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Centrifugal separation in electron-antiproton plasmas¹ JOEL FA-JANS, U.C. Berkeley, ALPHA COLLABORATION — In thermal equilibrium, the antiprotons in an electron/antiproton plasma will be concentrated on the plasma's outer radial edge. We here report the first observation of such centrifugal separation in this system, as well as the first report of separation in a system in which the required cooling is provided by cyclotron radiation rather than by laser cooling. We will also present measurements of the timescale on which thermal equilibrium is attained, and discuss the relaxation mechanisms.

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