

Materials: <https://software-carpentry.org>  
<http://swcarpentry.github.io/git-novice/>



# Version Control with Git

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**[www.menti.com](https://www.menti.com)**

**Code: 57 18 70**



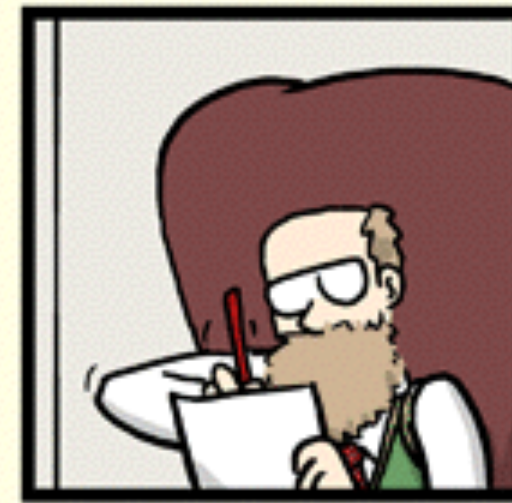
# "FINAL".doc



FINAL.doc!



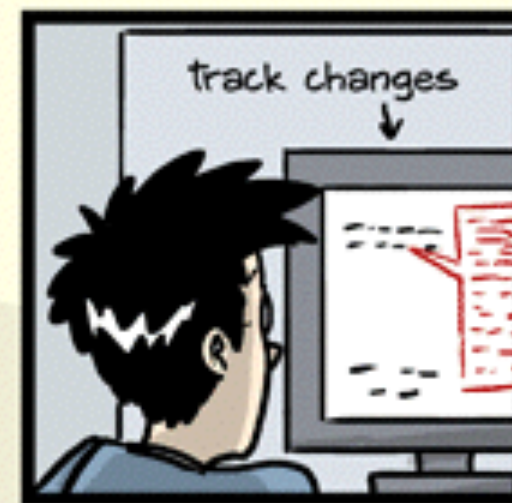
FINAL\_rev.2.doc



FINAL\_rev.6.COMMENTS.doc



FINAL\_rev.8.comments5.  
CORRECTIONS.doc



FINAL\_rev.18.comments7.  
corrections9.MORE.30.doc

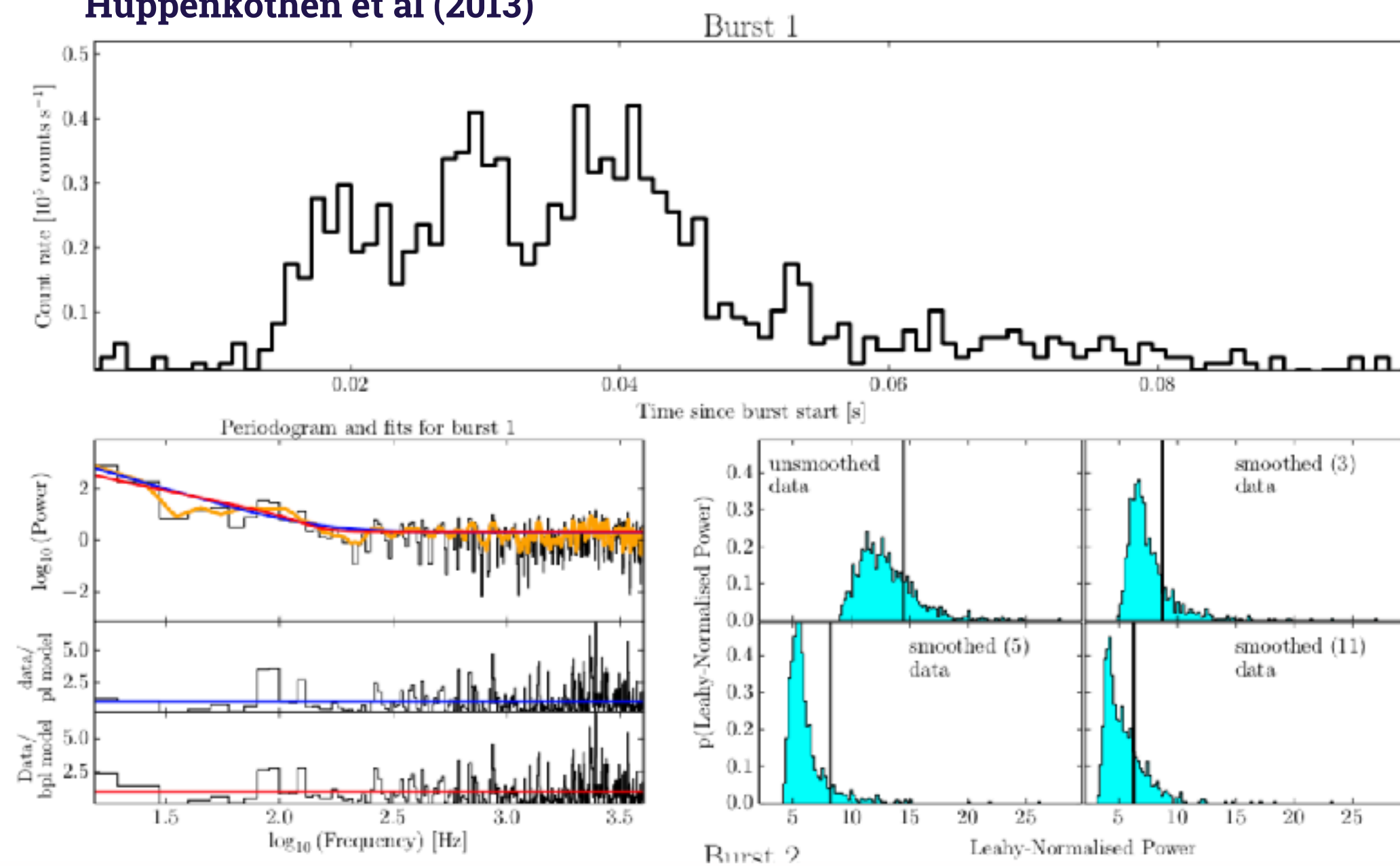


FINAL\_rev.22.comments49.  
corrections.10.#@\$%WHYDID  
ICOMETOGRADSCHOOL?????.doc



