00 (15 minutes)

A program of measuring the light hadrons production in exclusive $e^+e^- \rightarrow \text{hadrons}$ processes is in place at BABAR, with the aim to improve the calculation of the hadronic contribution to the muon $g - 2$. We present the most recent results obtained by using the full data set of about 470 fb^{-1} collected by the BABAR experiment 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 the channels $e^+e^- \rightarrow \pi^+\pi^-\pi^0\pi^0$, $e^+e^- \rightarrow \pi^+\pi^-\eta$, $K_S^0 K^+\pi^-\pi^0$, $\bar{K}^0 K^0\pi^0$, $\bar{K}^0 K^0\pi^0\pi^0$, and $\bar{K}^0 K^0\eta$.

The first reaction is the main source of uncertainty on the total hadronic cross section in the energy region between 1 and 2 GeV, while the other processes, together with previous BABAR results, complete the studies of the final states with two neutral or charged kaons.

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Session Classification: Strong Interactions and Hadron Physics

Track Classification: Strong Interactions and Hadron Physics