ABSTRACT

METHODS AND SYSTEMS FOR INTERPOLATION OF MULTI-COMPONENT SEISMIC DATA COLLECTED IN A MARINE ENVIRONMENT

Computational systems and methods for interpolating a pressure wavefield based on pressure wavefield and particle motion wavefield data are disclosed. The pressure and particle motion wavefields are sampled at a sample rate that is less than a lower bound for sample rates typically used to interpolate the pressure wavefield from the pressure wavefield samples alone. The particle motion wavefield can an acceleration wavefield or a time derivative of a velocity wavefield.

FIG. 9