

Texas Consortium for Computational Seismology

2012 Spring Research Meeting

| Thursday, March 22, 2012 | | |
|--------------------------|---|---|
| 8:00–8:30 | Coffee and pastries | |
| 8:30–9:00 | Welcome | |
| | Eric Potter Sergey Fomel | Welcome from BEG Introduction |
| 9:00–12:00 | Morning session: Full Waveform Modeling | |
| | Björn Engquist Jack Poulson Paul Tsuji Sergey Fomel Xiaolei Song | Review of sweeping preconditioners Parallel preconditioner for 3-D Helmholtz Sweeping preconditioner for spectral elements in anisotropic and elastic media Review of wave extrapolation by lowrank approximation Lowrank approximation and FFD for orthorhombic and variable density media |
| 12:00–1:00 | Lunch | |
| 1:00–4:30 | Afternoon session: Traveltimes | |
| | Alex Vladimirovsky (Cornell) Vladimir Bashkardin Siwei Li Tariq Alkhalifah (KAUST) | Causal numerical methods for traveltimes Fast phase-space computation of multi-arrival traveltimes Traveltime tomography using DSR eikonal Traveltime perturbations for anisotropic parameter estimation |
| 5:00–8:00 | Wine reception and dinner at Rattan Pan-Asian Bistro | |
| Friday, March 23, 2012 | | |
| 8:00–8:30 | Coffee and pastries | |
| 8:30–12:00 | Morning session: Fast Transforms | |
| | Lexing Ying Jingwei Hu Shaunak Ghosh Yihua Cai Sergey Fomel | Review of butterfly algorithms Butterfly algorithm for hyperbolic Radon Multiple attenuation in T-P-X domain Spectral recomposition Regularized nonstationary autoregression and spectral decomposition |
| 12:00–1:00 | Lunch | |
| 1:00–4:30 | Afternoon session: Diffraction Imaging and Full Waveform Inversion | |
| | Alexander Klovov Salah Alhadab Zhonghuan Chen (Tsinghua) Karl Schleicher Omar Ghattas | Diffraction imaging in dip-angle domain and optimization of migration aperture Diffraction imaging: Canterbury dataset Accelerated plane-wave destruction Open data library Uncertainty quantification in full waveform seismic inversion |

The meeting location is BEG Houston Research Center,
11611 West Little York Road, Houston, TX 77041.

The dinner location is Rattan Pan-Asian Bistro,
1396 Eldridge Parkway South, Houston, TX 77077.