

Abstract

WAVEFIELD REGULARIZATION BY 3-D WAVEFIELD DECOMPOSITION FOR GEOPHYSICAL DATA

One embodiment relates to a method of wavefield regularization for geophysical data acquisition of seismic geophysical data. Measured traces, are obtained from an array of sensors. For each grid point on a processing grid, best-fitting traces of the measured traces are found. Using the best-fitting traces, spectral amplitudes of down-going and up-going wavefields are computed. The down-going and up-going wavefields are subsequently transformed to an output grid in a space-time domain. Another embodiment relates to an apparatus for wavefield regularization of geophysical data acquisition. Other embodiments, aspects and features are also disclosed.

FIGS. 3A and 3B