International J. of Math. Sci. & Engg. Appls. (IJMSEA)
ISSN 0973-9424,Vol. 2 No. 1 (2008), pp. 223-233

MODELING OF ARTIFICIAL RELEASE OF AN AVALANCHE BY EXPLOSIVE DETONATION

SIAVOSH AHAMADI AND R. N. PRALHAD

Abstract

Artificial Release of an avalanche by explosive bombs has been modeled in the present investigations. Estimation of flow parameters such as velocity, maximum velocity, acceleration, shock pressure as a result of an explosion in snow pack has been computed by using appropriate dynamic model approach. The variation of these parameters with the snow slab length (L), density (ρ) of snow, sound velocity in snow pack (c), peak pressure (Pm) and time (t) has been analysed. The results have been compared with the other existing literature and found that, the present computed results agrees with the general behavior of the published works. The flow parameters have also been computed for different explosive materials [RDX, AN, TNT and HMX] for making its utility in different snow pack conditions.