ABSTRACT

METHODS AND SYSTEMS FOR DEGHOSTING MARINE SEISMIC WAVEFIELDS USING COST-FUNCTIONAL MINIMIZATION

Computational systems and methods to be carried out by the computational systems for determining streamer-depth bias during exploration-seismology experiments are disclosed. In one aspect, the method computationally transforms recorded wavefield data from the space-time domain to a wavenumber-frequency domain and computationally deghosts the wavefield data in the wavenumber-frequency domain. The deghosted wavefield data may then computationally transformed from the wavenumber-frequency domain back to the space-time domain and stored. The computational methods include iterative minimization of a cost functional in the wavenumber-frequency domain.

FIG. 6

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