

Study of $e^+e^- \rightarrow e^+e^-\eta'$ in the double-tag mode at BABAR

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We present a study of the process $e^+e^- \rightarrow e^+e^-\eta'$ in the double-tag mode and a measurement for the first time of the $\gamma^*\gamma^* \rightarrow \eta'$ transition form factor $F_{\eta'}(Q_1^2, Q_2^2)$ in the momentum-transfer range $2 < Q_1^2, Q_2^2 < 60$ GeV². The results for the form factor are compared with the predictions based on pQCD and VMD.

We also present our most recent results on measurement of exclusive hadronic cross sections which are the experimental input to the calculation of the muon $g - 2$. In particular, we report the results on e^+e^- annihilation into six- and seven-pion final states, with the study of the very rich dynamics of these processes.

The analysis is based on data with an integrated luminosity 469 fb^{-1} collected at the PEP-II e^+e^- collider with the BABAR detector at center-of-mass energies near 10.6 GeV.

Collaboration

BABAR

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