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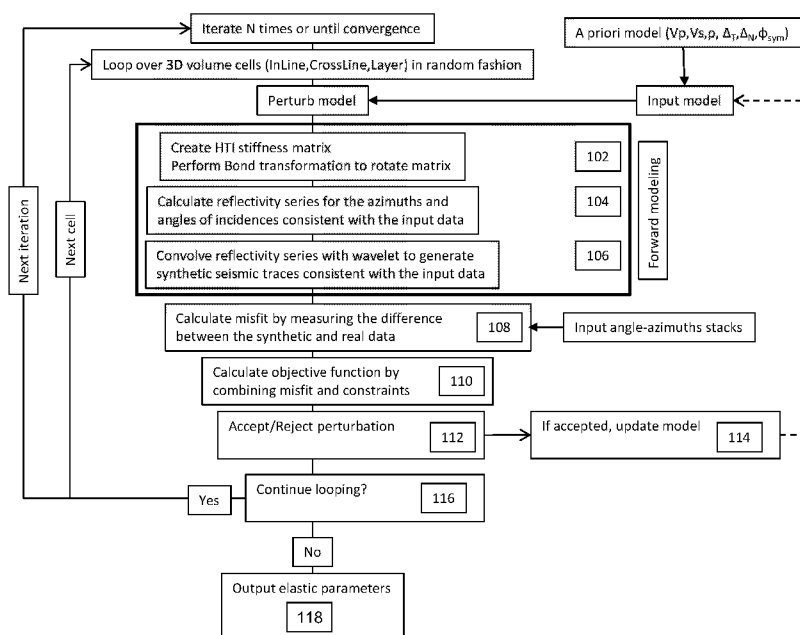


FIG. 1

(57) Abstract: An improved method for analyzing seismic data to obtain elastic attributes is disclosed. In one embodiment, a reflectivity series is determined for at least one seismic trace of seismic data obtained for a subterranean formation, where the reflectivity series includes anisotropy properties of a formation. One or more synthetic seismic traces are obtained by convolving the reflectivity series with a source wavelet. The one or more synthetic seismic traces are inverted to obtain elastic parameters estimates. According to one aspect, the data inputs are angle-azimuth stacks. According to another aspect, the data inputs are azimuthal Fourier coefficients, u_n , v_n .