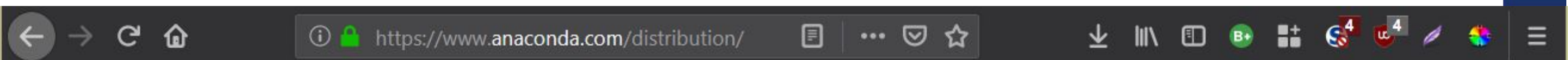


# Métodos Matriciais e Análise de Clusters

## Preparação do ambiente

Laura de Oliveira F. Moraes

# Instalando em casa



Windows



macOS



Linux

## Python 3.7 version

Download

64-Bit Graphical Installer (662 MB)

32-Bit Graphical Installer (546 MB)

## Python 2.7 version

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64-Bit Graphical Installer (587 MB)

32-Bit Graphical Installer (493 MB)


## Get Started with Anaconda Distribution



# Anaconda Navigator

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Search Environments

base (root) ▶

cluster\_env

cluster\_env

cluster\_env2

mt

mt2

notebook\_novo3

python2

Installed

Channels

Update index...

Search Packages

Name	T	Description	Version
✓ _ipyw_jlab_nb_ext...	○	A configuration metapackage for enabling anaconda-bundled jupyter extensions	0.1.0
✓ alabaster	○	Configurable, python 2+3 compatible sphinx theme.	↗ 0.7.11
✓ anaconda	○	Simplifies package management and deployment of anaconda	↗ 5.3.1
✓ anaconda-client	○	Anaconda.org command line client library	1.7.2
✓ anaconda-project	○	Tool for encapsulating, running, and reproducing data science projects	0.8.2
✓ appdirs	○	A small python module for determining appropriate platform-specific dirs.	1.4.3
✓ asn1crypto	○	Python asn.1 library with a focus on performance and a pythonic api	0.24.0
✓ astroid	○	A abstract syntax tree for python with inference support.	↗ 1.6.5
✓ astropy	○	Community-developed python library for astronomy	↗ 2.0.8
✓ atomicwrites	○	Atomic file writes.	↗ 1.2.1
✓ attrs	○	Attrs is the python package that will bring back the joy of writing classes by relieving you from the drudgery of implementing object protocols (aka dunder methods).	↗ 18.2.0
✓ automat	○	Self-service finite-state machines for the programmer on the go	0.7.0
✓ babel	○	Utilities to internationalize and localize python applications	2.6.0
✓ backcall	○	Specifications for callback functions passed in to an api	0.1.0

291 packages available

+

Clone

Import

Remove



```
conda create -n cluster_env python=3 jupyter scikit-learn pandas  
activate cluster_env  
conda config --add channels r  
conda install r  
conda install rpy2  
R
```

Dentro do R:



```
install.packages("devtools")  
devtools::install_github("IRkernel/IRkernel")  
IRkernel::installspec()  
quit()
```



# Inicie o Jupyter Notebook de dentro do Anaconda Navigator ou pelo prompt

The screenshot displays the Anaconda Navigator desktop application. At the top, the title bar reads "Anaconda Navigator" with standard window controls. Below the title bar is a menu bar with "File" and "Help". The main header features the "ANACONDA NAVIGATOR" logo and a "Sign in to Anaconda Cloud" button. A left sidebar contains navigation links: "Home" (active), "Environments", "Learning", and "Community". Below these are buttons for "Documentation" and "Developer Blog", and social media icons for Twitter, YouTube, and GitHub. The main content area is titled "Applications on cluster\_env2" with a "Channels" button and a "Refresh" button. It displays a grid of application cards:

- JupyterLab** (0.33.11): An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture. [Launch]
- Notebook** (5.6.0): Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis. [Launch]
- Qt Console** (4.4.1): PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more. [Launch]
- Spyder** (3.3.1): Scientific PYTHON Development EnviRonment. Powerful Python IDE with advanced editing, interactive testing, debugging and introspection features. [Launch]
- Glueviz** (0.13.3): Multidimensional data visualization across files. Explore relationships within and among related datasets. [Install]
- Orange 3** (3.19.0): Component based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox. [Install]

# Utilizando em nuvens

Entre em <https://colab.research.google.com> e clique em File -> Open Notebook -> GitHub

The screenshot shows the Google Colaboratory web interface. A modal window titled "GITHUB" is open, allowing users to search for and open notebooks from GitHub repositories. The modal has two tabs: "EXAMPLES" and "GITHUB". The "GITHUB" tab is active, showing a search bar with the text "lauramoraes". Below the search bar, there are dropdown menus for "Repository:" (showing "lauramoraes/Analise\_de\_Clusters") and "Branch:" (showing "master"). A checkbox labeled "Include private repos" is also present. Below these fields, a list of notebooks is displayed, each with a GitHub icon, a title, and a link to open the notebook. The first notebook is "1 - Modelagem/0 - Datasets.ipynb", which is highlighted. A button labeled "Open notebook" is visible below the first notebook. The modal also includes a "CANCEL" button at the bottom right.

