Texas Consortium for Computational Seismology

Tenth Bi-Annual Research Meeting

Monday, October 26, 2015		
8:30–9:00	Coffee and pastries	
9:00–9:30	Sergey Fomel	Introduction
9:30–12:00	Morning session: *Seismic Data Analysis*	
	Yangkang Chen	Noise attenuation from simultaneous sources
	Kelly Regimbal	Improving resolution of NMO
	Karl Schleicher	3D seismic processing working workshop
12:00–1:00	Lunch	
1:00–4:00	Afternoon session: *Seismic Inversion Theory*	
	Björn Engquist	Review of Wasserstein distance
	Yunan Yang	Wasserstein distance applied to seismic inversion
	Mark Lai	Surface-consistent static corrections
	Tan Bui	Large-scale CSE with quantifiable uncertainty
4:00–5:00	Lexing Ying (Stanford)	Sparsifying preconditioners (in RLM 5.104)
High frequency wave propagation has been a longstanding challenge in scientific computing. For the time-harmonic problems, integral formulations and/or efficient numerical discretization often lead to dense linear systems. Such linear systems are extremely difficult to solve for standard iterative methods since they are highly indefinite. In this talk, we consider several such examples. For each one, we construct a sparsifying preconditioner that reduces the dense linear system to a sparse one and solves the problem within a small number of iterations.		
5:30–8:30	Wine reception and dinner at Clay Pit Restaurant	

Tuesday, October 27, 2015		
8:30–9:00	Coffee and pastries	
9:00–9:30	Scott Tinker	Welcome from BEG
9:30–12:00	Morning session: *Seismic Imaging and Inversion*	
	Andrej Bona (Curtin)	Imaging and characterization of diffractors
	Dmitrii Merzlikin	Path-integral diffraction imaging
	Tieyuan Zhu	Viscoelastic imaging
	Junzhe Sun	Microseismic imaging on distributed sensor networks
	Zhiguang Xue	3D regularized full-waveform inversion
	Yibo Wang (CAS)	Utilization of multiples
12:00–1:00	Lunch	
1:00–3:30	Afternoon session: *Seismic Interpretation and Anisotropy*	
	Xinming Wu (CSM)	Automatic fault detection and interpretation
	Sergey Fomel	Estimating shifts and slopes
	Yanadet Sripanich	Wavefield decomposition in orthorhombic media
	Alexey Stovas (NTNU)	Kinematic properties of orthorhombic media

The meeting location is Room 4.304, Peter O'Donnell Building (POB) on the University of Texas at Austin main campus, 201 E 24th Street, Austin, TX 78712.

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