

A simple model of ion fluctuations (ion acoustic and ion cyclotron fluctuations for example) driven by an electron current which leads to intermittent fluctuations when the linear growth rate exceeds the wave packet dispersion rate is analyzed. The normalized fluctuation amplitude ($e\Phi/T$) can be much larger than the mass ratio (m_e/m_i) level predicted by the conventional quasilinear theory or Manheimer's theory (references to be provided), and where Φ represents the amplitude of the main peak of the ion fluctuations. Although the ion motion is linear, intermittency is produced by the strong nonlinear electron response, which causes the electron momentum input to the ion fluctuations to be spatially localized. We will present the one-dimensional case because it is especially simple from an intuitive and analytical point of view as well as from a pedagogical one, but it is readily apparent and one can put forward the conjecture that the effect occurs in a three dimensional magnetized plasma. The one dimensional analysis, as will be shown will clearly help identify the subtle difference between turbulence as conventionally understood and intermittency as it occurs in space and laboratory plasmas.