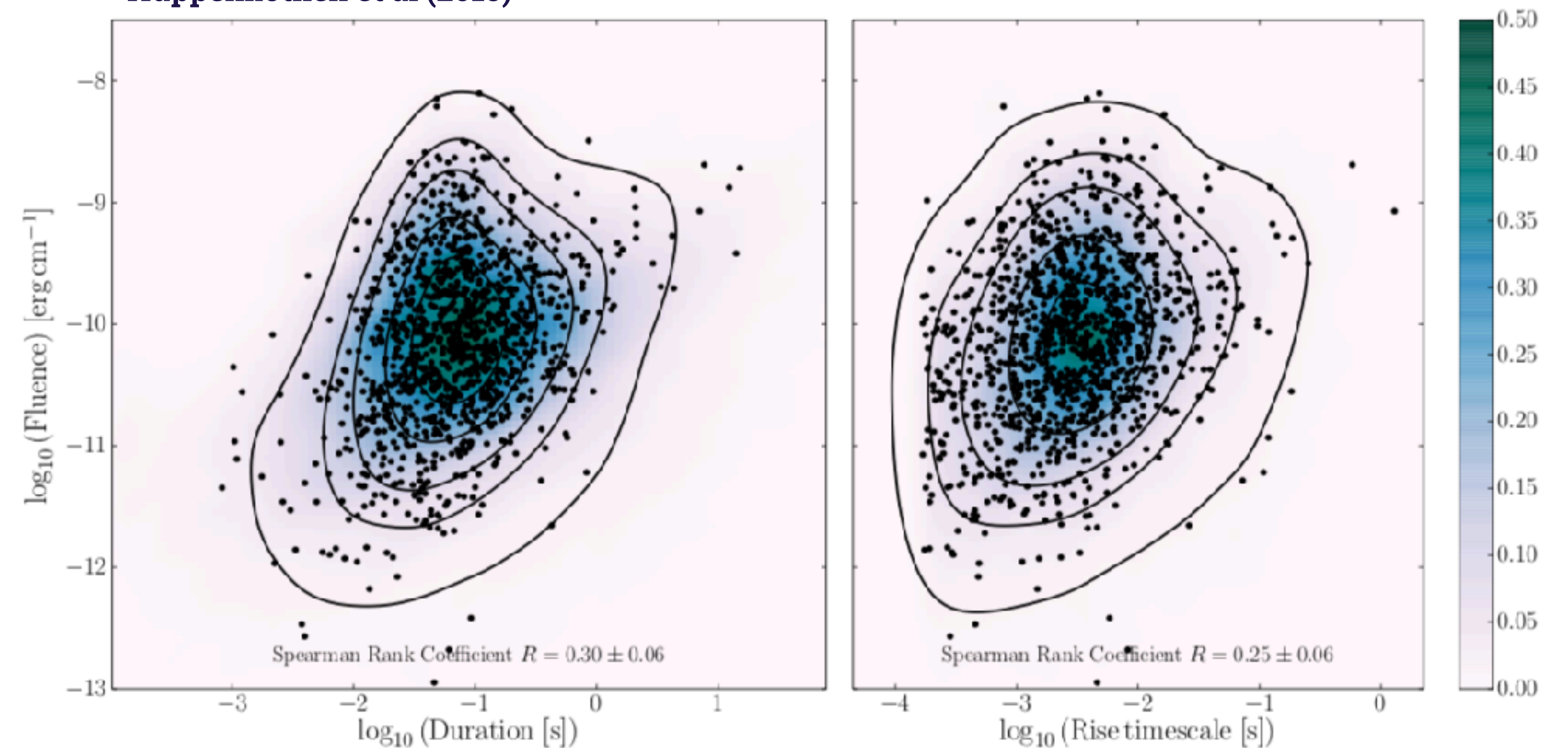
# A story in two figures ...

Huppenkothen et al (2013)



6 full days

Huppenkothen et al (2015)



