

Abstract Submitted
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Antiproton Experiments for Fermilab's Future DANIEL KAPLAN,
Illinois Institute of Technology — The world's most intense antiproton source is at Fermilab, and all of the antiprotons it produces are used by the Tevatron Collider. Anticipating the 2009 shutdown of the Tevatron (when the LHC is expected to surpass the Tevatron physics reach), we are preparing a proposal for a new experiment at the Fermilab antiproton source. The proposed program includes precision measurements of charmonium and the recently discovered charmonium-related states, sensitive searches for symmetry violations in the hyperon sector, and charm mixing and possible CP violation. Some supersymmetric models predict large deviations from Standard Model expectations in hyperons or charm; these can be tested in such a program.

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