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Frequency spectrum of nonlinear electric field structures in a magnetized dusty plasma

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<p>A magnetized dusty plasma composed of an adiabatic negatively charged dust fluid, Boltzmann ions and Boltzmann electrons is considered for which coupled nonlinear dust-acoustic and dust-cyclotron waves having sinusoidal, sawtooth or spiky electric field waveforms are found to be supported when charge neutrality is assumed (Maharaj et al, 2008). The focus of this investigation is to make use of a suitable Fast Fourier Transform (FFT) algorithm to decompose the nonlinear waveforms into Fourier components in an attempt to identify the dominant frequency components of the nonlinear structures. The possibility of obtaining oscilloton solutions will also be investigated.

Level (Hons, MSc,
   PhD, other)?

Not a student

Consider for a student
   award (Yes / No)?

No

Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?

Yes

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