

Running Jupyter Notebooks using Binder

OpenMendel Workshop
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Tutorials in the Cloud

Our tutorials are found on the github site:

<https://github.com/OpenMendel/ASHG-OpenMendelWorkshop-2020-Oct>

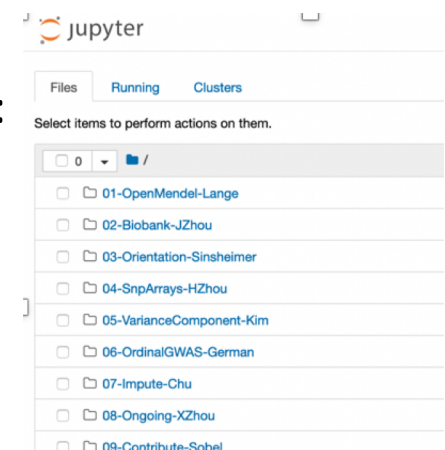
To run them without having to install Julia locally, we created a cloud version using Binder. Click on the icon:



You should then see:



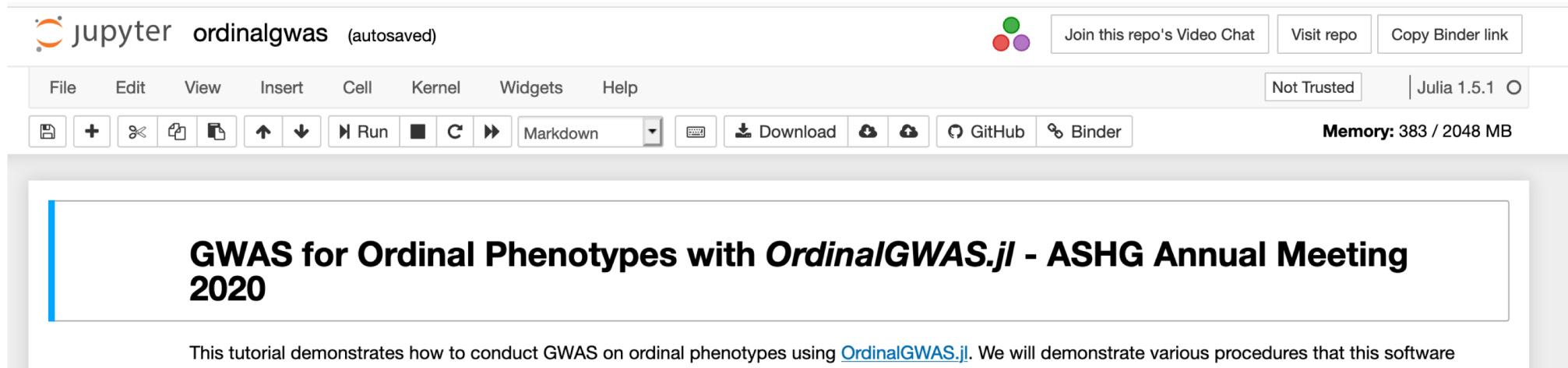
and then active directories:



Opening a Jupyter Notebook

Click on the directory for the tutorial you wish to run.

Then click on the ipynb file. You will then see something like:



The screenshot displays the Jupyter Notebook interface. At the top, the browser address bar shows 'jupyter ordinalgwas (autosaved)'. To the right of the address bar are three buttons: 'Join this repo's Video Chat', 'Visit repo', and 'Copy Binder link'. Below the address bar is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Cell', 'Kernel', 'Widgets', and 'Help'. To the right of the menu bar is a 'Not Trusted' warning and the text 'Julia 1.5.1'. Below the menu bar is a toolbar with various icons for file operations (save, new, open, save as, up, down), execution (run, stop, refresh, next), and other functions (Markdown, Download, GitHub, Binder). To the right of the toolbar is a memory usage indicator: 'Memory: 383 / 2048 MB'. The main content area of the notebook shows a title box with the text 'GWAS for Ordinal Phenotypes with *OrdinalGWAS.jl* - ASHG Annual Meeting 2020'. Below the title box is a paragraph of text: 'This tutorial demonstrates how to conduct GWAS on ordinal phenotypes using [OrdinalGWAS.jl](#). We will demonstrate various procedures that this software

