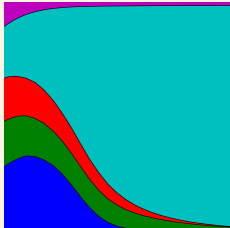
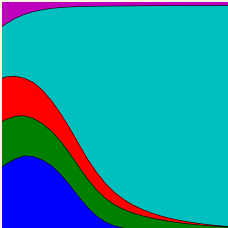


Reproducing Research on Cooperation

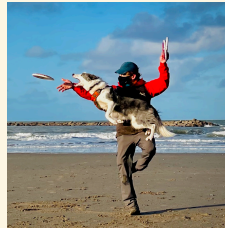
Vince: @drvinceknight



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Excel: Why using Microsoft's tool caused Covid-19 results to be lost

By **Leo Kellon**
Technology desk editor

🕒 5 October 2020



Kirsty MacLeod

@kirstyjean

Following



Me: sets up flawless heat competition trial,
lizards will fight over hot podium, there can
only be one winner!

Lizards:

#ALlizards2017



Kirsty MacLeod

@kirstyjean

Following



Me: sets up flawless heat competition trial,
lizards will fight over hot podium, there can
only be one winner!

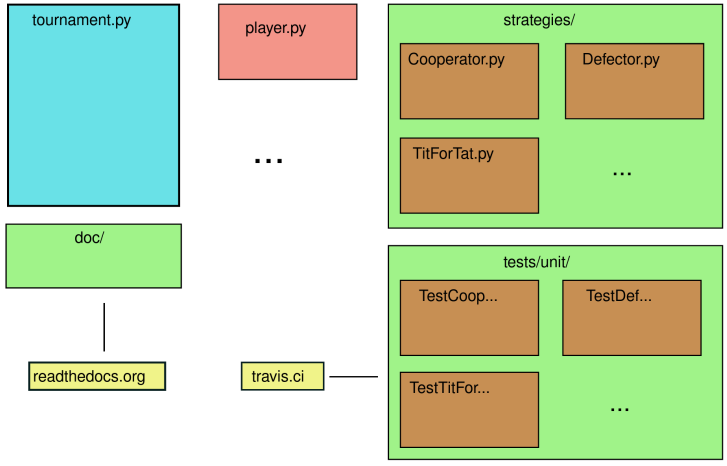
Lizards:

#ALlizards2017

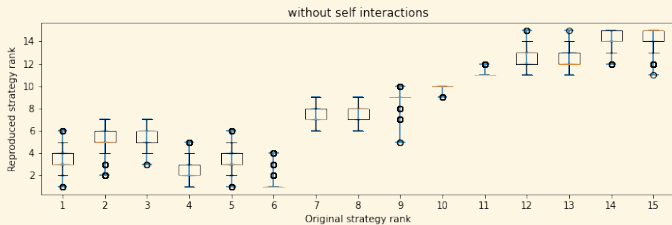
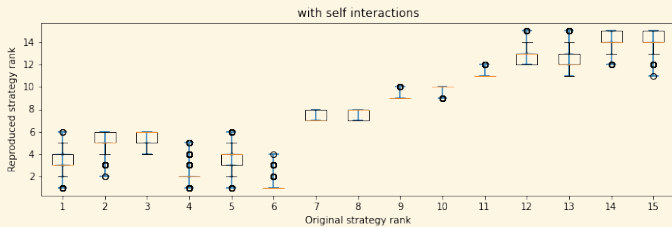
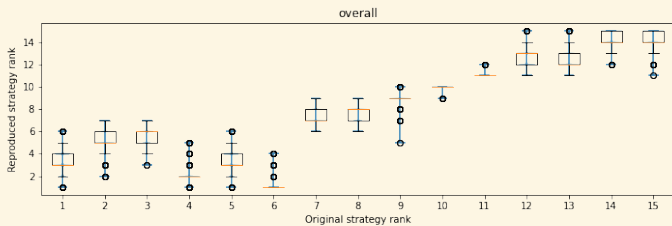


