Introduction to Redmine and Gerrit

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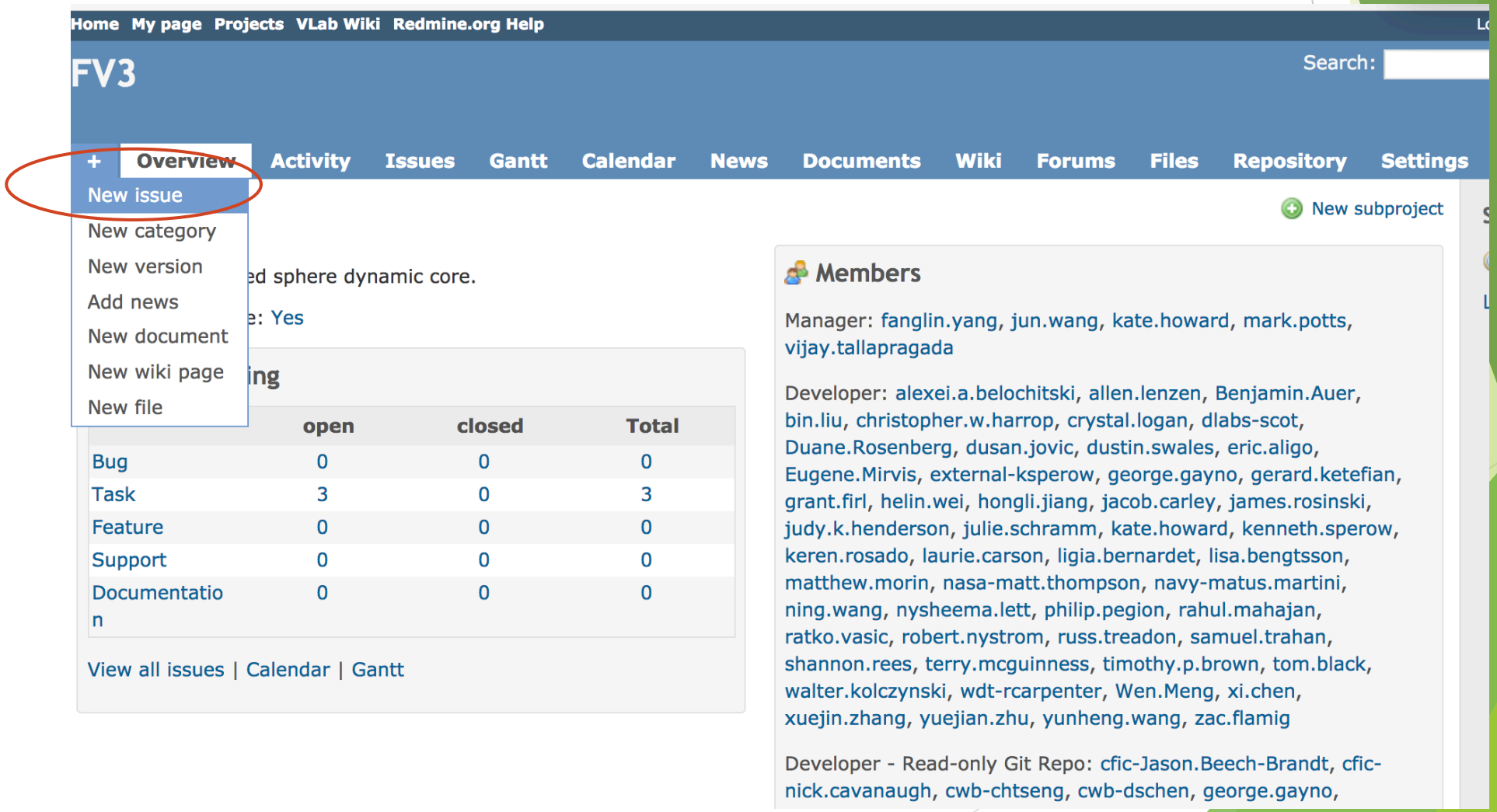
Overview of Redmine and Gerrit

- Redmine
  - Tracks issues in a way similar to Trac Wiki
  - Automatically links commit messages with ticket reference number
  - https://vlab.ncep.noaa.gov/redmine
- Gerrit
  - Used for code review
  - Manages access to what will be official version of FV3GFS project
  - Git pushes to gerrit are not immediate
    - require +2 approval from other developers/code manager
  - https://vlab.ncep.noaa.gov/code-review
- On hands training offered later this week and next week