15 minutes



**[www.menti.com](https://www.menti.com)**

**Code: 70 76 16**

**I need to work with  
different people on  
the same code/paper**

**My simulation code  
has different versions  
for different problems**

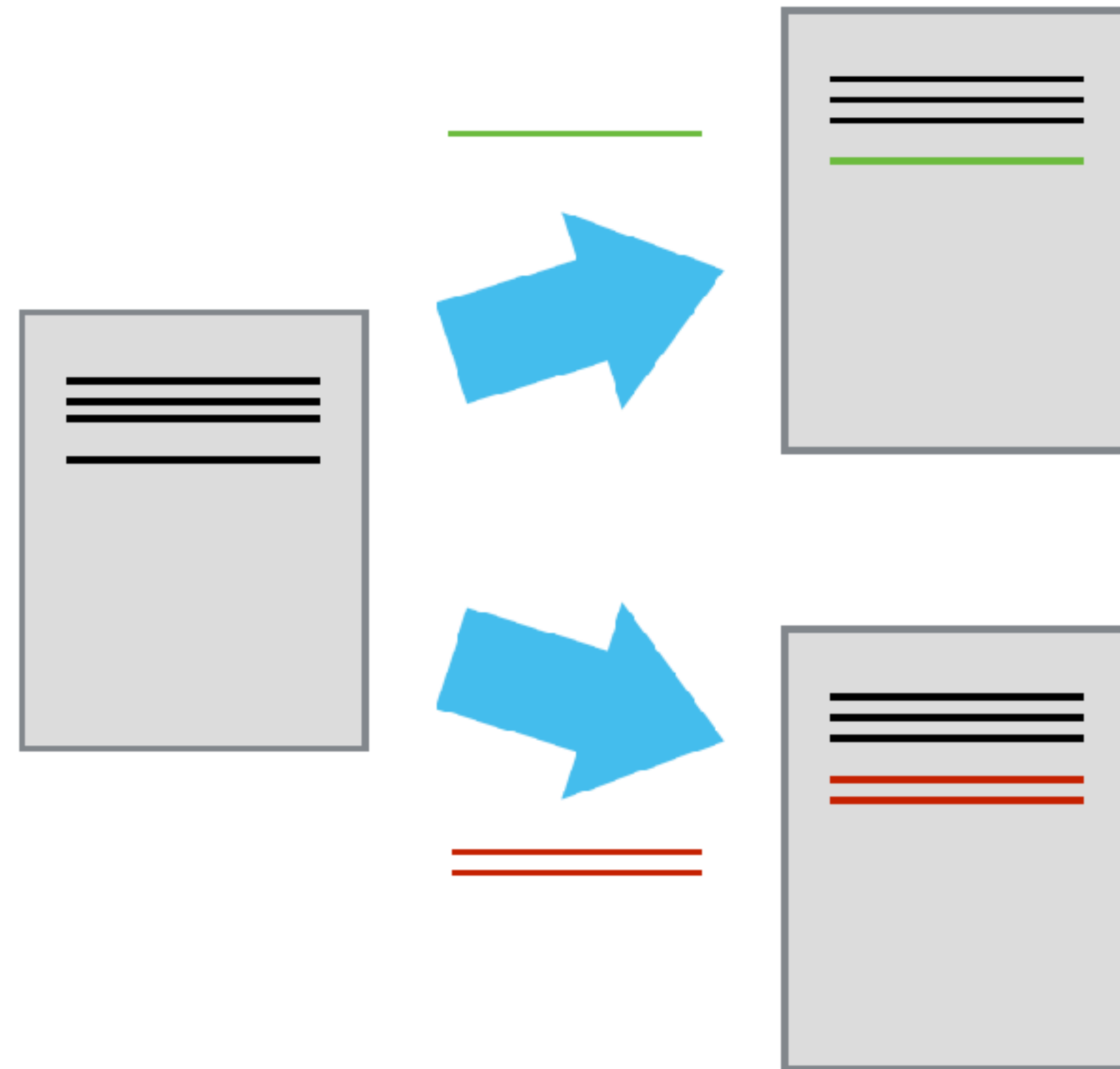
**I need to  
keep track  
of changes  
in my code**

