CIG Software Release

- **SPECFEM2D 6.0** - SPECFEM2D facilitates 2D simulations of acoustic, (an)elastic, and poroelastic seismic wave propagation. With version 6.0, the 2D spectral-element solver accommodates regular and unstructured meshes, generated for example by Cubit (cubit.sandia.gov). The solver has adjoint capabilities and can calculate finite-frequency sensitivity kernels for acoustic, (an)elastic, and poroelastic media. Finally, the solver can run both in serial and in parallel. See SPECFEM2D for source code and readme manual.

Software Bug-Fixes

- **CitcomS 3.1.1 Manual Update** - CitcomS is a finite element code designed to solve thermal convection problems relevant to Earth's mantle. The manual was updated to fix an error in the geoid output table (the 5th/6th columns were flipped with the 7th/8th column) and to explain that version 3.1 is slightly backward incompatible with version 3.0, in that the same input file will generate slightly different results between the two versions. See CitcomS for source code and the updated manual. You can also run this latest version of CitcomS on the TeraGrid.
- **PyLith 1.4.2** - PyLith is a finite-element code designed to solve dynamic elastic problems and quasi-static viscoelastic problems in tectonic deformation. The latest release fixes several bugs in vers. 1.4.0 and 1.4.1, including (1) parameters in the power-law rheology are now consistent with laboratory experiments, (2) errors in implementation of point forces are fixed, (3) the stable time step for implicit time-stepping with linear viscoelastic models has been increased from 0.1 times the Maxwell time to 0.2 times the Maxwell time based on accuracy tests, (5) the preconditioner is only recomputed when necessary, (6) some unnecessary allocation and deallocations were removed through the use of persistent data structures, and (7) several memory leaks associated with output and running in parallel have been eliminated. We strongly recommend all users of previous PyLith releases to switch to this latest release; the README file has instructions on required changes. See PyLith for source code, binaries, and manual.
- **SPECFEM3D_GLOBE 4.0.4** - SPECFEM3D_GLOBE simulates global and regional (continental-scale) seismic wave propagation. The latest version fixes a bug which resulted when outputting SAC binary, SAC alpha files, or rotated seismograms (SAC or ASCII text files). See SPECFEM3D_GLOBE for source code and manual.

CIG II Transition

- **CIG-II Proposal Submitted on July 8** - The CIG-II proposal and its supplemental material were submitted on July 8, 2009. The Proposal Writing Committee wishes to thank everyone who contributed feedback and suggestions on the initial drafts. We expect a decision on the proposal just before the December AGU Meeting. The final proposal and supporting documents can be viewed at CIG II Proposal.
- **What to Expect During Transition to CIG II** - While CIG officially ends its 5-year term on August 31, 2009, after that date CIG will carry on normal operations in a "transition period." The entire CIG community structure will continue to function as it does now. Committees and working groups will keep working and meeting, and staff will be available as always for questions and assistance with CIG software. The CIG Business Meeting will again be held in December during AGU. Most of CIG's staff will stay in place at Caltech through early 2010, at which time a new administrative setup will be established at UC Davis. More information on the transition will be sent out sometime in September or early October.

Gale Users Meeting Presentations, Animations Online

- A two-day workshop held at Caltech provided advanced training in Gale use, capabilities, and code structure. The workshop was sponsored by the CIG Long-Term Tectonics Working Group and led by Walter Landry of CIG, with additional presentations by Steve Quenette of VPAC and Louis Moresi of Monash U. See the presentations from the meeting along with some animations at Gale Developers Meeting 2009.

Committees, Staff, Etc.

Administration: Mike Gurnis, (626) 395-1698,

Benchmarking, Cigma, and visualization: Luis Armendariz, (626) 395-1695,

Build procedure and computational seismology: Leif Strand, (626) 395-1697,

CIG Administration, contracts, travel, etc.: Ariel Shoresh, (626) 395-1699,

Citcom and Mantle convection benchmarks: Eh Tan, (626) 395-1693,

Equation solvers (PETSc) and PyLith development: Matt Knepley,

Gale and Magma development: Walter Landry, (626) 395-4621,

Software architecture and Pyre framework: Michael Aivazis, (626) 395-1696,

SVN software repository and systems administration: Jan Lindheim,

Website and user manuals: Sue Kientz, (626) 395-1694,

Science Steering Committee: contact Chair Louise Kellogg (UC Davis),

Executive Committee: contact Chair Marc Spiegelman (Columbia),