

CIG/SPICE/IRIS/USAF WORKSHOP
JACKSON, NH
October 8-11, 2007

MONDAY, 8 OCTOBER

ARRIVAL

7:00P/19:00 *Icebreaker*
Veranda(good weather)/Lobby (cold weather)
Cash bar
Passed hors d'oeuvres

TUESDAY, 9 OCTOBER – CARRIAGE HOUSE ROOM

TOPIC: WAVE PROPAGATION AND RUPTURE

7:30 *Breakfast – meal cooked to order at restaurants onsite.*

8:15 Welcome

8:30 GRAVES
Broadband Ground Motion Simulations for Mw 7.8 Southern San Andreas Earthquake (ShakeOut)

9:15 RODGERS
Wave Propagation Project (WPP): A New Open-Source Tool Supporting Computational Seismology at LLNL

10:00 *Coffee break*

10:30 ASKAN
Full Waveform Tomography for Seismic Velocity and Anelastic Losses in Heterogeneous Structures Including Model Uncertainties

11:15 KÄSER
Overview of the High-Order ADER-DG Method for Numerical Seismology

12:00pm *Buffet Lunch (served in the Highfields dining room)*

1:30 NISSEN-MEYER
1-D structure, 2-D space, 3-D wavefields: A spectral-element method for global tomography

- 2:15 MICHEA
High performance optimization for the seismic wave propagation software: SPECFEM3D
- 3:00 *Coffee break*
- 3:30 BIZZARRI
Numerical modeling of physical processes occurring during the spontaneous propagation of 3D earthquake ruptures
- 4:15 CRUZ-ATIENZA
Effects of Fault Geometry on Rupture Dynamics
- 5:00 Poster Session and Software Demonstration, Carriage House Room
- 7:00 *Dinner (on own)*

WEDNESDAY, 10 OCTOBER – CARRIAGE HOUSE ROOM

TOPIC: GRID GENERATION AND INVERSE PROBLEMS

- 7:30 *Breakfast – meal cooked to order at restaurants onsite.*
- 8:30 CAPDEVILLE
Multi-scale issues and two scale homogenization solutions for the direct and inverse problem in seismology.
- 9:15 CASAROTTI
CUBIT and Seismic Wave Propagation Based Upon the Spectral-Element Method: An Advanced Unstructured Mesher for Complex 3D Geological Media
- 10:00 *Coffee break*
- 10:30 O'HALLARON
Octrees in Computational Seismology
- 11:15 BURSTEDDE
Full waveform inversion in the finite element setting -- algorithmic concepts and numerical techniques

- 12:00pm *Buffet Lunch (served in the Highfields dining room)*
- 1:30 DE HOOP
Multi-scale techniques in imaging and wave-equation tomography
- 2:15 SAMBRIDGE
Cross validation in inverse problems
- 3:00 *Coffee Break*
- 3:30 FICHTNER
Seismic waveform tomography in the time-frequency domain with applications to the Australian upper mantle
- 4:15 LIU
Constructing 3D sensitivity kernels and working towards 3D tomographic inversions based upon adjoint methods
- 5:00 Poster Session and Software Demonstration – Carriage House Room
- 7:30 *Group Dinner – Carter Notch Room*
Cash Bar

THURSDAY, 11 OCTOBER – CARRIAGE HOUSE ROOM

TOPIC : OPEN DISCUSSION

- 7:30 *Breakfast – meal cooked to order at restaurants onsite.*
- 8:00 Open Discussion
(Moderators: Michael Gurnis, Heiner Igel, Jean-Paul Montagner, Michael Ritzwoller, Jeroen Tromp)
- 10:00 *Coffee break*
- 12:00pm *Closing Lunch (Highfields)/Workshop complete*