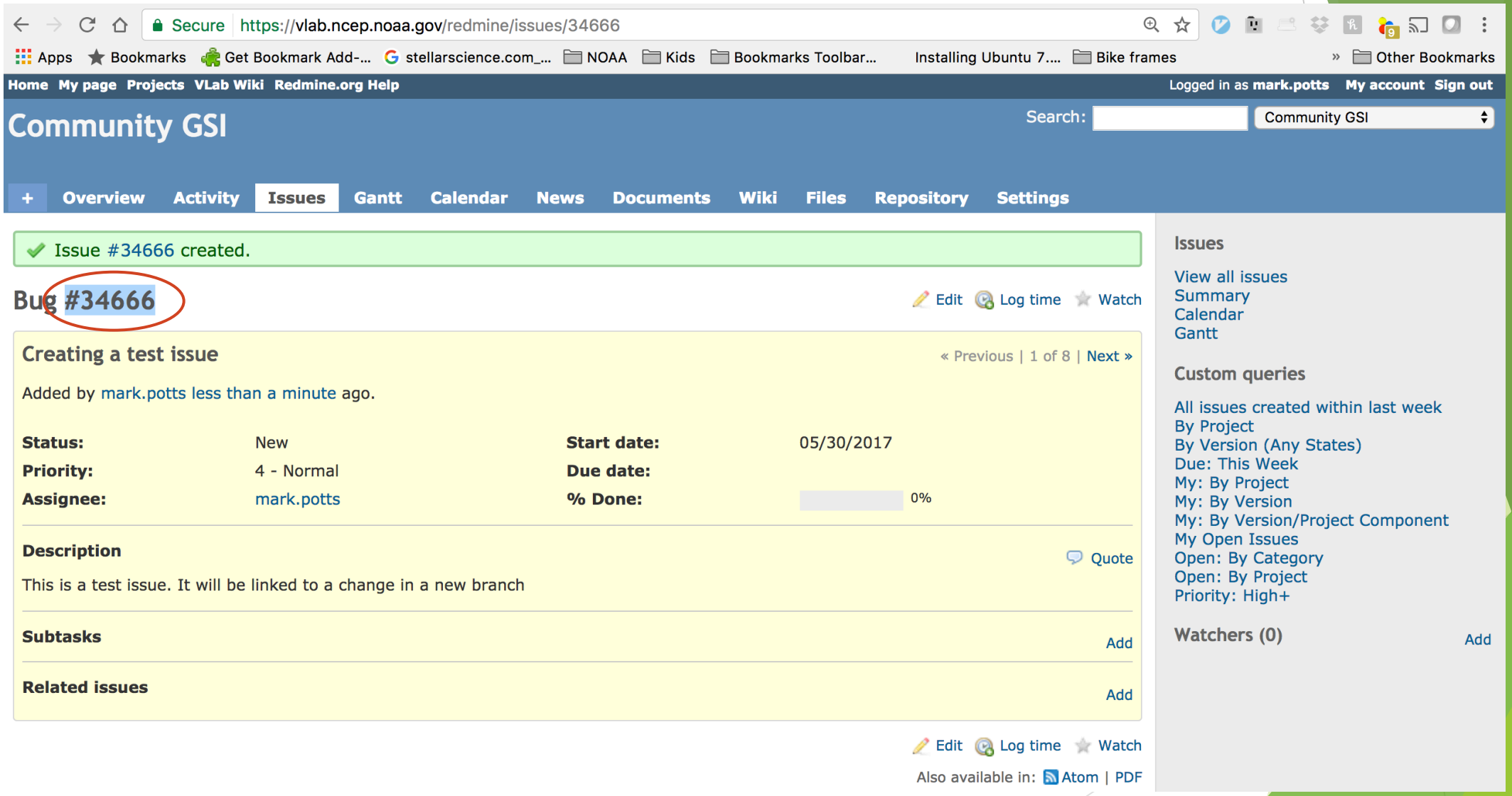
Using Redmine

- Access via https://vlab.ncep.noaa.gov/redmine
  - Select NEMSfv3gfs from the drop down menu on the top right
- Select Issues tab
- Click on on the top right side
- Fill out the form and assign to yourself (or someone else on the project)
- Note the reference number for the issue.
- Can be linked to git commits

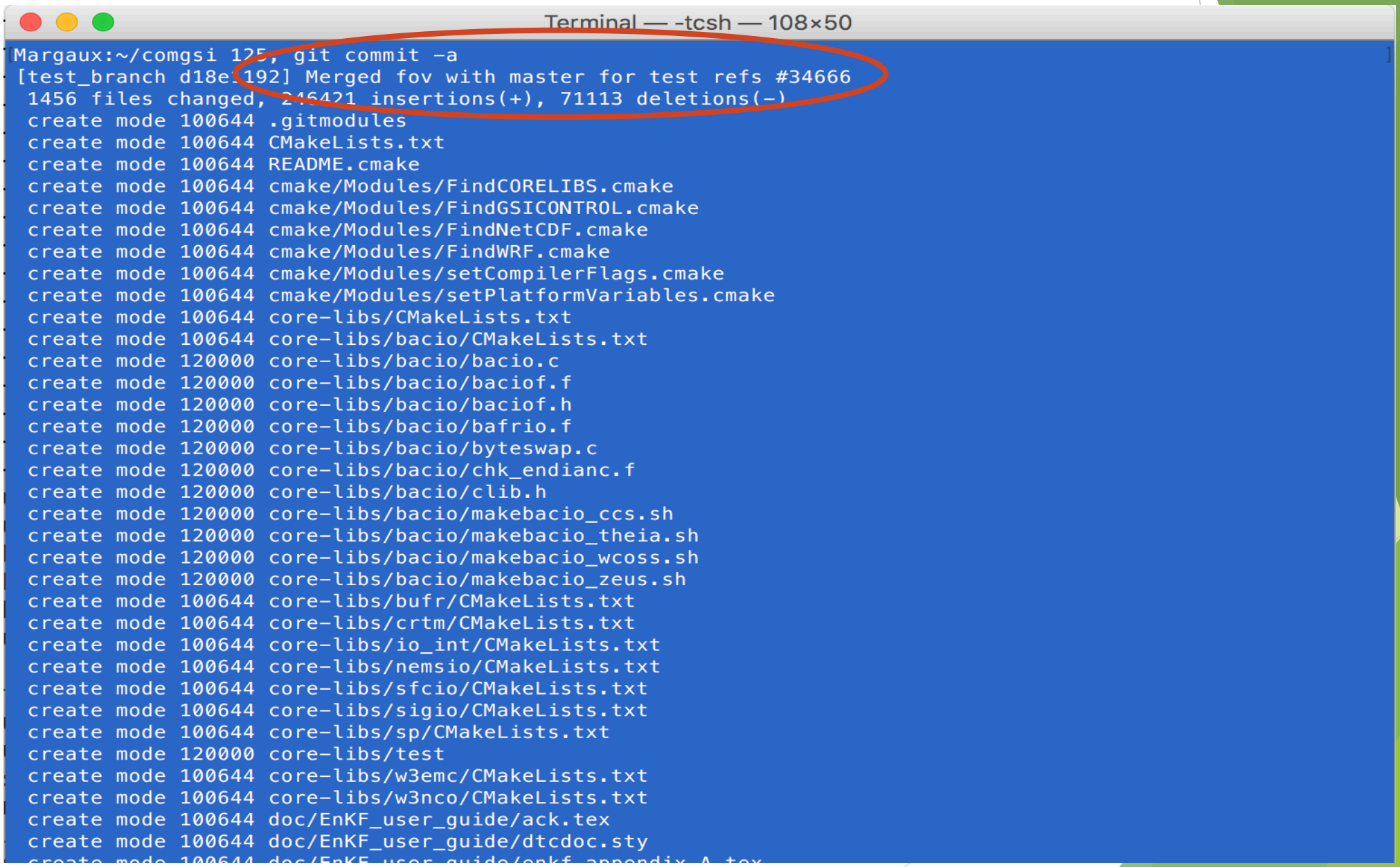
Example of creating a new issue in redmine



