Abstract Submitted
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Intermittent turbulence in mixed-ion plasmas in LAPD[1] TROY CARTER, STEPHEN VINCENA, JEFF ROBERTSON, THOMAS LOOK, University of California, Los Angeles — Intermittent turbulence is observed in the edge region of a wide range of magnetic confinement devices. The intermittency is explained by the generation of field-aligned filamentary structures, called "blobs," within the turbulent edge region. These blobs are observed to propagate outward and are responsible for a large fraction of particle transport in the edge region of magnetic confinement devices. Experiments on the Large Plasma Device at UCLA have shown that blobs have a typical cross-field size scale of $\sim 10\rho_s$ and a typical cross-field velocity of $\sim C_s/10$[2]. Recent experiments have focused on the properties of blobs in mixed-ion plasmas, in particular D-H plasmas with varying concentration. Such data is relevant to fusion plasmas which will ultimately be mixes of D and T. Results on the scaling of blob size, velocity, transport and other statistics (waiting time) with ion mix will be presented.

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[2]T.A. Carter, PoP 13, 010701 (2006)

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