**I need to be  
able to quickly  
back up my  
work**

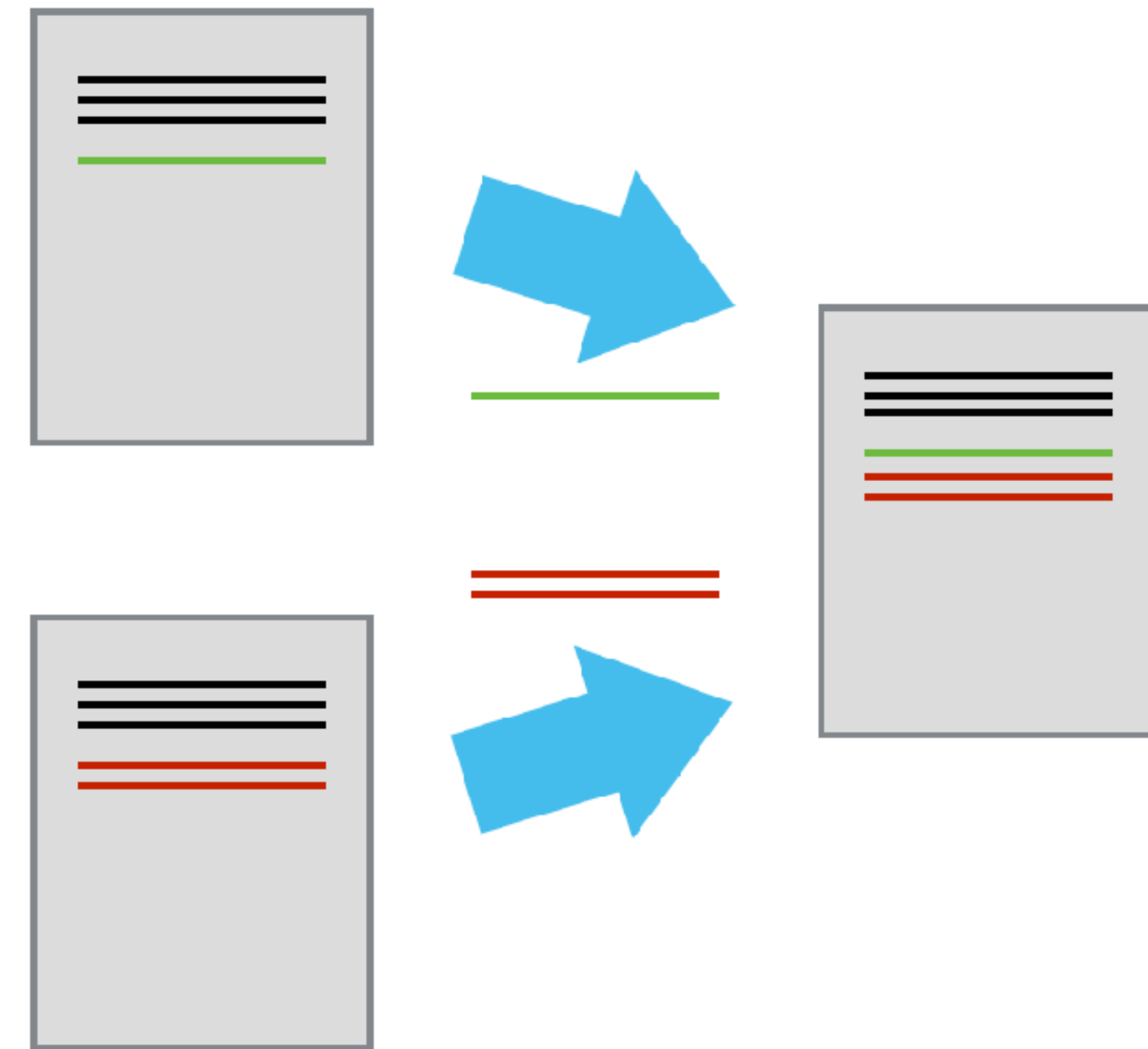
**My work needs  
to be accessible  
across different  
computers**

**I want to share my work with the scientific community**





**diverging work on  
different problems**



**merging changes from  
different authors**



# Version Control has a long history



1982



1990



2000



2005

# Git ecosystem



- + **nothing** committed to version control is ever **lost**\*
- + you can **track all changes**, who made them, and when
- + you can **revert easily** to any previous version, and compare versions
- + **automatically integrates changes** by multiple people, or queries the user in case of conflicts

\*unless you work really hard

**version control is the lab notebook of  
the digital world**



# UNIVERSAL MISSIONS



[https://commons.wikimedia.org/wiki/File:Planets\\_are\\_us.png](https://commons.wikimedia.org/wiki/File:Planets_are_us.png)

