

Propagation of Weak Non-Linear Waves in Non-Equilibrium Flow

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Abstract : In this paper, the propagation of weak nonlinear waves in non-equilibrium flow has been studied in detail using the perturbation method. The expansive action of receding piston undergoing infinite acceleration has been discussed. Central expansion fan, compression waves and shock fronts have been discussed and the solutions up to the first order in the characteristic plane and physical plane have been obtained.

Keywords : Characteristic wave front, weak non-linear waves, central expansion fan, compression waves

Conference Title : ICFMFA 2015 : International Conference on Fluid Mechanics and Flow Analysis

Conference Location : Istanbul, Türkiye

Conference Dates : January 26-27, 2015