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Measurement of exclusive hadronic cross sections and implications on the $g-2$ of the muon with the BABAR detector

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The BABAR Collaboration has an intensive program studying hadronic cross sections in low-energy e^+e^- annihilations, accessible via initial-state radiation.

Our measurements allow significant improvements in the precision of the predicted value of the muon anomalous magnetic moment.

These improvements are necessary for shedding light on the current ~ 3 sigma difference between the predicted and the experimental values.

We have published results on a number of processes with two to six hadrons in the final state, and other final states are currently under investigation.

We report here on the most recent results obtained by analysing the entire BABAR dataset, in particular the measurement of the $e^+e^- \rightarrow \pi^+\pi^-\pi^0\pi^0$, which is one of the least known contribution to the cross section in the energy region between 1 and 2 GeV.

We also present the measurement of the $\pi^+\pi^-\eta$, and of the full set of final states with two kaons and two pions.

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