



Mission-Oriented Seismic Research Program
2014 Annual Technical Review and Meeting
Omni Barton Creek Resort & Spa
8212 Barton Club Drive, Austin, TX 78735

AGENDA

Tuesday, May 27, 2014

7:00 PM Welcome and Reception: Hill Country Veranda

Wednesday, May 28, 2014

7:30 AM Continental Breakfast at “the Forum” (Meeting Room)

8:30 AM Welcome, program goals, objectives and overall strategy: Tutorial on the inverse scattering series and Green’s theorem for preprocessing, one-way wave equation migration and for RTM
*Arthur B. Weglein**

9:30AM Morning Break

Multiples: part I

10:00AM Multiple attenuation: recent progress, and a plan to address open, prioritized and pressing issues and challenges
*Arthur B. Weglein**

10:45AM Multiple removal and prerequisite satisfaction: Current status and future plans
James D. Mayhan and Arthur B. Weglein*

12:00PM Lunch: Hill Country Dining

1:00PM Predicting reference medium properties from invariances in Green’s theorem reference wave prediction: towards an on-shore near surface medium and reference wave prediction
Lin Tang and Arthur B. Weglein*

1:45 PM Afternoon Break

- 2:15PM** Elastic Green's theorem preprocessing for on-shore internal multiple attenuation: theory and initial synthetic data tests
Jing Wu and Arthur B. Weglein*
- 3:00PM** Incorporating the source wavelet and radiation pattern into the ISS internal multiple attenuation algorithm
Jinlong Yang and Arthur B. Weglein*
- 3:45PM** Internal multiple attenuation on Encana Data
Qiang Fu and Arthur B. Weglein*

Thursday, May 29, 2014

- 7:30 AM** Continental Breakfast at "the Forum" (Meeting Room)
- Multiples: part II: ISS for internal multiple elimination in elastic and inelastic media, directly and without subsurface (elastic or inelastic) information**
- 8:30AM** Including higher order terms to address a serious shortcoming/problem of the internal multiple attenuator: examining the problem and its resolution
Chao Ma and Arthur B. Weglein*
- 9:15AM** The internal multiple elimination algorithm for all reflectors in a 1D earth: part 1, strengths and limitations
YangleiZou and Arthur B. Weglein*
- The internal multiple elimination algorithm for all reflectors in a 1D earth: part 2, addressing the limitations
YangleiZou and Arthur B. Weglein*
- 10:05 AM** Morning Break
- 10:35AM** ISS internal multiple attenuation algorithm for a 3D source and one dimensional subsurface
Xinglu Lin and Arthur B. Weglein*
- 11:20AM** The first test and evaluation of the inverse scattering series internal multiple attenuation algorithm for an attenuating medium
Jing Wu and Arthur B. Weglein*
- 12:05 PM** Lunch: Hill Country Dining
- 1:20PM** Invited Guest Presentation: The Leadership Computing Alliance: addressing the HPC challenges of M-OSRP algorithms
Michael Perrone, IBM*
- 1:45 PM** Afternoon Break

ISS direct depth imaging without a velocity model

2:15PM ISS direct depth imaging without a velocity model; update and Marmousi model tests
Fang Liu and Arthur B. Weglein*

Wave equation RTM (with a velocity model)

2:45PM The first wave equation migration RTM with data consisting of primaries and internal multiples: theory and 1D examples
Fang Liu and Arthur B. Weglein*

Asymptotic (Kirchhoff) migration and Wave equation migration

3:15 PM Asymptotic (Kirchhoff)migration and Wave Equation Migration for one-way waves: comparison of the migrated images amplitude as a function of angle: implications for asymptotic and WEM RTM
Qiang Fu, YangleiZou, Arthur B. Weglein and Robert H. Stolt*

4:00 PM Initial analysis and comparison of the wave equation and asymptotic prediction of a receiver experiment at depth for one-way propagating waves
Chao Ma, Jing Wuand Arthur B. Weglein*

4:45 PM Meeting overview and plans going forward
*Arthur B. Weglein**

7:00 PM Annual Meeting Dinner: Palm Court

Friday, May 30, 2014

9:00AM Individual one on one meetings with attendees/participants (Please contact Arthur B. Weglein. Thanks.)