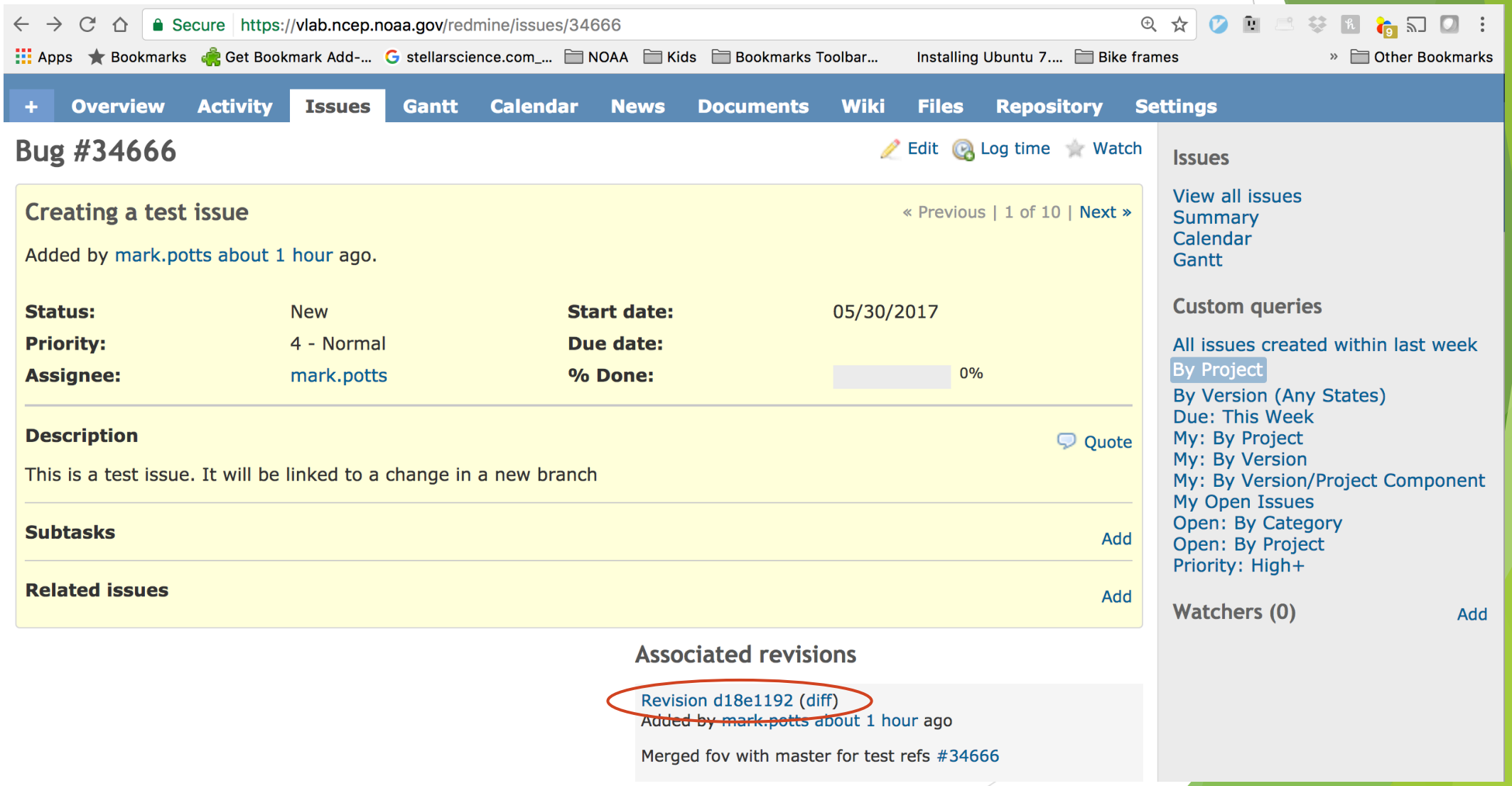
Redmine Sample



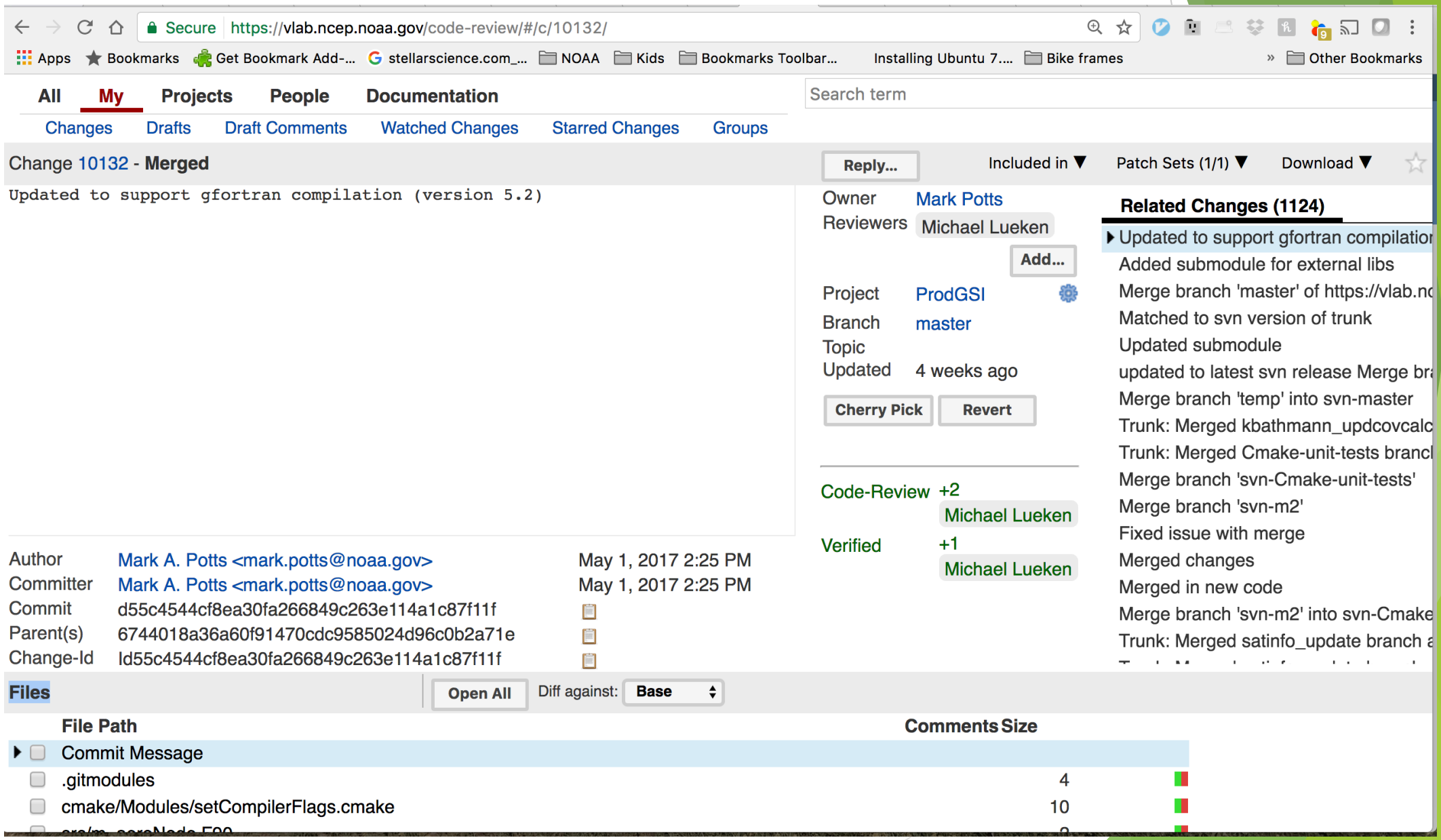
Adding reference numbers to commit