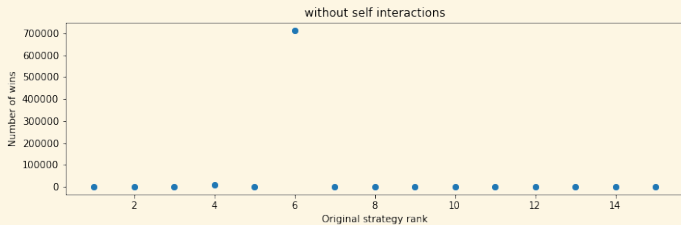
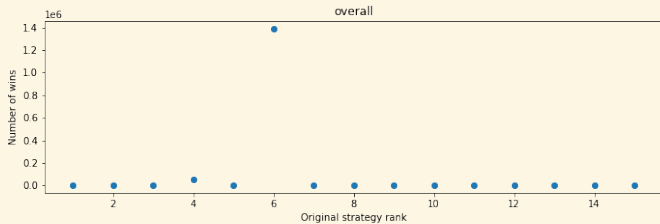
$$\begin{pmatrix} 3 & 0 \\ 5 & 1 \end{pmatrix}$$

(Slide used at PyCon 2015)

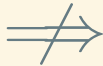


Axelrod, Robert. "Effective choice in the prisoner's dilemma."
Journal of conflict resolution 24.1 (1980): 3-25.





Ambiguous description



Clear results

Robert Axelrod

Re: Source code for original strategies

To: Vincent Knight, Cc: axelrod-python@googlegroups.com



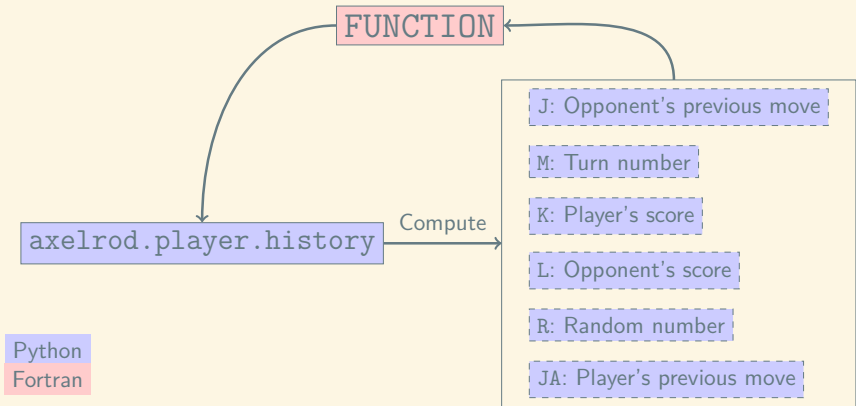
This message is from a mailing list.

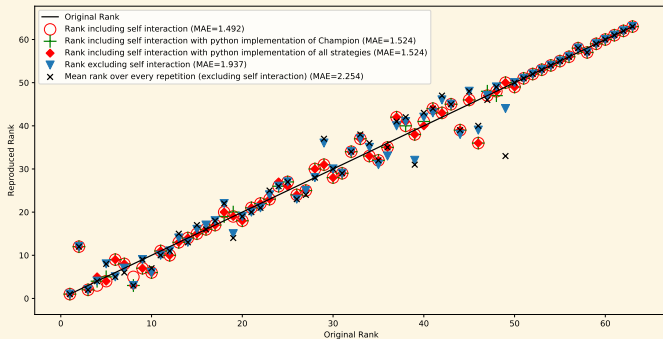
I don't have the first round. But the second round is on-line.

