

Abstract Submitted
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Simulation of EGAM with GTS GE WANG, GUOYONG FU, WEIXING WANG, Princeton Plasma Physics Laboratory — Energetic particle induced geodesic acoustic mode is studied using the gyro-kinetic code GTS, where the electrons, ions and energetic particles are treated as fully kinetic species. The unstable EGAM is growing up when the beta of energetic particles increases up to the threshold. The eigen-frequency and growth rate of EGAM mode are benchmarked with the NEMROBE using the doubly bumped distribution function of the energetic particles. The frequency of the nonlinear EGAM is observed to chirp during the marginal instability of the EGAM. The EGAM plays a role in the ITG turbulence and therefore it will influence the transport of energetic particles in tokamak. We will discuss our results on this issue.

Ge Wang
Princeton Plasma Physics Laboratory

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