

Abstract Submitted
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Penetration of filamentary structures in the x-point region of spherical tokamaks¹ D. A. BAVER, J. R. MYRA, Lodestar Research Corporation, F. SCOTTI, Lawrence Livermore National Laboratory, S. J. ZWEBEN, Princeton Plasma Physics Laboratory, F. MILITELLO, N. WALKDEN, CCFE, Culham Science Centre — ArbiTER is a flexible eigenvalue code designed for plasma physics applications. It is used here to gain insight into the spatial dependence of filamentary structures in the scrape-off layer of spherical tokamaks. In particular, observations on MAST reveal the presence of a quiescent x-point region. Observations in NSTX similarly reveal a reduction in divertor fluctuations near the separatrix and a loss of midplane correlation. We will report on the penetration of filamentary structures into the vicinity of the x-point, as well as growth rate trends, for a variety of profiles and toroidal mode numbers. This will determine whether linear properties of these structures can explain experimental observations.

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