



**The Jackson School of Geosciences**  
**2013 Annual Meeting & Technical Symposium**  
*Forum for Exploration and Development Geophysics Education & Research (EDGER)*

## TENTATIVE AGENDA

### Monday Evening, March 4, 2013

#### **Annual EDGER Forum Dinner**

7:00-9:00 PM      **The Annual EDGER Forum Dinner** will take place in **the North Ballroom** of the new **Student Activity Center (SAC)** in the East Mall Area of campus and directly across from the Jackson Geological Sciences Building (JGB)

### Tuesday, March 5, 2013

#### **Day 1 Annual Meeting & Technical Symposium**

**8:00-8:40 AM**      **Registration/Breakfast at the Thompson Conference Center (TCC) in the Auditorium**

8:40-8:45 AM      Welcome

8:45-9:45 AM      The Next Evolution: Where are we in unconventional geophysical applications?  
Presented by Eric VonLunen, Senior Geophysical Advisor and Team Lead, NEXEN

9:45-10:00 AM      Introduction of Delegates

**10:00-10:15 AM**      **Coffee Break**

10:15-10:45 AM      Overview of Student Research  
*Bob Tatham, Mrinal Sen, Kyle Spikes – Co-PIs, EDGER Forum*

<b>Session I: Rock Physics Models and Applications</b>
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10:45-11:10 AM      Error estimates of elastic tensor components in stress-dependent VTI media  
*Kyle Spikes, Assistant Professor, Jackson School (DGS)*

11:10-11:45 AM      Introduction to New Students  
*Sarah Coyle, Patrick Gustie, Han Liu, Jacqui Maleski, Makoto Sadahiro*

**11:45-1:00 PM**      **Buffet Lunch on the Patio**

1:00 -1:15 PM      P-wave and S-wave angle dependent velocity prediction from anisotropic modeling  
*Qi Ren, Graduate Student (PhD)*

1:15-1:40 PM      Rock physics modeling to constrain petrophysical properties in the productive zone of the Marcellus Shale, WV from wireline log data  
*Sharif Morshed, Graduate Student (MS)*



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**Tuesday, March 5, 2013 continued:**

**Day 1 Annual Meeting & Technical Symposium**

- 1:40-2:05 PM      A workflow to estimate reservoir properties of unconventional gas shales: a case study of the Haynesville Shale  
*Meijuan Jiang, Graduate Student (PhD Candidate)*
- 2:05-2:30 PM      Characterization of saturated porous rocks with obliquely dipping fractures  
*Jiao Xue, Visiting PhD Student from China University of Geosciences*
- 2:30-3:00 PM      **Coffee Break**

**Session II:**  
**Reservoir characterization and seismic inversion**

- 3:00-3:25 PM      Time-lapse seismic data registration and inversion for CO<sub>2</sub> sequestration study at Cranfield  
*Rui Zhang, Post-Doc*
- 3:25-3:50 PM      Modeling fluid composition in CO<sub>2</sub> saturated sandstone using statistical rock physics, Cranfield Field, Cranfield, MS  
*Russell Carter, Graduate Student (PhD Candidate)*
- 3:50-4:05 PM      Modeling of 4D seismic response at the Norne Field  
*Karl Sletten, Visiting MS student from Norway, NTNU*
- 4:05-4:30 PM      Gas hydrates saturation estimation using geophysical methods: An application to Krishna-Godavari Basin, India  
*Kumar Das, Graduate Student (MS)*

**Tuesday Evening, March 5, 2013**

**EDGER Forum Reception at Holland Family Student Center**

- 5:00-7:00 PM      EDGER Forum Reception at the Holland Family Student Center located in the Jackson School of Geosciences Building (JGB) about 10 minutes walk from the TCC auditorium. Open bar on the patio and appetizers served from 5-7pm.**



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**Wednesday, March 6, 2013**

**Day 2 Annual Meeting & Technical Symposium**

- 8:00-8:30 AM Light Breakfast on the patio at the Thompson Conference Center (TCC)  
8:30-9:45 AM Business Meeting  
**9:45-10:00 AM Coffee Break**  
10:00-10:05 AM Thank you from Dean of the Jackson School of Geosciences, Sharon Mosher

**Session II continued:**

- 10:07-10:25 AM Comparison of optical and elastic Brewster's angles to provide intuitive insight into propagation of P- and S-waves  
*Bob Tatham, Professor Jackson School (DGS)*
- 10:25-10:50 AM Rotation of shear-wave components at non-normal angles of incidence: Black-bear data, Oklahoma  
*Terence Campbell, Graduate Student (PhD Candidate)*
- 10:50-11:15 AM Estimation of fracture parameters after removing anisotropic overburden effect  
*Mohammed Alhussain, Graduate Student (PhD Candidate)*
- 11:15-11:40 AM Application of principal component analysis to simultaneous seismic inversion  
*Yang Xue, Graduate Student (PhD Candidate)*

**Session III:  
Wavefield modeling and migration**

- 11:40-12:05 PM Practical aspects of numerical simulation of wave propagation  
*Mrinal Sen, Professor Jackson School (DGS)*
- 12:05-1:00 PM Boxed Lunches on the Patio**
- 1:00-1:25 PM Frequency-domain full waveform inversion with plane-wave data  
*Yi Tao, ConocoPhillips & recent PhD Graduate of the EDGER Program*
- 1:25-1:40 PM Analysis of fracture-related seismic attenuation and scattering: insights gained through numerical modeling  
*Lauren Becker, Graduate Student (MS)*
- 1:40-2:05 PM Suppressing non-gaussian noises with scaled receiver wavefield for reverse time migration  
*Yi Tao, ConocoPhillips & recent PhD Graduate of the EDGER Program*
- 2:05-2:25 PM Double plane wave depth migration  
*Zeyu Zhao, Graduate Student (PhD)*
- 2:25-3:35 PM General Discussion
- 3:30 PM Adjourn