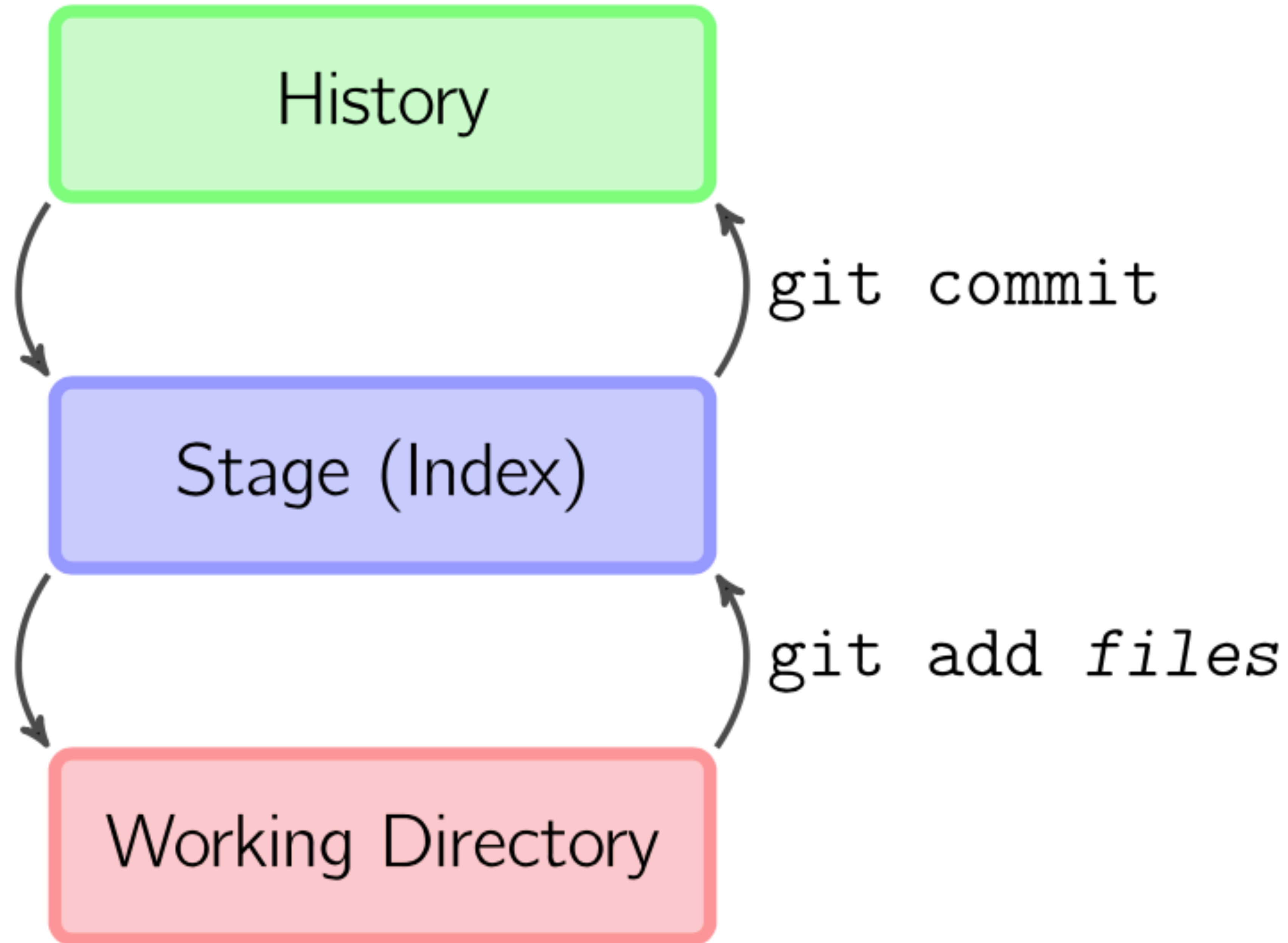
[https://img00.deviantart.net/95f6/i/2009/156/f/8/werewolf\\_vs\\_dracula\\_by\\_b\\_maze.jpg](https://img00.deviantart.net/95f6/i/2009/156/f/8/werewolf_vs_dracula_by_b_maze.jpg)

[https://commons.wikimedia.org/wiki/File:Mummy\\_icon\\_-\\_Noun\\_Project\\_4070.svg](https://commons.wikimedia.org/wiki/File:Mummy_icon_-_Noun_Project_4070.svg)

[https://commons.wikimedia.org/wiki/File:Lune\\_ico.png](https://commons.wikimedia.org/wiki/File:Lune_ico.png)



# Setting up git





# Exercises

[www.menti.com](https://www.menti.com)

98 94 06



# Exercises

## Committing Multiple Files

The staging area can hold changes from any number of files that you want to commit as a single snapshot.