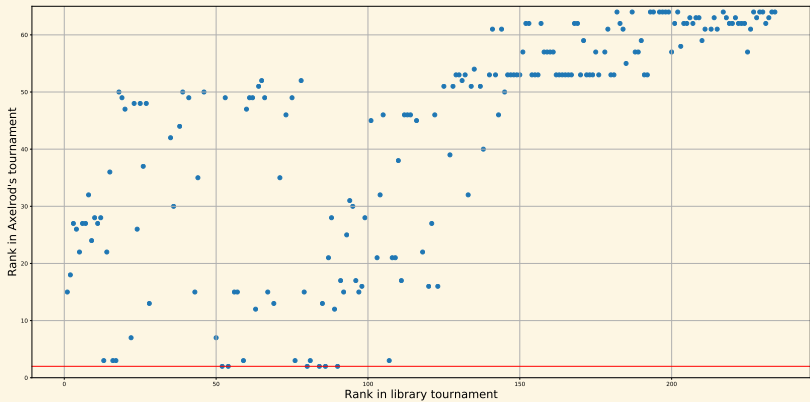
Best of success with your library.

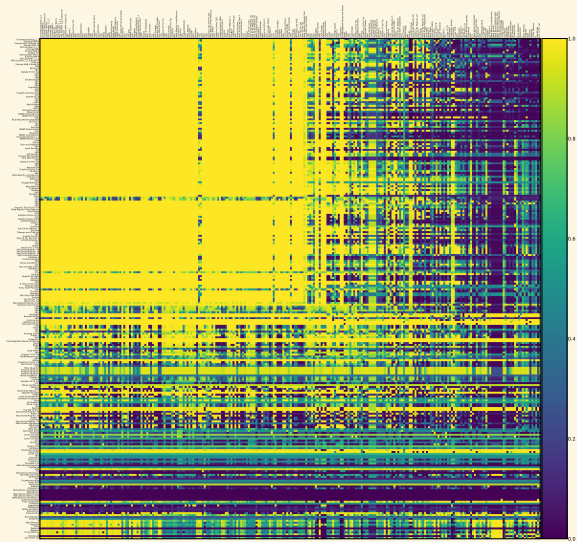
Axelrod, Robert. "More effective choice in the prisoner's dilemma."
Journal of conflict resolution 24.3 (1980): 379-403.

```
FUNCTION K92R(J,M,K,L,R, JA)
C BY ANATOL RAPOPORT
C TYPED BY AX 3/27/79 (SAME AS ROUND ONE TIT FOR TAT)
c replaced by actual code, Ax 7/27/93
c T=0
c K92R=ITFTR(J,M,K,L,T,R)
  k92r=0
  k92r = j
c test 7/30
c write(6,77) j, k92r
c77 format(' test k92r. j,k92r: ', 2i3)
RETURN
END
```

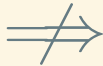









Available code



Exact results



Ian Holmes

@ianholmes

 Follow

You can download our code from the URL supplied. Good luck downloading the only postdoc who can get it to run, though [#overlyhonestmethods](#)

RETWEETS

339

LIKES

123



8:52 a.m.

Retweet



What do we do?

What do we do?





Tim Head

@betatim

Following



The thing to take away from this whole panicked GitHub (backed by one of the largest software companies in the world) to GitLab (VC funded startup) exodus: you should be putting your code into long term archival like [@ZENODO_ORG](#) if you care about it being available

9:10 PM - 5 Jun 2018

3 Retweets 14 Likes



5



3



14





James Campbell

@JamesCampbell95

Following



Finally, they use [@opentimestamps](#) to submit hashes of the manuscript and source [#Git](#) commit to the [#Bitcoin](#) [#Blockchain](#). These timestamps are immutable and irrefutable proof that the specified version of the manuscript existed at the specified time.

4/4

5:57 PM - 15 May 2018

1 Retweet 17 Likes



2



1



17





Lego Grad Student

@legogradstudent

Following



Heeding some of your suggestions about version control issues, I've just tried installing git.

I can't help but feel that it is designed to be borderline inaccessible so that people who do use it can be smug.

