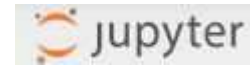


See powerpoint PDF for background information



Place to get code for activity - run R in jupyter notebook:

https://mybinder.org/v2/gh/jennifer-bio/SIR_workshop/HEAD
<https://rnotebook.io/anon/ea9dafdf646c3cc6/notebooks/Welcome-CopyXXX.ipynb>

Replace XXX with number - raise hand when asked to get a number

If you do not want to code but explore parameters:

<https://alhill.shinyapps.io/COVID19seir/>

Combination of makes **Set transmission rates...** makes up beta

Combination of **Set clinical parameters...** makes gamma

Download code for future: your current work,

https://github.com/jennifer-bio/SIR_workshop

Interesting things to learn and some places to go after conference to continue learning:

Background knowledge related to this activity

- SIR model
 - Adding compartments
<https://towardsdatascience.com/infectious-disease-modelling-beyond-thebasic-sir-model-216369c584c4>
 - Pre made R starting code <https://cran.r-project.org/web/packages/shinySIR/vignettes/Vignette.html>
- Cell biology
- Viruses in people
 - Short article
<https://www.thepartnershipineducation.com/resources/immune-system>
 - Full course <https://www.edx.org/course/viruses-how-to-beat-them-cells-immunity-vaccines>



Technical skills - shares skills with data science

- Computer ideas/introductory algorithms practice - drag and drop scratch
<https://scratch.mit.edu/>
- Computer coding - python and R
 - <https://www.codecademy.com/>
 - <https://www.dataquest.io>
 - Edx - a few course examples I have not looked into
 - <https://www.edx.org/course/programming-for-everybody-getting-started-with-pyt>
 - <https://www.edx.org/course/python-basics-for-data-science>
 - Partial course available online for introduction to python:
<https://www.cs.hmc.edu/twiki/bin/view/CS5> and
with biology motivated problems:
<https://www.cs.hmc.edu/twiki/bin/view/CS5Green>
(textbook completes the information)
- Statistics

