

From: Weglein, Arthur B (aweglein@Central.UH.EDU)
To: aweglein@Central.UH.EDU;
Date: Sat, September 3, 2011 1:08:50 AM
Cc:
Subject: Seismic Imaging and Inversion: Application of Linear Inverse Theory, Stolt and Weglein, Cambridge University Press, November,2011

Dear M-OSRP Sponsors and Invited Guests,

Attached please find the book cover for the forthcoming first of a two volume set “Seismic Imaging and Inversion: Application of Linear Inverse Theory” by Robert H. Stolt and Arthur B. Weglein to be published by Cambridge University Press in November, 2011. The second volume” Seismic Imaging and Inversion: Application of Direct Non-Linear Inverse Theory”, is currently being written by Weglein and Stolt. These two volumes are intended as a graduate text in Seismic Physics, with the first volume providing a new single and consistent scattering theory underpinning and framework for both specular and diffractive scattering by introducing a point reflectivity function and imaging, that also serves as the foundation for linear and non-linear inversion. The second volume focuses on direct non-linear inverse methods derived from the inverse scattering series, and isolated task subseries, that can directly and without subsurface information: (1) remove free surface multiples; (2) remove internal multiples, (3) depth image primaries, (4) invert for changes in earth mechanical properties; and, (5) Q compensation without Q.

The relationship between Green’s theorem and scattering theory will be described, with the former providing the opportunity to predict the source signature and radiation pattern, and de-ghosted data, required by, and in a manner that is consistent with the processing chain of inverse scattering series methods (listed above).

These volumes will provide a new view, perspective and algorithmic contribution for current leading-edge seismic imaging, inversion and seismic physics as well as the foundation and tools for those students and researchers fascinated by and striving towards a fundamental new capability and vision of what might be possible- and that new and increased capability will be needed to address the outstanding and pressing challenges in exploration seismology.

I look forward to seeing you at the SEG Conference in San Antonio.

Best regards,

Art

Dear M-OSRP Sponsors and Invited Guests,

You are most warmly and cordially invited to attend the M-OSRP Executive Summary Technical Review Meeting at the 2011 SEG International Conference and Convention in San Antonio, Texas on Monday Sept. 19th, 2011, from 6:30 PM-8:00 PM. The Meeting will be held at the Mokara Hotel (formerly the Watermark Hotel) in the Saddlery Ballroom located at 212 Crockett Street, San Antonio, Texas, 78205, phone 210-396-5800.

Attached please find a selection of highlights from our last Annual Meeting in June 2011 and a paper that you might find of interest. By separate e -mails, next week, we will send: (1) three papers that will appear in the August, 2011 TLE Special Section on Multiple Attenuation; (2) two recently published papers on a new and consistent RTM method, and; (3) a paper that details the logic behind the

synthetic and field data tests and analysis that concluded that ISS direct depth imaging without a velocity model is viable.

We look forward seeing you at our meeting at the SEG Convention in San Antonio.

Thank you for your encouragement and your support.

Best regards,

Art

Arthur B. Weglein