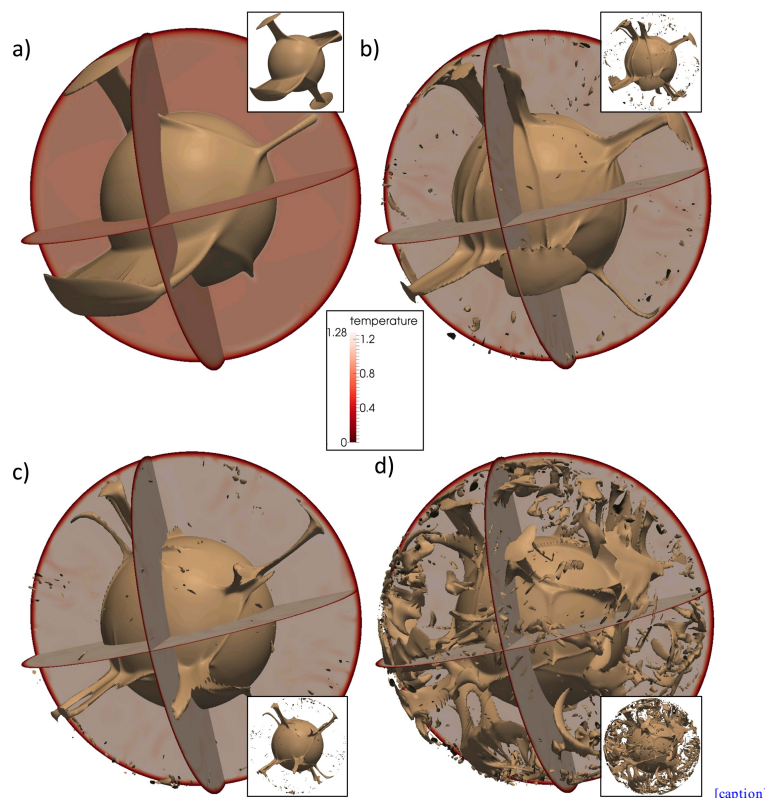


Research Highlight

CitcomS: Venus Resurfacing Constrained by Geoid and Topography



When compared with Mars or the Moon, Venus has a small number of craters, indicating that the planet has been resurfaced in the last 250–750 Myr. The primary explanations for the young crater age of the surface of Venus are progressive volcanic resurfacing and a period of mobile-lid tectonics. However, model results also must explain the offset in the center of mass (CM) of the planet and its geometrical center (CF) as well as a lack of a geodynamo. King (2018) used CitcomS 3.3.2 to study the role of initial conditions, mantle potential temperature, and core potential temperature on Venus surface mobility. The results show that while mobile lid tectonics produces progressive resurfacing, it overpredicts the CM-CF offset. In addition, the resulting heat flow would also be sufficient to power a core dynamo which Venus lacks. Hence, Venus youthful surface is inconsistent with catastrophic overturn.

[[King, 2018](#)] [[highlight](#)]

TACC/Frontera

The Texas Advanced Computing Center (TACC) at The University of Texas at Austin will begin operations of Frontera in 2019. The NSF-funded supercomputer will be the fastest at any U.S. university and among the most powerful in the world. Anticipated early projects on Frontera include solid Earth geodynamics in partnership with CIG scientists, analyses of particle collisions from the Large Hadron Collider, global climate modeling, improved hurricane forecasting and multi-messenger astronomy. World-class science applications in geophysics will be well represented through partnerships between UT Austin and California Institute of Technology, Princeton University, and the University of California, Davis. [[website](#)]

Discussion Platform Launched

CIG mailing lists are moving to a new open source discussion platform powered by [discourse.com](#). [community.geodynamics.org](#) is a civilized place for discussion combining many features of a discussion forum and a mailing list. At HQ, we are really excited to launch this new forum that will allow easier searching and tagging of discussion threads. By clicking through the link to join, you will be automatically subscribed to the Announcement forum which will replace the cig-all mailing list. To ensure you continue to receive notices of forum topics of interest, remember to configure your profile. Then navigate to the forums of interest. Find the icon to the right of the +New Topic button to select what notifications you wish to receive. Current mailing lists will be slowly phased out and notifications will be sent when closed. [[link](#)]