Linked to repository in Vlab

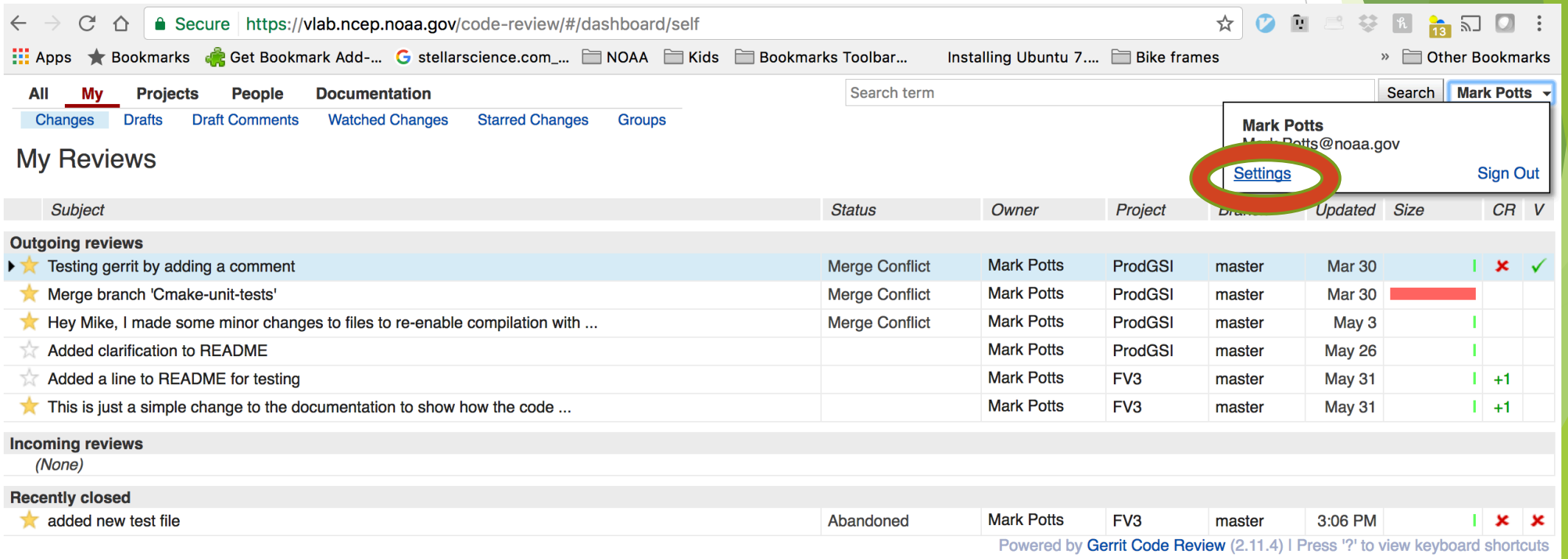


Gerrit Code Review

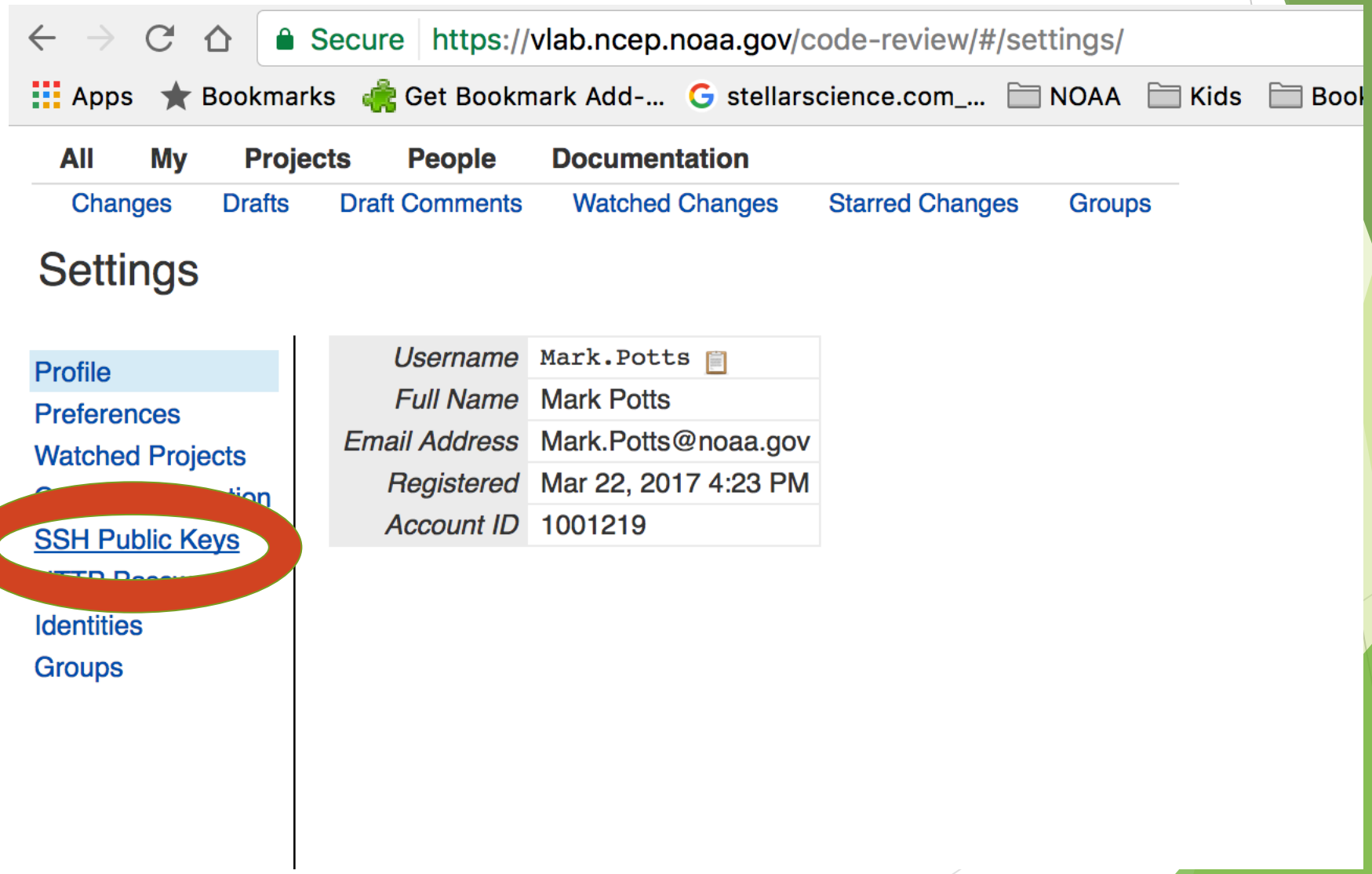


Setting up Gerrit

