

## CitcomS

- [FAQs](#)
- [Scaling](#)
- [Benchmarks](#)
- [3D Spherical Mantle Convection Benchmarks](#)
- [Tutorials](#)

## Current Community Development Projects

Please let the community know what features you are currently working on in [CitcomS](#) and projected release date by adding a page here.

## User Group

*inactive*

The Citcom User Group meets every 3rd Thursday of the month to discuss issues of interest to the community. The agenda is USER driven. Please add topics you wish to discuss below.

- [2014 Teleconference Summaries](#)

Next Meeting: April 16 @ 9am PT

Video Conferencing:

Agenda: No items have been posted

Action Items

2015 March 19

- Begin document on benchmarking on wiki (Scott King). Include ASPECT community when defined.
- Petsc implementation: Identify github branch, discuss installation in a community area

## Animations

Thermo-Chemical Convection for the Mantle. The temperature cross section and a composition isosurface are shown. A dense chemical layer is at the base of the mantle initially. As the layer heats up and convection develops, the layer gets entrained into the ambient mantle. [YouTube1](#)  
[YouTube2](#)

[CitcomS](#): Evolution of Plume Conduit in the Coupled Model (citcom\_movie.gif. This movie is no longer available.)

The containing solver (not shown) is a global model, with plate motion imposed on the top surface. The embedded Solver (shown in the animation) is a high-resolution regional model, with boundary conditions retrieved from the containing solver. The black line is the past hotspot location. The red segment is the assumed melt conduit, starting at 160 km depth. The velocity vector is in yellow. The temperature BC at the CMB is shown in color. The plume is visualized as an iso-surface ( $T=0.08$ ). The numbers of grid points of both meshes are reduced for visualization purposes.

## Miscellaneous

*Modified Legendre Functions* (A technical note by Shijie Zhong.):

[modified\\_legendre\\_functions.pdf](#) (307 KB, uploaded by Lorraine Hwang 9 months 6 days ago)