

Abstract Submitted
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Shock-wave dispersion and attenuation in discrete media, effect on source localization. HASSON TAVOSSO, Valdosta State University, Department of Physics, Astronomy & Geosciences, 1500 N. Patterson St. Valdosta, GA 31698 — Shock wave speed and attenuation in a non-linear discrete media are investigated. The goal of the study is to identify parameters that control shock wave or impulsive wave speed and energy dissipation in the discrete non homogeneous binary media. Material properties of solid constituents and the elastic behavior of contact points are shown to depend on the wave frequency. The behavior at both high frequency and low frequency limits are analyzed. The effects of depth on wave velocity profile, wave spectral content and attenuation are also considered. Among applications are; accurate near ground shock wave source localization by microseism waves.

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