



Effects of energetic-particle-induced geodesic acoustic mode on ion-temperature gradient driven mode stability

Ningfei Chen, Zhiyong Qiu

Institute of fusion simulation and theory, Zhejiang university.

E-mail:21836013@zju.edu.cn

Drift wave (DW) turbulence is one of the potential candidates for anomalous transport, e. g. ion-temperature gradient driven mode (ITG) is generally considered to contribute to ion-scale transport. DWs can be regulated by zonal structures, such as geodesic acoustic mode (GAM).

Since its observations in experiments, energetic-particle-induced GAM (EGAM) driven by, e.g. neutral beam injection, is proposed as a potential active control for DW turbulences; while the effects of EGAM on DW turbulences is not yet well-understood. In this work, the effects of EGAM on ITG stability is analyzed theoretically to access the mechanism of EGAM regulating DW

References:

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