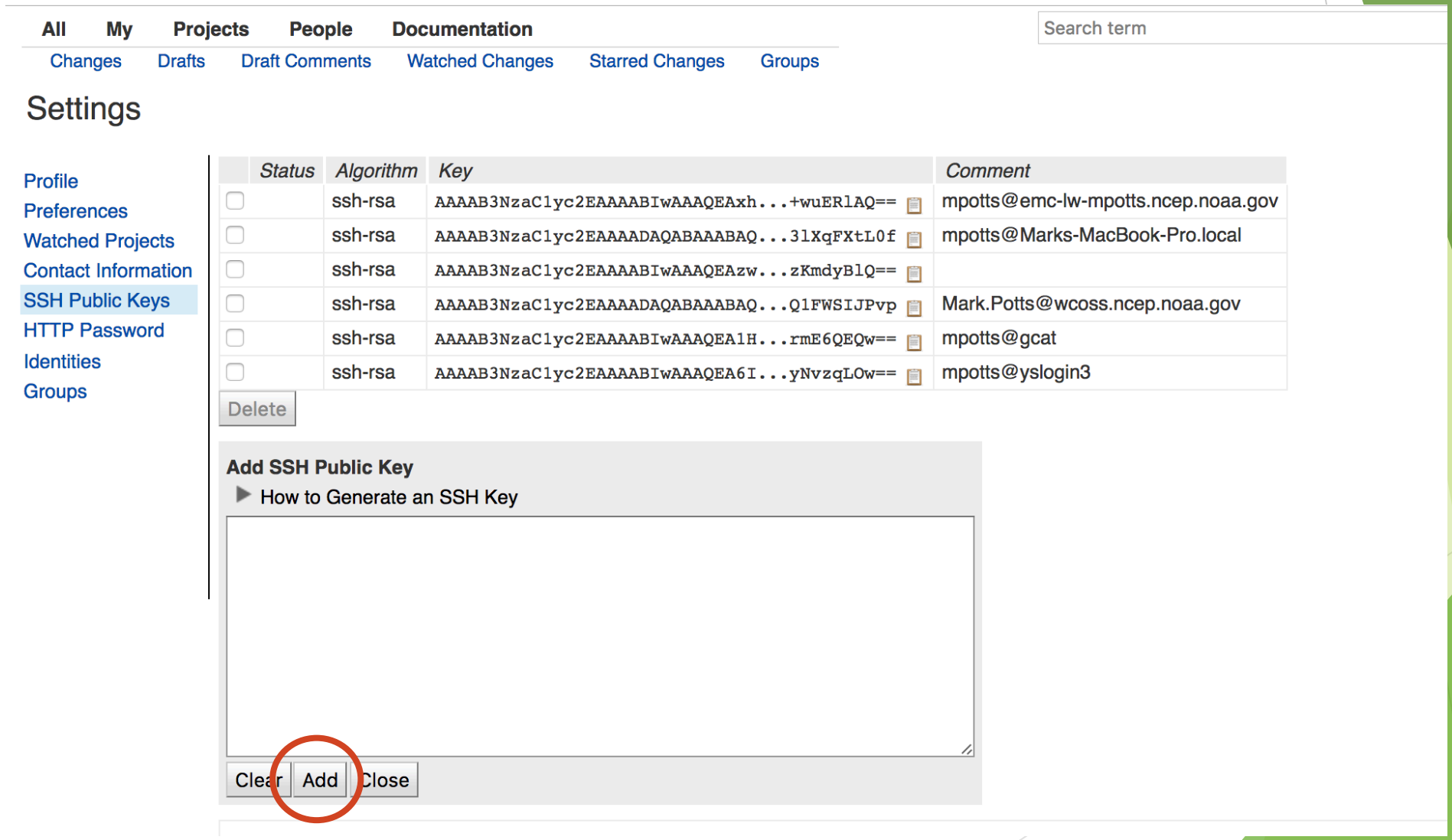
- Navigate to https://vlab.ncep.noaa.gov/code-review
- Click on user name in right hand corner and select settings