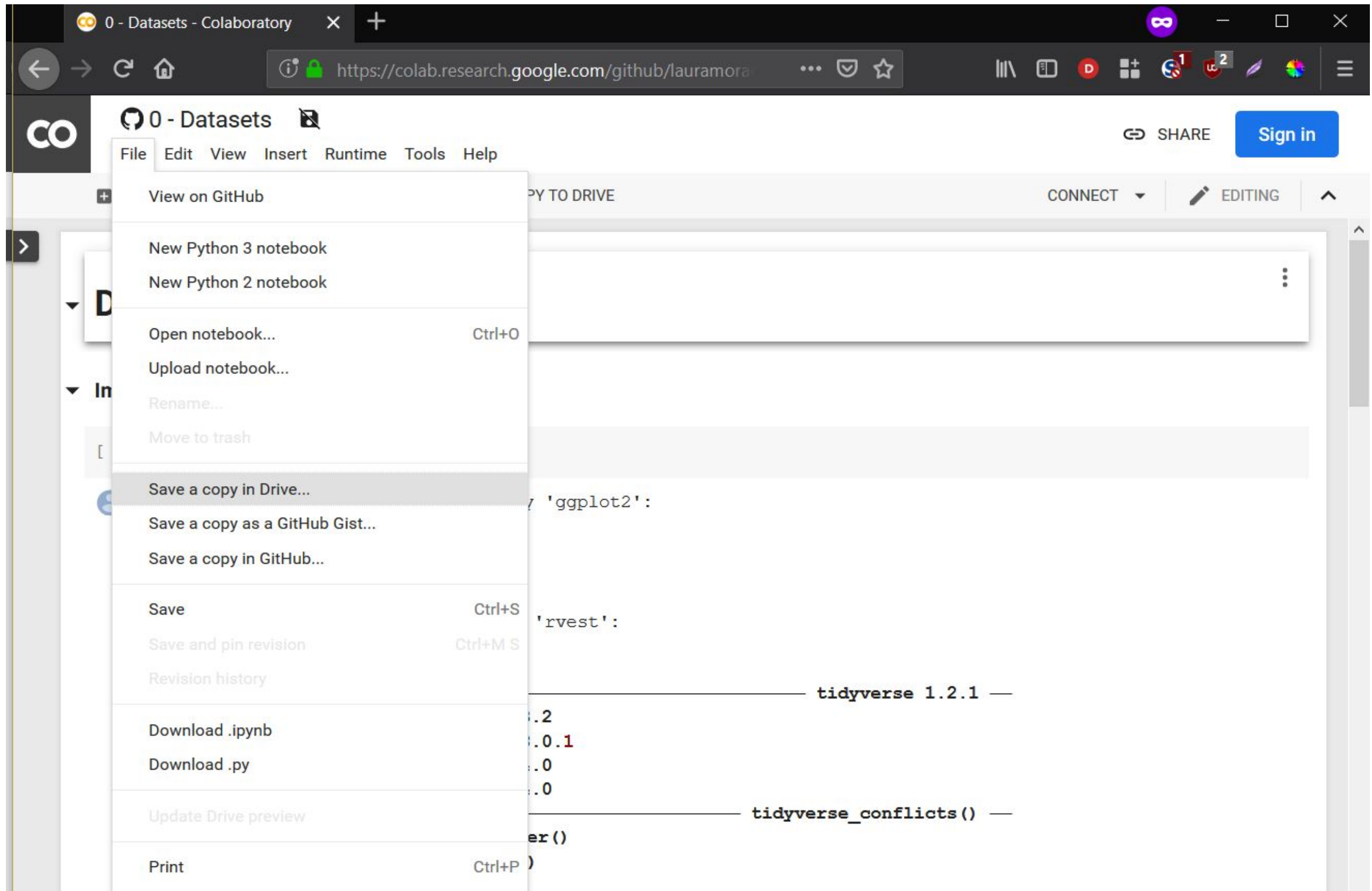
Examples of notebooks listed in the modal:

- 1 - Modelagem/0 - Datasets.ipynb
- 1 - Modelagem/1.0 - Análise inicial dos dados (Whisky).ipynb
- 1 - Modelagem/1.1 - Visualizando os dados (Whisky).ipynb
- Introdução ao Jupyter Notebook/2 - Misturando Python e R.ipynb

URL at the bottom: [https://colab.research.google.com/github/lauramoraes/Analise\\_de\\_Clusters/blob/master/1 - Modelagem/0 - Datasets.ipynb](https://colab.research.google.com/github/lauramoraes/Analise_de_Clusters/blob/master/1 - Modelagem/0 - Datasets.ipynb)



# Abra um notebook e faça uma cópia







## ▼ Reunindo e explorando alguns datasets disponíveis





Lista:

1. [Whisky](#)

## Jupyter

-  Requer instalação
-  Nova máquina precisa um novo setup
-  Dados permanentes
-  Acessa a dados no próprio computador e URLs

## Colab

-  Uso sem instalação
-  Acessível de qualquer navegador
-  Host reinicia e é preciso instalar bibliotecas novamente
-  Host reinicia e é preciso instalar bibliotecas novamente