

Abstract Submitted  
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**Effect of electron beam on Propagation of Dust Ion Acoustic waves** AMIR MOHAMMAD AHADI, Physics Department, Faculty of Science, Shahid Chamran University of Ahvaz, Ahvaz-Iran, SAMAD SOBHANIAN, Physics Faculty, Tabriz University, Tabriz-Iran — In this work, we have studied analytically, the effect of electron beam on propagation of Dust-Ion acoustic waves (DIAWs) in an unmagnetized and collisionless dusty plasma. We have supposed that the plasma contains of thermal ions, thermal electrons, warm dust particles (that is described as a fluid) and electron beam. We have obtained the dispersion relation for new situation. The obtained results show that the beam reduces the phase (and group) velocity of DIAWs. Electron number density of beam and cathode potential are two main factors to decrease the speed of these waves.

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