

# Texas Consortium for Computational Seismology

## *Second Biannual Research Meeting*

Monday, September 26, 2011		
8:00–8:30	Coffee and pastries	
8:30–9:30	Welcome	
	J. Tinsley Oden Eric Potter Sergey Fomel	Welcome from ICES Welcome from BEG Introduction
9:30–12:00	Morning session: Seismic Data Processing	
	Alexander Klovov Parvaneh Karimi Sergey Fomel Karl Schleicher	Seismic diffraction imaging Stratigraphic coordinates Local slope as a universal attribute Open-source geophysical software
12:00–1:00	Lunch	
1:00–4:30	Afternoon session: Frequency-Domain Wave Propagation	
	Björn Engquist  Paul Tsuji Jack Poulson Richard Tsai  Alexey Stovas (NTNU)	Fast preconditioners for the Helmholtz equation High-order solver for the Helmholtz equation Parallel sweeping preconditioner Inverse source problem for the Helmholtz equation Low-frequency extension of the Backus averaging
5:30–8:30	Wine reception and dinner at Clay Pit	
Tuesday, September 27, 2011		
8:00–8:30	Coffee and pastries	
8:30–8:900	Sergey Fomel	Introduction
9:00–12:00	Morning session: High-frequency Wave Propagation	
	Björn Engquist Siwei Li Lexing Ying Vladimir Bashkardin Alex Vladimirovsky (Cornell University)	Recent developments in Gaussian beams Complex eikonal equation Multiscale Gaussian beams The oriented wave equation Computing multi-valued traveltimes using the invariant manifold approach
12:00–1:00	Lunch	
1:00–4:30	Afternoon session: Fast Algorithms and Inverse Problems	
	Lexing Ying Haizhao Yang Jingwei Hu Kiu Ren Xiaolei Song	Fast algorithms for oscillatory integrals Fast computation of multilinear operators Fast preconditioner for normal operators Theormoacoustic tomography Lowrank finite differences

The meeting location is ICES, Room ACE 6.304, 201 E 24th Street, Austin, TX 78712.

The dinner location is Clay Pit, 1601 Guadalupe Street, Austin, TX 78701.