TWO-STREAM INSTABILITY OF AN ELECTRON BEAM PROPAGATING IN A BOUNDED PLASMA

- **Electron beam propagating in a bounded plasma excites a two-stream instability. An analytical model has been developed to predict growth rate of instability and was reported in invited talk at 2015 DPP APS meeting in Savanna, Georgia.**

- **Figure shows frequency (a), temporal growth rate (b), wavenumber (c), spatial growth rate (d), and the number of wave periods per system length (e) versus the length of the system. The blue crosses mark analytical solution. Solid red and black curves represent n_b/n_p = 0:00015 (red) and = 0:0006 (black). in (b), the solid green curve represents the fitting formula. In Fig. (c), the black dashed line marks the resonant wavenumber.**

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