## Work Plan

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### CitcomS/CitcomCU

- Continue code improvements to CitcomS
- Add PETSc as a solver option
- Develop 3D spherical benchmarks in conjunction with ASPECT subgroup

### ASPECT

- Explore options for improving the energy solver,
- Develop and deliver tutorials,
- Replicate existing benchmarks; develop 3D shell benchmark
- Improve temperature/composition stabilization scheme,
- Add active tracers,
- Provide better support for levelset-like compositional field,
- Parallel benchmarking of deal.II and ASPECT to find bottlenecks,
- Work with members of the community to get their patches into ASPECT

oup anticipates: more cookbooks, nonlinear models: more testing and bug fixing, porting to new
ns (e.g., the Bluegene/Q machine at Texas A&M and the machines at the German High Performance
ting Centers), continued work on improving the manual, new ASPECT releases, work on a second
CT publication detailing, among other topics, how ASPECT treats compressible models.

## Activity

nenting Solvers in CitcomCU and CitcomS Workshop at University of California, Davis September 16-17,
address specific avenues for furthering solver capabilities for CitcomS and CitcomCU.

antle and Lithospheric Dynamics Workshop, Joint with the Canadian Geophysical Union in Banff,
a, May 4-7, 2014. Participants came together during 3 science sessions:

**Computational Methods**: Advancing the state of the art in computational modeling of mantle and
lithosphere dynamics

**Mantle Convection:** New insights from mantle convection modeling: Exploring mantle dynamics from
the lithosphere to the base of the mantle

**Lithospheric Evolution:** Geodynamics of lithosphere evolution: Numerical models and observational
constraints

athon, May 14-23, 2014. Fourteen participants converged on Texas A&M in College Station, Texas for

e development while improving their coding skills and practices.

: ASPECT 1.0 & 1.1. The ASPECT developers group has added many new features including nprovements, new and improved cookbooks, an improved temperature/composition stabilization ctive tracers.

velopment group is also working on 3D spherical benchmarking with the ASPECT group as well as groups around the world.

e in removing the Python code from CitcomS to streamline the code base, testing to ensure cookbooks updating the manual highlighting the multigrid solver, and adding PETSc as a solver option.