

THEORETICAL STUDY OF CONVERGING BLAST WAVES IN REAL GAS ATMOSPHERE

R.P. YADAV, ETENDRA PAL SINGH AND ARVIND KUMAR

Department of Physics, Govt.(P.G.) College, Bisalpur, Pilibhit-262201

Abstract

The propagation of strong converging blast waves in real and ideal gas medium has been investigated by Chester-Chisnell-Whitham method. The analytical relations of shock velocity and shock strength have been obtained for two cases viz.1) medium is real gas and 2) when it is ideal. The profiles of flow variables of perturbed medium are prepared and discussed with the help of tables and graphs for both the cases. The results obtained here are compared with those obtained elsewhere.

Keywords - Shock wave, uniform medium, real and ideal gas.