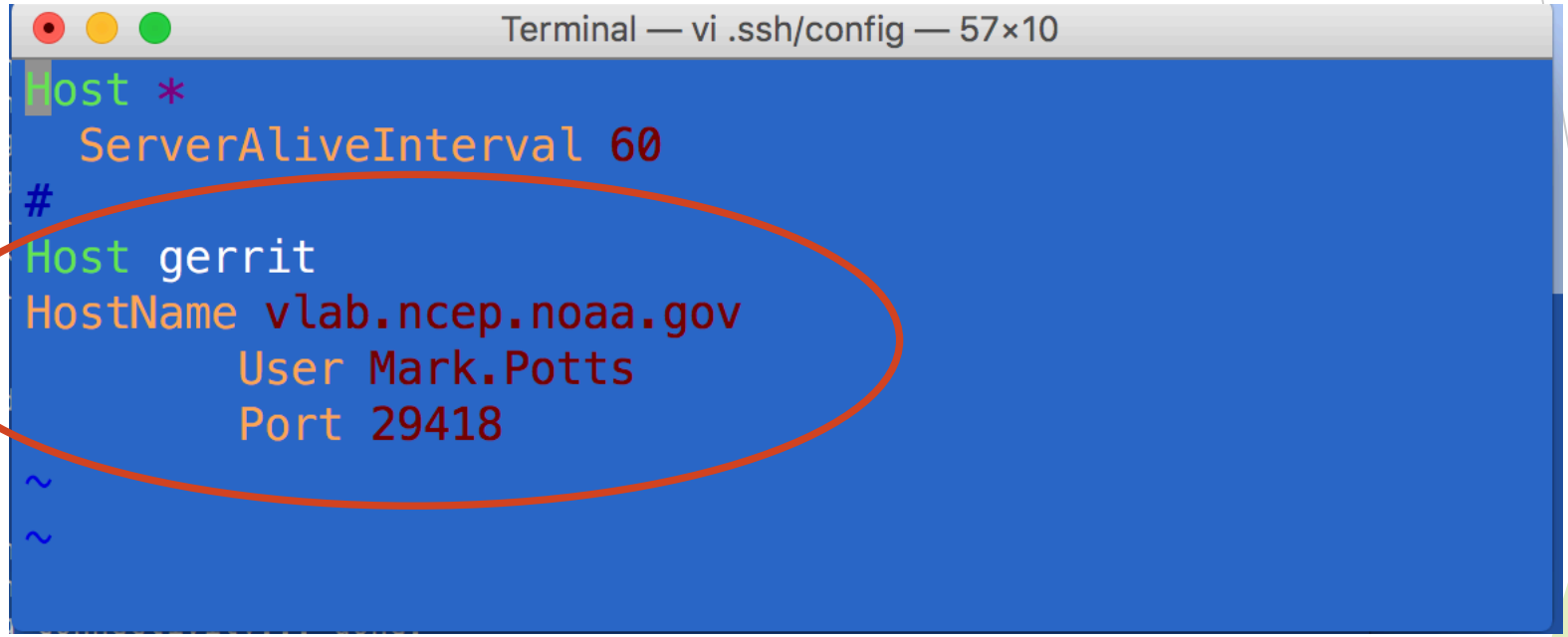
Upload ssh public key



Paste in public key from .ssh/id_rsa.pub

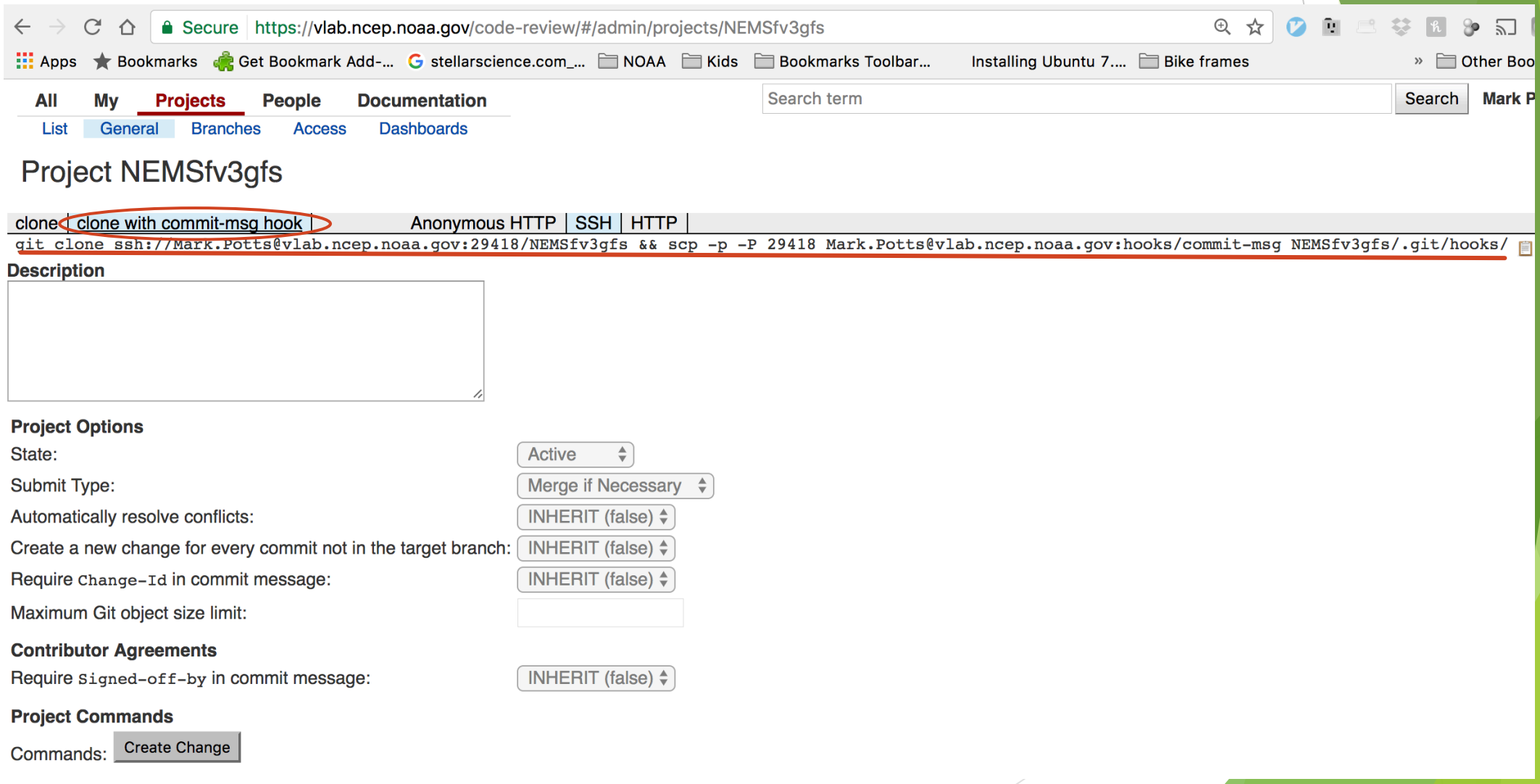


Modify .ssh/config



Note that on WCOSS, you will be unable to modify your .ssh/config file. In this case, you can either set up an alias for git commands or use the port directly

Clone the FV3 repository from the Gerrit based repo on VLab



Pushing to Gerrit

- Branches are created and modified in the same way as regular git
- Master branch is protected and changes to it must go through code review process
- First merge master to your branch locally

```
git checkout my-branch
git merge master
```

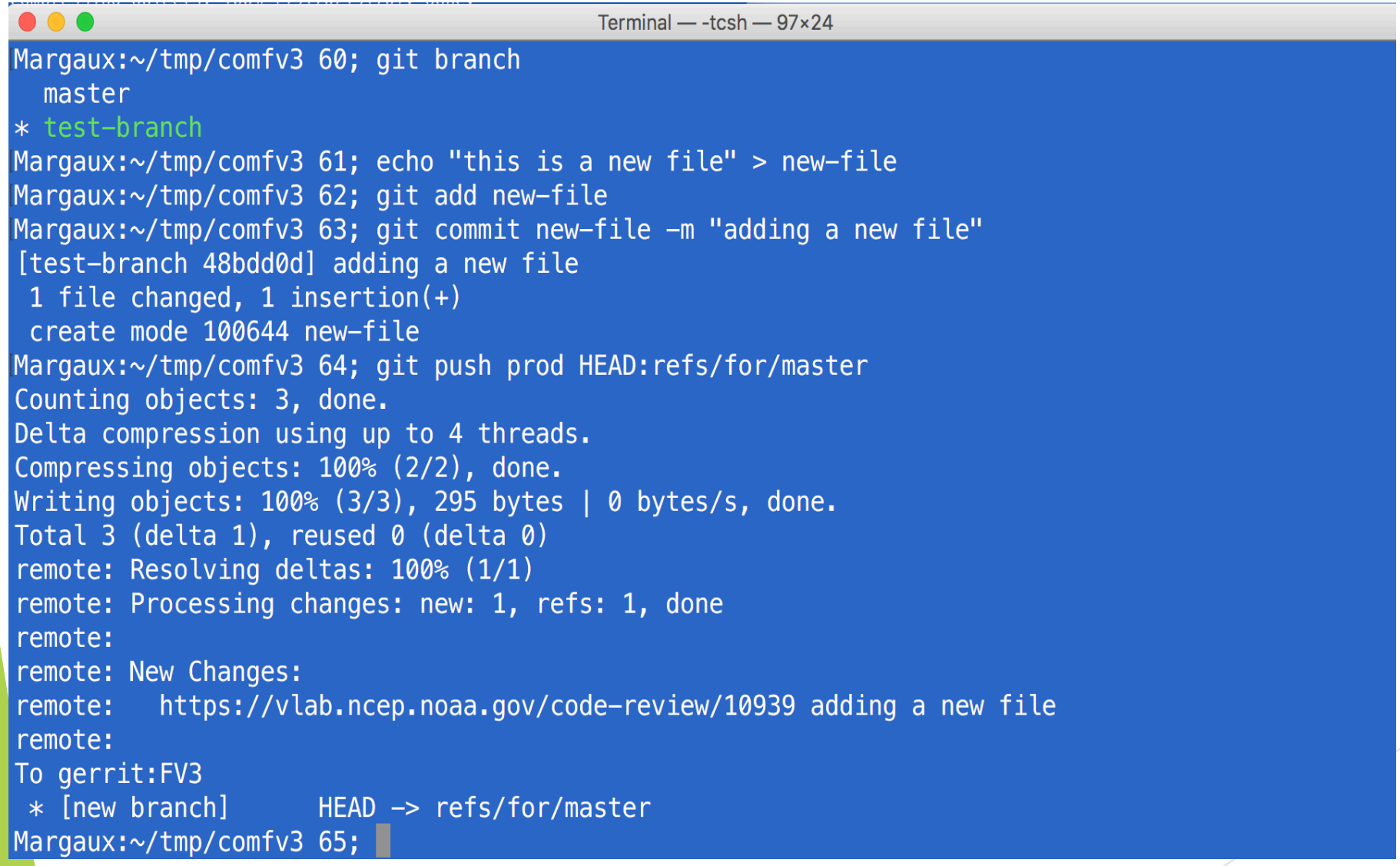
- Then merge branch to master

```
git checkout master
git merge my-branch
```

