

Kinetic instabilities driven by runaway electrons

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The velocity-space anisotropy of runaway electron distributions is a source of free energy that may destabilize plasma waves through a resonant interaction between the waves and the energetic electrons. In this talk, we describe recent results of theoretical modelling of kinetic instabilities driven by runaway electrons in fusion plasmas. Possibilities to enhance the radial transport of runaway electrons through magnetic perturbations will be addressed. Finally, the phenomena of ion runaway and its role in driving instabilities will be described.