

Comments on wavefield propagation using Reverse-time and Downward continuation

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• ABSTRACT

Reflectivity can be estimate from a migration by cross-correlating with a forward model. The cross-correlation contains artifacts that are very low frequency and bias the reflectivity. The cause of these low frequency artifacts are identified and evaluated using Reverse-time and Downward-continuation wavefield propagation of energy using a wavelet on a one dimensional model. The model contains varying velocities that produce multiples that are displayed with a two dimensional array in space and time. The wavefields are propagated using finite difference and phase-shift algorithms, with various initial conditions and boundary values. The resulting cross-correlations are then processed to evaluate their potential for representing the reflectivity of the model.