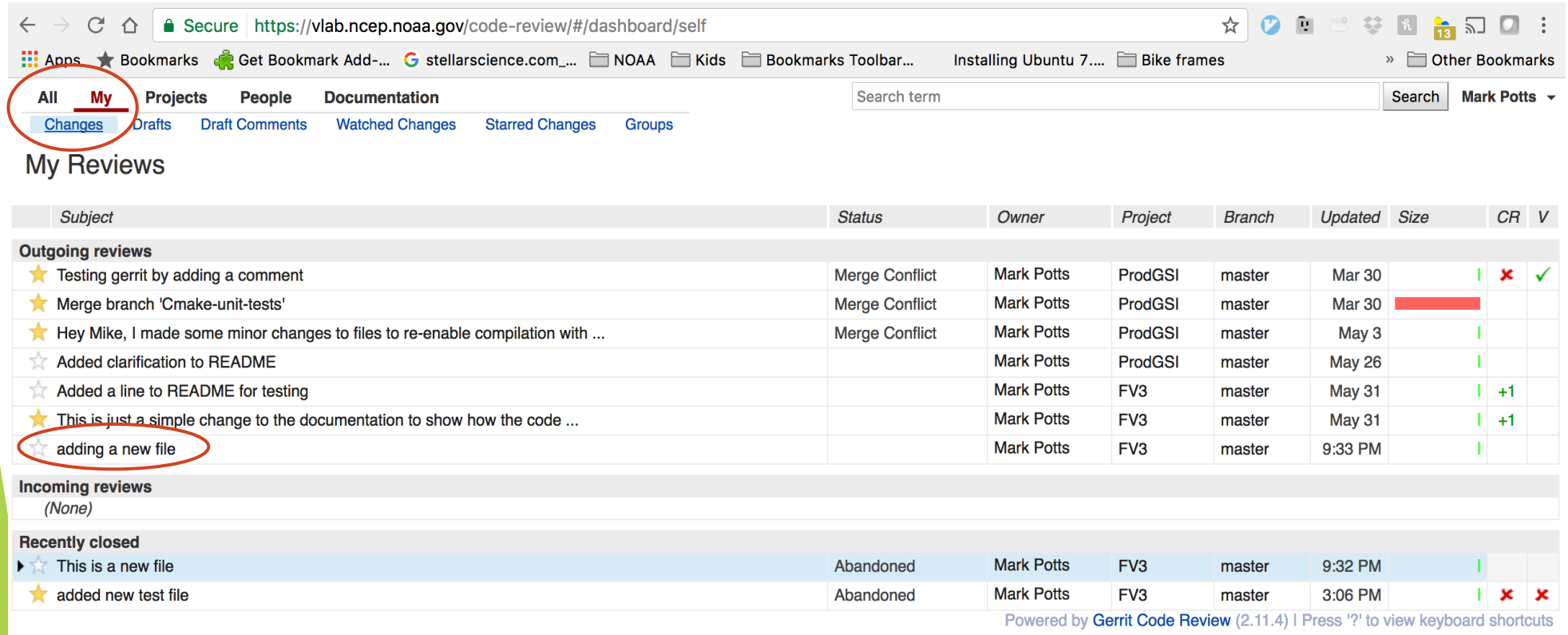
- Push to gerrit

```
git push prod HEAD:refs/for/master
```