7:46 PM - 30 Mar 2018

81 Retweets 1,016 Likes



93 81 1.0K



Tweet your reply

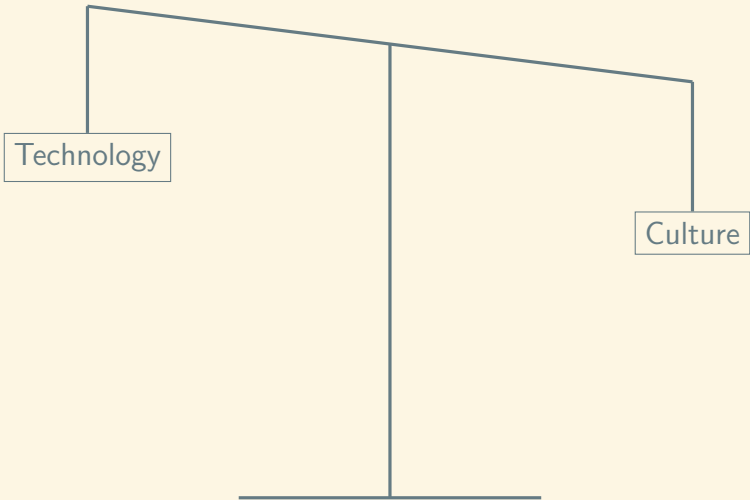


Lego Grad Student @legogradstudent · Mar 31



Interacting with a deluge of impassioned version control proselytizers has led to one of the most alarming days I have ever spent on Twitter.

13 11 237



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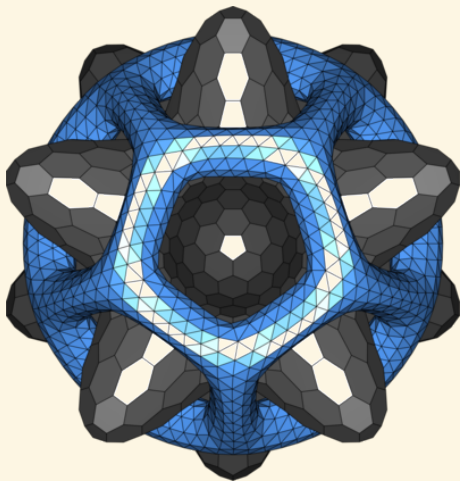
<https://www.software.ac.uk/>



