

Abstract Submitted
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Energy absorption due to spatial resonance of Alfvén waves at continuum tip EUGENE CHEN, HERB BERK, BORIS BREIZMAN, LINJIN ZHENG, IFS, UT Austin — We investigate the response of tokamak plasma to an external driving source. An impedance-like function depending on the driving frequency that is growing at a small rate, is calculated and interpreted with different source profiles. Special attention is devoted to the case where driving frequency approaches that of the TAE continuum tip. The calculation can be applied to the estimation of TAE damping rate by analytically continuing the inverse of the impedance function to the lower half plane. The root of the analytic continuation corresponds to the existence of a quasi-mode, from which the damping rate can be found.

Eugene Chen
IFS, UT Austin

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