1. Add some text to `mars.txt` noting your decision to consider Venus as a base
2. Create a new file `venus.txt` with your initial thoughts about Venus as a base for you and your friends
3. Add changes from both files to the staging area, and commit those changes.

# Exercises

## `bio` Repository

- Create a new Git repository on your computer called `bio`.
- Write a three-line biography for yourself in a file called `me.txt`, commit your changes
- Modify one line, add a fourth line
- Display the differences between its updated state and its original state.

# Exercises

[www.menti.com](http://www.menti.com)

43 14 39

## Ignoring Nested Files

Given a directory structure that looks like:

### Bash

```
results/data  
results/plots
```

How would you ignore only `results/plots` and not `results/data` ?



# Exercises

**How is git push different  
from git commit?**

**What do you notice about the website with the  
summer school materials?**

**<https://github.com/collectiveastronomy/ATAMaterials>**



# Use cases

&lt;&gt; Code

! Issues 63

🔗 Pull requests 17

📊 Projects 0

📖 Wiki

🛡️ Security

Anything can happen in the next half hour (including spectral timing made easy)!

x-ray

astronomy

blackhole

pulsars

timeseries

astrophysics

fourier-analysis

fourier-transform

time-series

time-series-analysis

x-ray-binaries

neutronstars

data-analysis

blackholes

[Manage topics](#)

🔄 1,687 commits

🔗 21 branches

🏷️ 5 releases

👤 28 contributors

🏛️ MIT

Branch: master ▾

New pull request

Create new file

Upload files

Find File

Clone or download ▾



matteobachetti Merge pull request #418 from twongCMU/master ...

Latest commit 9c4d030 14 days ago

📁 astropy_helpers @ ba37342	Updated astropy-helpers to v3.2.1	21 days ago
📁 docs	Expanded the installation instructions, cleaned up readme some more	last month
📁 joss	Update paper.md	last month
📁 stingray	Have tests inspect an exception's e.value instead of just the exception.	14 days ago
📁 validation	Move here TOA validation	last year
📄 .gitignore	corrected folder spelling	last year
📄 .gitmodules	Add astropy_helpers submodule	3 years ago



 [StingraySoftware](#) / [stingray](#)

 Unwatch ▾

 Unstar

 Fork

 Code

 Issues 63

 Pull requests 17

 Projects 0

 Wiki

 Security

 Insights



Code review

# Accept Event Lists for periodograms #398

 Open

 matteobachetti wants to merge 5 commits into `master` from `accept_events_for_periodograms` 

 Conversation 12

 Commits 5

 Checks 0

 Files changed 6

+336 -42





matteobachetti commented on May 9 • edited ▾


Member +😊 ...


Event lists can now return a list (through a generator, so not all at once) of light curves from each of their GTIs.


This allows to use the existing machinery in `Average*spectrum` objects to iterate over these light curves and calculate the periodograms directly from events.


This is very useful in very long observations of objects with high-frequency variability, where the number of bins in the complete light curve can easily reach hundreds of millions.

-  matteobachetti added some commits on May 9
- 

 First draft of methods


e5b0b9f
- 



 Docstrings, docstrings everywhere


 a8e4bda



Reviewers



 dhuppenkothen


 

 abigailStev


Requested changes must be addressed to merge this pull request.

