

## SEG 2008 WORKSHOP, LAS VEGAS

*“Uncertainty analysis in geophysical imaging, estimation and inverse problems”*

*Thursday afternoon, Nov. 13, 2008*

Co-Chairs: David Lumley [delumley@4Dgeoscience.com](mailto:delumley@4Dgeoscience.com)  
Eldad Haber [haber@mathcs.emory.edu](mailto:haber@mathcs.emory.edu)

**FORMAT:** *Each speaker will present for **15min only** followed by a 10min discussion period*

1:30-3:10 THEORY & COMPUTATION

### **Introduction to Uncertainty: Theory & Computation**

*Eldad **Haber**\*, Emory University*

### **Uncertainty Analysis in Geophysical Imaging**

*D. W. Oldenburg\* and R. Eso, University of British Columbia*

### **Particle Swarm Optimization (PSO): a simple and powerful algorithm family for geophysical inversion**

*J.L. Fernandez-Martinez\* (Visiting professor UC-Berkeley), J.P. Fernández-Alvarez, M.E. García-Gonzalo, C.O. Menéndez Pérez (University of Oviedo, Spain), Heidi A. Kuzma (UC-Berkeley).*

### **Resolution and Uncertainty in Geophysical Inverse Problems: A Practical Approach**

*Partha S. Routh\*, ConocoPhillips*

3:10-3:20 BREAK

3:20-5:00 DATA EXAMPLES

### **Introduction to Uncertainty: Data & Parameters**

*David E. Lumley\*, 4D Geoscience*

### **Structural uncertainty: a necessary step in geosciences risk analysis**

*E. Chavanne\*, R. A. Brahmantio, A. Douillard, A. Irving, TOTAL SA*

### **How correct is a velocity model?**

*V. Glogovsky, S. Langman (Integra); E. Landa\* (OPERA), T. J. Moser (Zeehelden)*

### **Assessing estimated velocity-depth models: finding the “error bars” in tomographic inversion**

*D. A. Chiñu, M. N. Al-Ali and D. J. Verschuur\*, Delft University of Technology*

5:00 END of WORKSHOP