

Abstract Submitted  
for the DPP09 Meeting of  
The American Physical Society

**Global Geodesic Acoustic Modes Driven by Energetic Particles in the DIII-D Tokamak**<sup>1</sup> R. NAZIKIAN, G.Y. FU, N.N. GORELENKOV, G.J. KRAMER, Princeton Plasma Physics Laboratory, M.E. AUSTIN, H.L. BERK, University of Texas-Austin, W.W. HEIDBRINK, University of California-Irvine, G.R. MCKEE, M.W. SHAFER, University of Wisconsin-Madison, E.J. STRAIT, M.A. VAN ZEELAND, General Atomics — Intense axisymmetric oscillations driven by suprathermal passing ions injected in the direction counter to the toroidal plasma current are observed in the DIII-D tokamak. Strong bursting and frequency chirping coincide with large (10 – 15%) drops in the neutron emission, suggesting that the mode is very effective in displacing beam ions from the plasma core. BES measurements of density fluctuations indicate an outward propagating mode of large radial extent. The large density to temperature ratio of the mode confirms a dominant compressional contribution to the pressure perturbation, indicative of the Geodesic Acoustic Mode (GAM).

<sup>1</sup>Work supported by the US DOE under DE-AC02-09CH11466, DE-FG03-97ER54415, SC-G903402, DE-FG02-89ER53296, DE-FG02-08ER54999, and DE-FC02-04ER54698.

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Date submitted: 17 Jul 2009

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