Assignees



No one—assign yourself

Labels



None yet

StingraySoftware / stingraypaper

- <> Code
- ! Issues 1
- 🔗 Pull requests 0
- 📁 Projects 0
- 📖 Wiki
- 🛡 Security
- 📊 Insights

Scientific papers

The Stingray paper (work in progress)

Edit

Manage topics

📁 114 commits

🌿 11 branches

📦 0 releases

👤 5 contributors

Branch: master ▾

New pull request


Create new file

Upload files

Find File

Clone or download ▾

 dhuppenkothen	Resubmission version	Latest commit 047b325 on May 10
📁 figures	Fixed units in labels	7 months ago
📁 notebooks	Associated code for plot fixes	7 months ago
📁 tex	Resubmission version	2 months ago
📄 .gitignore	Initial commit	2 years ago
📄 README.md	Update README.md	2 years ago

📖 README.md 

# The Stingray Paper



Scientific journals!

# [REVIEW]: stingray: A modern Python library for timing #1393

Closed

whedon opened this issue on Apr 18 · 43 comments



whedon commented on Apr 18 • edited ▾

Collaborator

+ 😊 ...

Submitting author: @dhuppenkothen (Daniela Huppenkothen)

Repository: <https://github.com/StingraySoftware/stingray>

Version: v0.1.3

Editor: @arfon

Reviewer: @Cadair

Archive: [10.5281/zenodo.3242835](https://zenodo.org/record/3242835)

## Status

JOSS 10.21105/joss.01393

Status badge code:

HTML: `<a href="http://joss.theoj.org/papers/90ccde24769778c954dc9830800e019e"><img src="http`  
Markdown: `[[status]](http://joss.theoj.org/papers/90ccde24769778c954dc9830800e019e/status.svg)`

## Assignees



arfon



Cadair

## Labels

AAS

accepted

review

## Projects

None yet

## Milestone




No milestone






 **katyhuff / wedding**  
forked from [justgrimes/wedding](#)



-  Code
-  Pull requests 0
-  Projects 0
-  Wiki
-  Security
-  Insights

open source wedding website. . .

 82 commits

 3 branches

 0 releases

 3 contributors

 View license

Branch: gh-pages ▾

New pull request



Create new file









Upload files

Find File

Clone or download ▾

This branch is 44 commits ahead of justgrimes:gh-pages.

 Pull request  Compare

 <b>katyhuff</b>	Adds brunch	Latest commit d095d27 on Apr 4, 2015
 <a href="#">asests</a>	added simple fan mockups	5 years ago
 <a href="#">css</a>	colors	5 years ago
 <a href="#">fonts</a>	switched themes	5 years ago
 <a href="#">images</a>	fixes icon size	5 years ago
 <a href="#">js</a>	fixes a bunch of stylistic stuff with the form. Turns it into somethi...	5 years ago
 <a href="#">.gitignore</a>	Adding a .gitignore with _site	5 years ago
 <a href="#">LICENSE.md</a>	added ixnblk's love logo	5 years ago

**Version control and publicly hosted  
repositories encourage collaboration, code  
reviews and testing**

**Version control and publicly hosted  
repositories enable open science and  
transparency**

# Things I **haven't** talked about



- what to do when there are conflicts
- branching
- pull requests
- hosting your own git server
- licensing code (<https://choosealicense.com>)
- unit testing
- documentation
- citing software
- ...

# Resources

- **Software Carpentry:** <http://swcarpentry.github.io/git-novice/>
- **SWC in Spanish:** <https://swcarpentry.github.io/git-novice-es/>
- **SWC for Mercurial:** <https://marklodato.github.io/visual-git-guide/index-en.html>
- **The Git Parable:** <http://tom.preston-werner.com/2009/05/19/the-git-parable.html>
- **Git Pro book (free online):** <https://git-scm.com/book/en/v2>
- **the official git website (with videos + resources):** <https://git-scm.com/doc>
- **UW Software Engineering Course:** <http://uwseds.github.io>
- **GitHub's Git Handbook:** <https://guides.github.com/introduction/git-handbook/>
- **many, many online tutorials + classes ...**