Executing a Command in the Jupyter Notebook

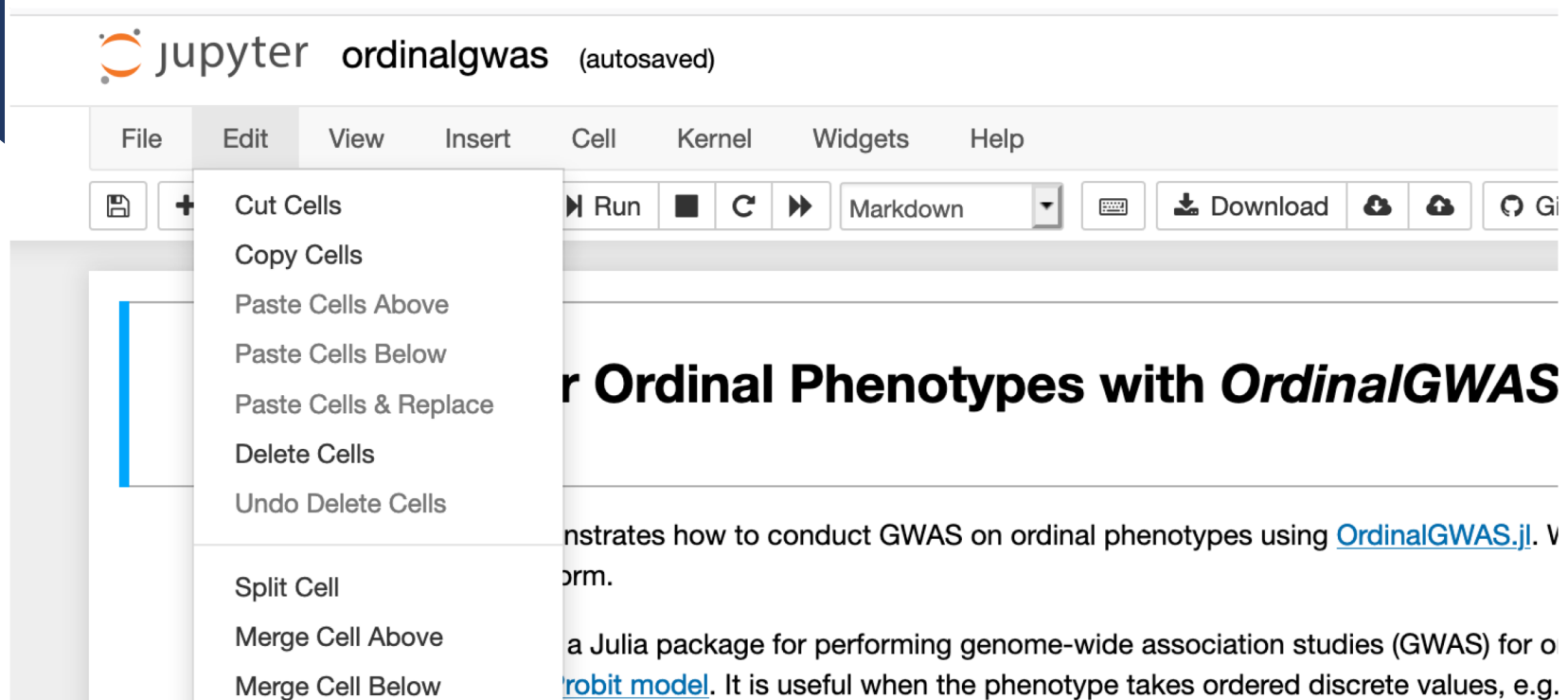
To execute a command put cursor within a cell and press SHIFT-RETURN

```
In [ ]: # for use in this tutorial  
using CSV, OrdinalGWAS, SnpArrays|
```

A star denotes an actively running code cell:

```
In [*]: # for use in this tutorial  
using CSV, OrdinalGWAS, SnpArrays
```

Drop Down Menus Provide Many Useful Commands:



Important: The Cloud Kernel will stop Working if the Jupyter Notebook is Inactive

Each tutorial is designed run in a few minutes. If you pause, you might see this:

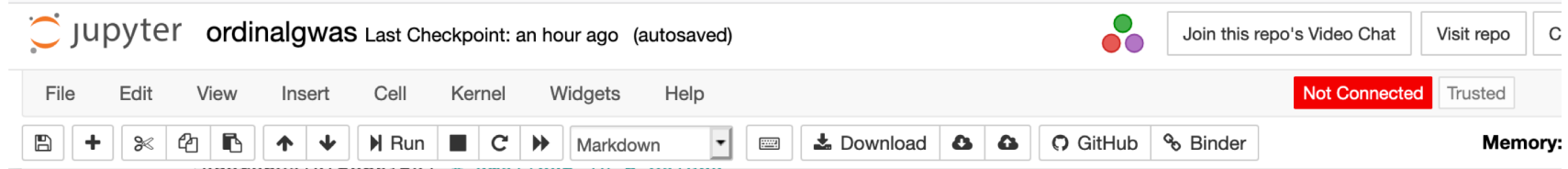
Connection failed



A connection to the notebook server could not be established. The notebook will continue trying to reconnect. Check your network connection or notebook server configuration.

Or:

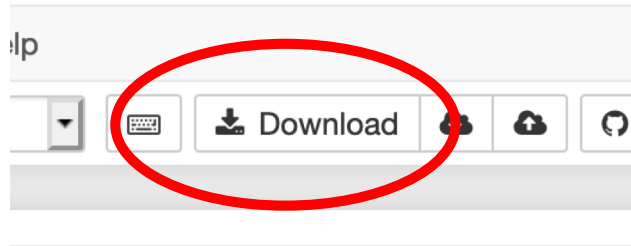
OK



You will need to relaunch Binder and you will have lost your work. This will not occur when you run Julia and Jupyter notebooks from your local environment.

When Finished Running a Tutorial

You can download
your work



Or print it by going to the file tab
and selecting **print preview**

To close go to the file tab
and select **close and halt**

