Julia and Python on Google Colab

Hiroyuki Chihara (University of the Ryukyus, Okinawa Island, Japan)

The goal of this workshop is to provide participants with hands-on experience in computational thinking using modern high-performance programming languages and interactive notebooks.

More concretely, we provide Jupyter Notebooks for Julia and Python, which participants can run directly on Google Colab without any local installation. The notebooks cover a variety of topics, including the Collatz conjecture, singular value decomposition and wavelet decomposition of RGB images, public data processing, the central limit theorem, and Weyl's equidistribution theorem.

Participants only need a Google account and a device such as a laptop, tablet, or smartphone. The workshop materials are also designed so that participants can explore and reuse them independently at any time by following the instructions available on GitHub.

GitHub

Bookmarking this page is recommended.

https://github.com/fiomfd/hands-on/

- Julia & Jupyter Notebook: **hands-on_julia.ipynb**
- Python & Jupyter Notebook: **hands-on_python.ipynb**
- Julia & Pluto: hands-on_pluto.jl
- Link to **Google Colab**
- Links to the html versions of the interactive notebooks

Jupyter Notebooks on Google Colab

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https://colab.research.google.com/github/fiomfd/hands-on/

Julia & Jupyter Notebook

You need to do the following.

1. Install Julia in your Google Colab.
2. Change Runtime from Python to Julia.
3. Install packages in the Julia in your Google Colab.
4. Load packages.

Then you can use Julia on your Google Colab. The slider does not work, so you will create movies instead. The experience of Julia in this workshop is similar to seeing the html version of a used file.

Python & Jupyter Notebook

You can use this immediately. First, run the cell to load the packages. Sliders are available and used in some cells.