

Abstract Submitted
for the DPP16 Meeting of
The American Physical Society

Poloidal Structure of Disruption Halo Currents in Alcator C-Mod¹ ROBERT GRANETZ, ALEX TINGUELY, MIT Plasma Science and Fusion Center, ALEXANDRA BERG, Research Science Institute, ADAM KUANG, DAN BRUNNER, BRIAN LABOMBARD, MIT Plasma Science and Fusion Center — A new set of optimized Langmuir probes embedded in the outboard divertor of Alcator C-Mod has been run in a mode that effectively measures halo currents during disruptions. These data provide unprecedented poloidal spatial and temporal resolution of the halo current flowing into and out of the divertor surface. Reconstructions of the evolving plasma boundary during the disruption current quench gives us information on the point(s) of contact on the divertor surface as a function of time, and this has been compared to details of the halo current distribution, including the spatial profiles of halo current polarity and amplitude. In addition, the safety factor, $q_{lim}(t)$, of the plasma surface is also calculated from the boundary reconstructions, and its correlation with the halo current amplitude will be shown.

¹US DoE award DE-FC02-99ER54512

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Date submitted: 11 Jul 2016

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