

Abstract Submitted
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Overview of the Pegasus Experimental Program¹ A.C. SONTAG, D.J. BATTAGLIA, M.W. BONGARD, N.W. EIDIETIS, M.J. FROST, G.D. GARSTKA, B.A. KUJAK-FORD, M.B. MCGARRY, B.J. SQUIRES, B.T. LEWICKI, E.A. UNTERBERG, G.R. WINZ, University of Wisconsin-Madison — The Pegasus Toroidal Experiment is exploring plasma stability at near-unity A and developing non-solenoidal startup tools. Several techniques have been developed to suppress deleterious tearing modes by modifying the current profile, including toroidal field ramps and noninductive current drive via washer-stack current sources. These techniques have allowed access to $I_N=14$ MA/m-T without the appearance of performance-limiting instabilities. Filamentary structures have recently been observed near the edge of almost all ohmic discharges; large values of $j_{||}/B$ in this region suggest that these may be the result of peeling modes. Non-inductive startup via washer-stack current sources has produced plasmas with toroidal currents up to 50 kA. Plasmas have been produced using two geometries: with sources in the lower divertor region, and with a source on the outboard midplane producing moderate-A targets intended for PF induction. Plasmas produced with both geometries have been successfully coupled to Ohmic drive.

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Prefer Oral Session
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