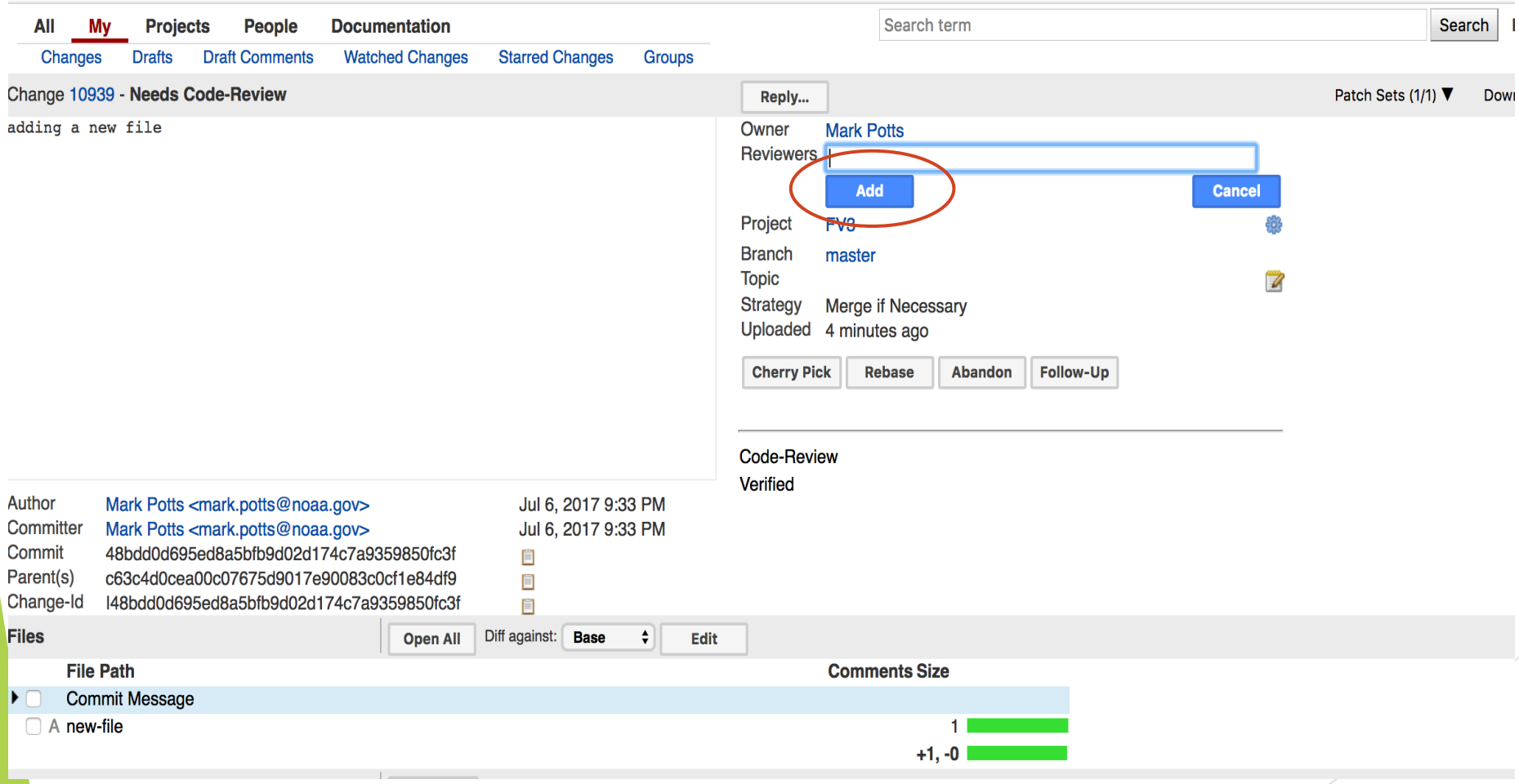
Example of pushing to Gerrit



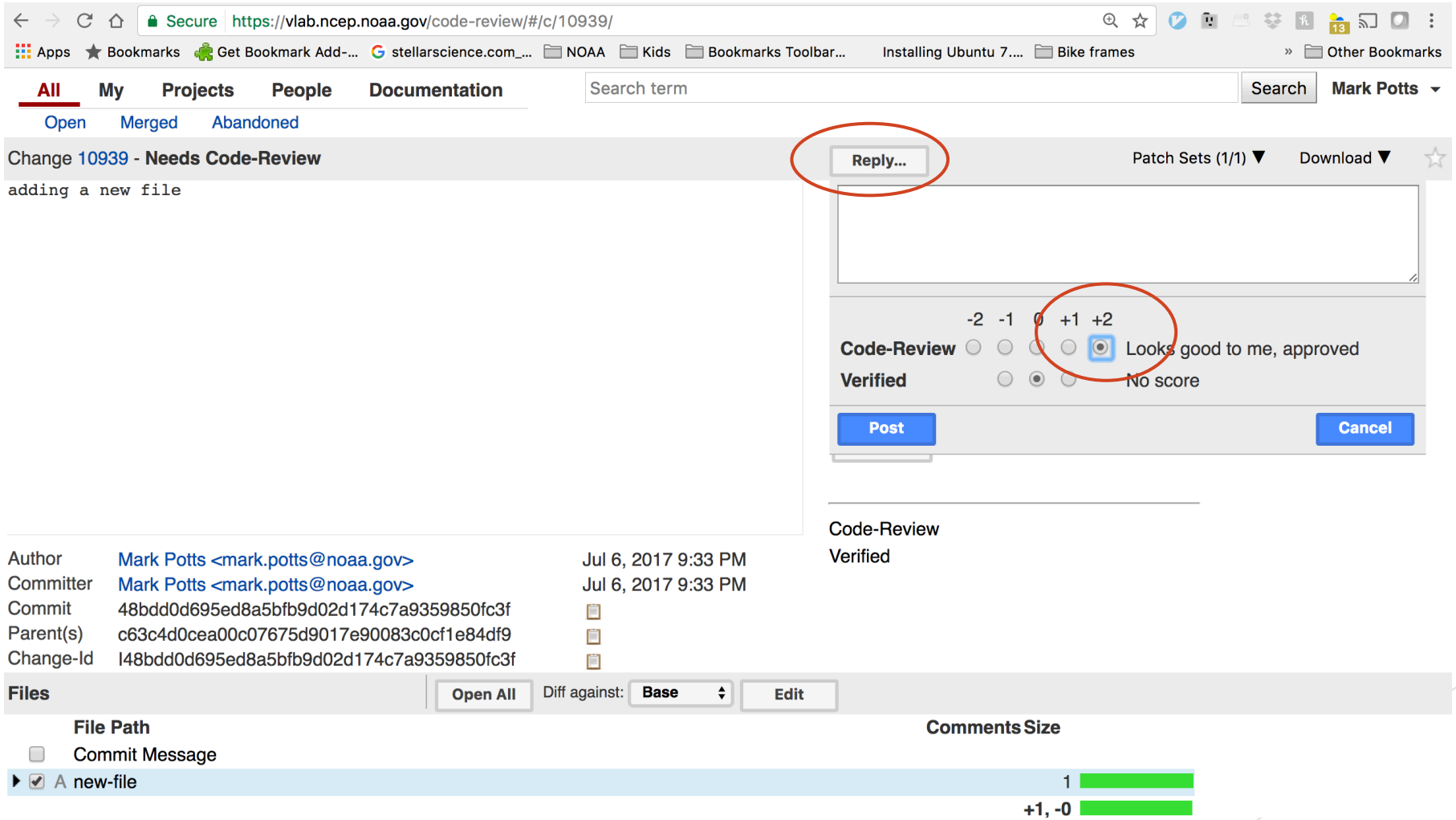
Gerrit view


Secure https://vlab.ncep.noaa.gov/code-review/#/dashboard/self
Apps Bookmarks Get Bookmark Add-... stellarscience.com_... NOAA Kids Bookmarks Toolbar... Installing Ubuntu 7.... Bike frames Other Bookmarks
All My Projects People Documentation
Search term
Search
Mark Potts
Changes Drafts Draft Comments Watched Changes Starred Changes Groups
My Reviews
Subject Status Owner Project Branch Updated Size CR V
Outgoing reviews
Testing gerrit by adding a comment Merge Conflict Mark Potts ProdGSI master Mar 30
Merge branch 'Cmake-unit-tests' Merge Conflict Mark Potts ProdGSI master Mar 30
Hey Mike, I made some minor changes to files to re-enable compilation with ... Merge Conflict Mark Potts ProdGSI master May 3
Added clarification to README Mark Potts ProdGSI master May 26
Added a line to README for testing Mark Potts FV3 master May 31 +1
This is just a simple change to the documentation to show how the code ... Mark Potts FV3 master May 31 +1
adding a new file Mark Potts FV3 master 9:33 PM
Incoming reviews
(None)
Recently closed
This is a new file Abandoned Mark Potts FV3 master 9:32 PM
added new test file Abandoned Mark Potts FV3 master 3:06 PM
Powered by Gerrit Code Review (2.11.4) | Press '?' to view keyboard shortcuts

Adding reviewers



Reviewing changes



On hands training available August 2, 3, 9, and 10

- Nominally 25 people per session
- Will need a laptop or alternatively your desktop (webex)
- Please set up Gerrit (ssh keys uploaded and ssh config modified) before training
- Sign up here-- https://drive.google.com/open?id=1zoL0lpKZRNfchzs2SaZUTE7UDAK5t0rJ4166UbSOQUw