Abstract Submitted for the DPP06 Meeting of The American Physical Society

On non existence of tokamak equilibria with purely poloidal flow¹ GEORGE THROUMOULOPOULOS, University of Ioannina, Physics Department, P. O. Box 1186, GR 45110 Ioannina, Greece, HAROLD WEITZNER, New York University, Courant Institute of Mathematical Sciences, New York 10012, HENRI TASSO, Max-Planck-Institut fuer Plasmaphysik, Euratom Association, D85748 Garching, Germany — It is proved that irrespective of compressibility tokamak steady states with purely poloidal mass flow can not exist in the framework of either magnetohydrodynamics (MHD) or Hall MHD models. Non-existence persists within single fluid plasma models with pressure anisotropy and incompressible flows.

¹Performed under the Contract of Association ERB 5005 CT 99 0100 between EU-RATOM and the Hellenic Republic.

> George Throumoulopoulos University of Ioannina, Physics Department, P. O. Box 1186, GR 45110 Ioannina, Greece

Date submitted: 20 Jul 2006

Electronic form version 1.4