

ABSTRACT

SEPARATION OF UP-GOING AND DOWN-GOING WAVEFIELDS INCLUDING THE DIRECT ARRIVAL

At least some embodiments are directed to a system. The system includes a processor and a memory coupled to the processor. The memory stores a program that, when executed by the processor, causes the processor to calculate a pressure response of a first sensor, and correct pressure wavefield data obtained from the first sensor responsive to a first acoustic wavefield. The correction is based on the calculated pressure response of the first sensor. The pressure response of the first sensor is responsive to a second acoustic wavefield having a propagation path between a source of the second acoustic wavefield and the first sensor, in which the propagation path includes no reflection from a subsurface formation.

FIG. 1