

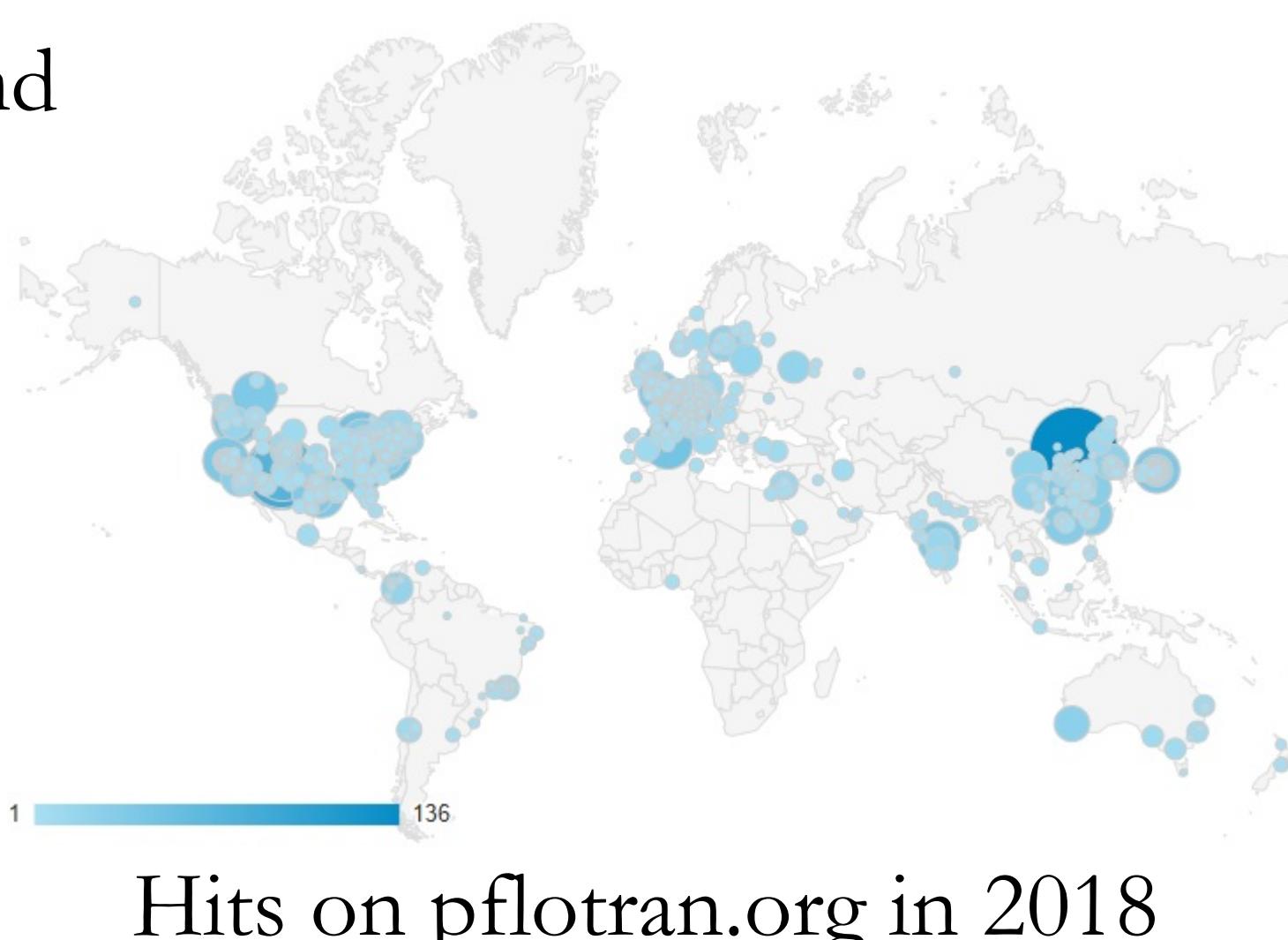


A Look at PFLOTTRAN's Cloud-Based Continuous Integration

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PFLOTRAN is a petascale reactive multiphase flow and transport simulator for modeling physical and chemical processes in the Earth's subsurface. The open source (LGPL) code is founded upon PETSc and written in object-oriented Fortran 2003/2008.



PFLOTRAN Code

- Repo: bitbucket.org/pfotran/pfotran
 - For every push to the master branch on Bitbucket, a custom PHP webhook pushes all updates to master over to GitHub (via pfotran.org). Then, Travis-CI builds PFLOTTRAN, runs all unit and regression tests, emails the developers when there are errors, and posts code coverage results to [Codecov.io](https://codecov.io).

PFLOTRAN Documentation

- Repo: bitbucket.org/pfotran/pfotran-documentation
 - For every push to the master branch on Bitbucket, a CodeShip webhook launches a Docker VM that employs Sphinx to compile reStructuredText to HTML and PDF, and deploys the documentation to doc-dev.pfotran.org.

PFLOTRAN QA Test Suite

- Repo: bitbucket.org/pfotran/pfotran-qa
 - For every push to the master branch on Bitbucket, a CodeShip webhook launches a Docker VM that builds PFLOTRAN, runs all QA tests, employs Sphinx to compile reStructuredText to HTML and PDF, and deploys the documented results to qa-dev.pfotran.org