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<http://rse.ac.uk/>

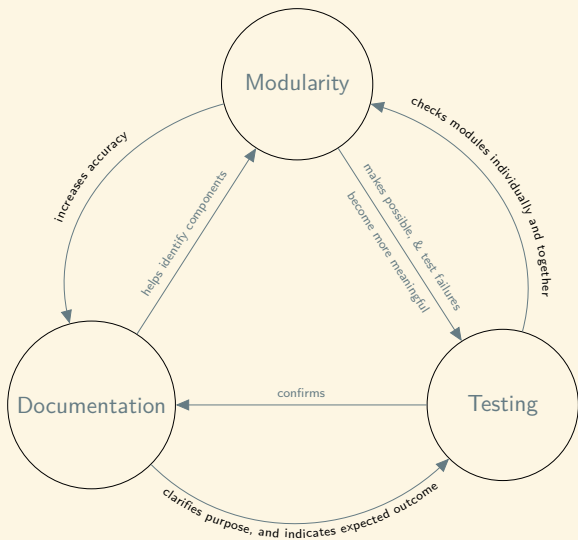


<http://joss.theoj.org/>



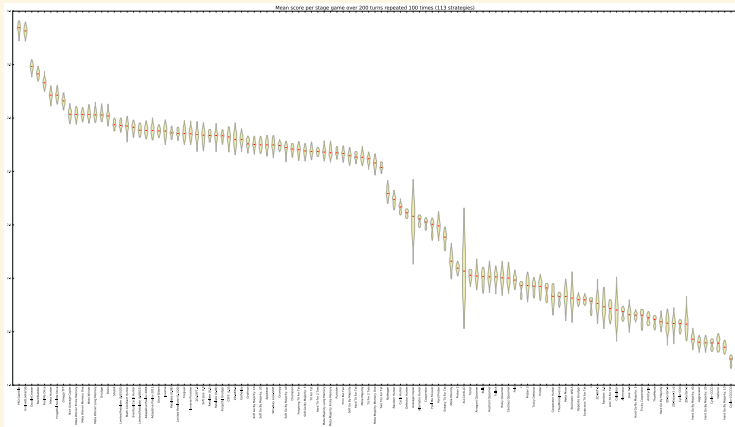
**THE
CARPENTRIES**

<https://carpentries.org/>

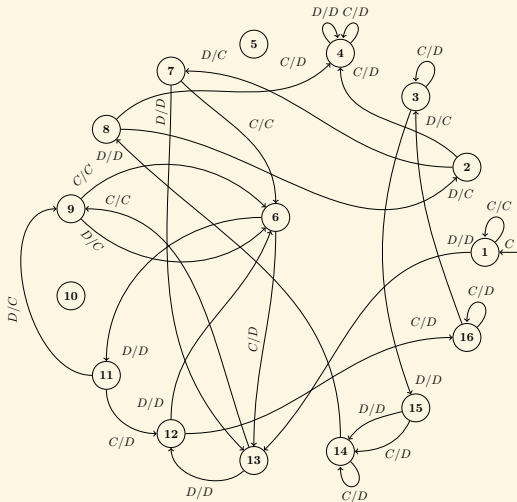


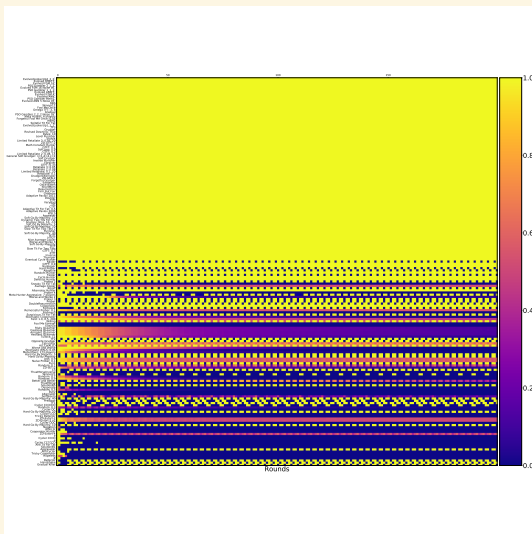
For example...

Knight, Vincent Anthony, et al. "An open framework for the reproducible study of the iterated prisoner's dilemma." *Journal of Open Research Software* 4.1 (2016).

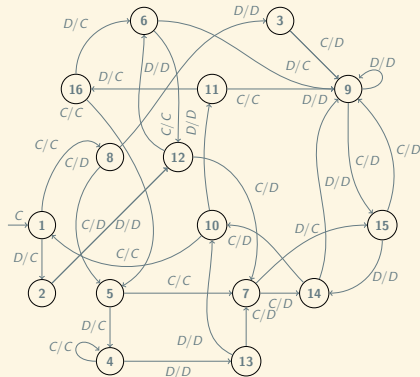


Harper, Marc, et al. "Reinforcement learning produces dominant strategies for the Iterated Prisoner's Dilemma." PLoS one 12.12 (2017): e0188046.





Knight, Vincent, et al. "Evolution reinforces cooperation with the emergence of self-recognition mechanisms: An empirical study of strategies in the Moran process for the iterated prisoner's dilemma." PloS one 13.10 (2018): e0204981.



Some conclusions

Code should (verifiably) do
what you think it does.

Open code makes for better
research.

Julie Rymer - @Chadys - (10 May 2017):

And I really wanted to thank you all, I discovered your project because of a course where we needed to participate in an open source project, and I had the occasion to compare the welcome me and my coworkers received here compared to other people from my class who worked on different project. And I've got to said you are awesome on that part and on the help your provide to newbies I like your project so I'll try to continue to contribute now and then !

- ▶ @NikoletaGlyn
- ▶ @opcampbell
- ▶ marcharper.codes
- ▶ github.com/Axelrod-Python/Axelrod
- ▶ axelrod.readthedocs.io

@drvinceknight

- ▶ software.ac.uk
- ▶ rse.ac.uk
- ▶ carpentries.org
- ▶ joss.theoj.org