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Wave-Equation Migration Velocity Analysis using Image Wrapping

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Summary: A method to construct velocity models for imaging the interior of the Earth

Description: A method to construct velocity models for imaging the interior of the Earth has been developed. The method uses wavefield-based methodology and the discrepancies between images constructed using redundant seismic experiments. This approach resembles Full Waveform Inversion in the sense that the complete seismic wavefields are used for velocity updates, and also Differential Semblance Optimization in the sense that the semblance principle is used to assess the quality of the velocity model. By blending the two techniques, this method is more robust and efficient.

Main Advantages of this Invention:

- Does not require imaging of all data acquired in a field seismic experiment
- Improved accuracy over current methods

Potential Areas of Application:

- Oil and Gas
- Seismic Imaging

ID number: 11009

Intellectual Property Status: WO 2013/009,944 patent pending

Opportunity: We are seeking an exclusive or non-exclusive licensee for marketing, manufacturing, and sale of this technology.

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