

Hadron production in e^+e^- annihilation at BaBar, and implication for the muon anomalous magnetic moment.

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The BABAR Collaboration has an intensive program of studying hadronic cross sections at low-energy e^+e^- collisions, accessible at BaBar 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 ~ 3.5 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. We report here the results of recent studies with the final states that constitute the main contribution to the hadronic cross section in the energy region between 1 and 3 GeV, as $e^+e^- \rightarrow K^+K^-$, $K^0_S K^0_L$, and $e^+e^- \rightarrow 4$ hadrons.

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