CTSP Whitepaper

The Coupling of Tectonics and Surface Processes (CTSP) workshop took place from 25-27 April 2018 at the University of Colorado Boulder. A total of 95 participants, including the organizing committee attended on site and up to 54 remote participants attended by video conference. The workshop was structured around two days of talks, breakout sessions, and posters. Breakout sessions focused on the key questions, opportunities, and challenges, for both the individual tectonics and surface processes communities, as well as across communities. The

discussions covered a range of topics, including: How can strain predictions from a tectonic model be translated to erodibility in a landscape evolution model? Do tectonic models need 2D topographic information, or is collapsing topography into 1D sufficient? At what time scales should models be coupled? A full summary is available [\[whitepaper\]](#).

CIG@AGU

Looking for talks in geodynamics at AGU? Visit our website to see the latest research your CIG colleagues are presenting. Do not forget to [email](#) us your presentation information so your research can be highlighted on this list. [\[presentations\]](#)

2018 CIG Business Meeting **NEW DAY & TIME**

CIG will hold its Annual Business Meeting on **Wednesday, December 12** at the Renaissance Washington, D.C. Downtown Hotel. The meeting will begin at **12:30p**. A limited number lunch boxes will be available. Results from the 2018 EC and SSC elections will be announced. See our website for more information and directions. [\[more info\]](#)

Governance

Elections

2018 Elections are now open for positions on the Executive and Science Steering Committees. Candidates for 2 seats on the EC are Susanne Buitter, Katie Cooper, Margarete Jadamec, and Louis Moresi. Candidates for 3 positions on the SSC are Anna Kelbert or Krista Soderlund, Jacky Austermann or Ebru Bozdag, and Cedric Thieulot or Cian Wilson. Candidate statements are available [online](#). Contact your [member representative](#) to vote. Many thanks to EC members Louis Moresi and Magali Billen and SSC members Katie Cooper, Boris Kaus, and Sabine Stanley for their contributions to the community and to the Nominations Committee, Sabine Stanley, Magali Billen, and Carolina Lithgow-Bertelloni for presenting an excellent slate of candidates.

Education Working Group

Our newest committee, the Education Working Group is interested in developing open source materials for teaching geophysics using computation with an emphasis on computational geophysics. The goal is to develop modules that could be used in a classroom or self-learning setting targeted at undergraduate through early graduate training. Have ideas? Email the working group at education@geodynamics.org. [\[mail\]](#)

2019 Summer Workshops

Never too early to think about summer! CIG summer workshop planning has begun. The 2019 Crustal Modeling Workshop will return to Golden, Colorado June 10-14. The 2019 ASPECT Hackathon will be held May 10 - June 1 in Utah. We are in the early planning stages for the 2019 Rayleigh Hackathon; location and date will be announced at a later date. Join our forum to receive announcements for these events. [\[forum\]](#)



17 researcher-developers gathered in Boulder, Colorado 16-19 September 2018 for the first Rayleigh Hackathon. Many thanks to Nick Featherstone and Jon Aurnou for leading this project and event.

WEBINARS

2018

November 8 - Louis Moresi & Romain Beucher

2019

January 31 - Louis Moresi

February 14 - Eunseo Choi

March 14 - Mark Ghiorso

April 11 - Cian Wilson

May 9 - Carolina Lithgow-Bertelloni

[More info](#)

[Connect to webinar](#)

MEETINGS

December 12: CIG Business Meeting

2019

May 21-June 1: ASPECT Hackathon

June 10-14: Crustal Deformation Modeling
Tutorial
TBD: Rayleigh Hackathon

NEW RELEASES

none



click the icon for citation info

ALLOCATIONS

Stampede2: 6576.3/85,608 SUs

Comet: 55/500,000 SUs

Comet GPU: 0/15,000 SUs

Oasis: 0/10,000 SUs

Ranch: 10,000 GB

QUICK LINKS

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