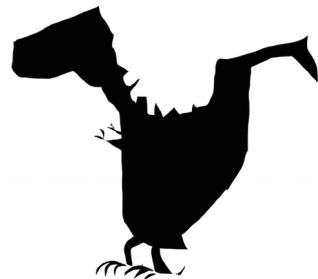
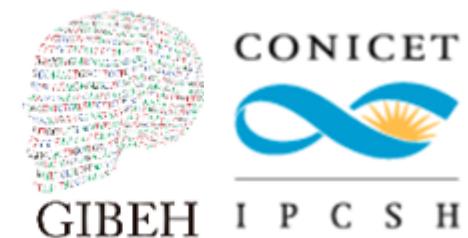
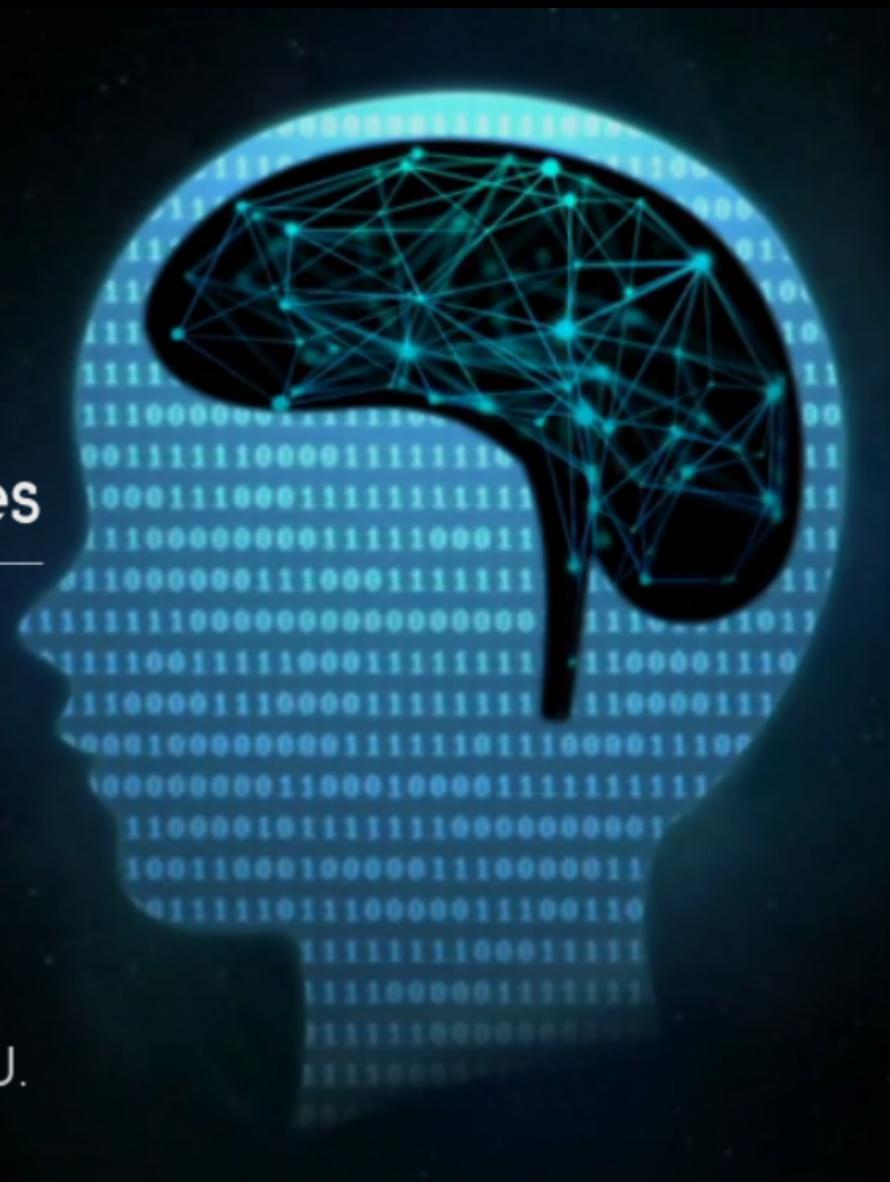


Neuroimagenes

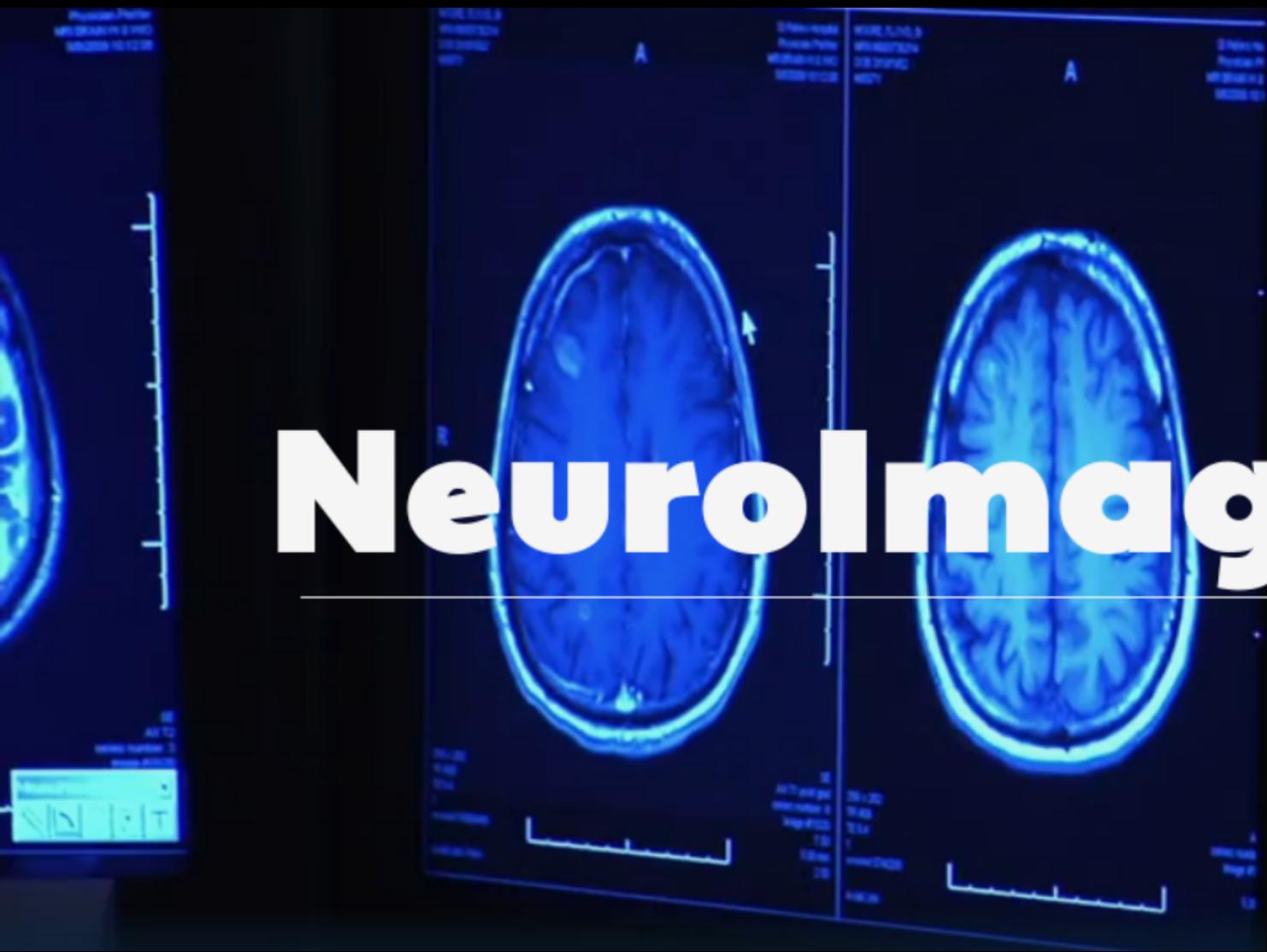
con
PYTHON

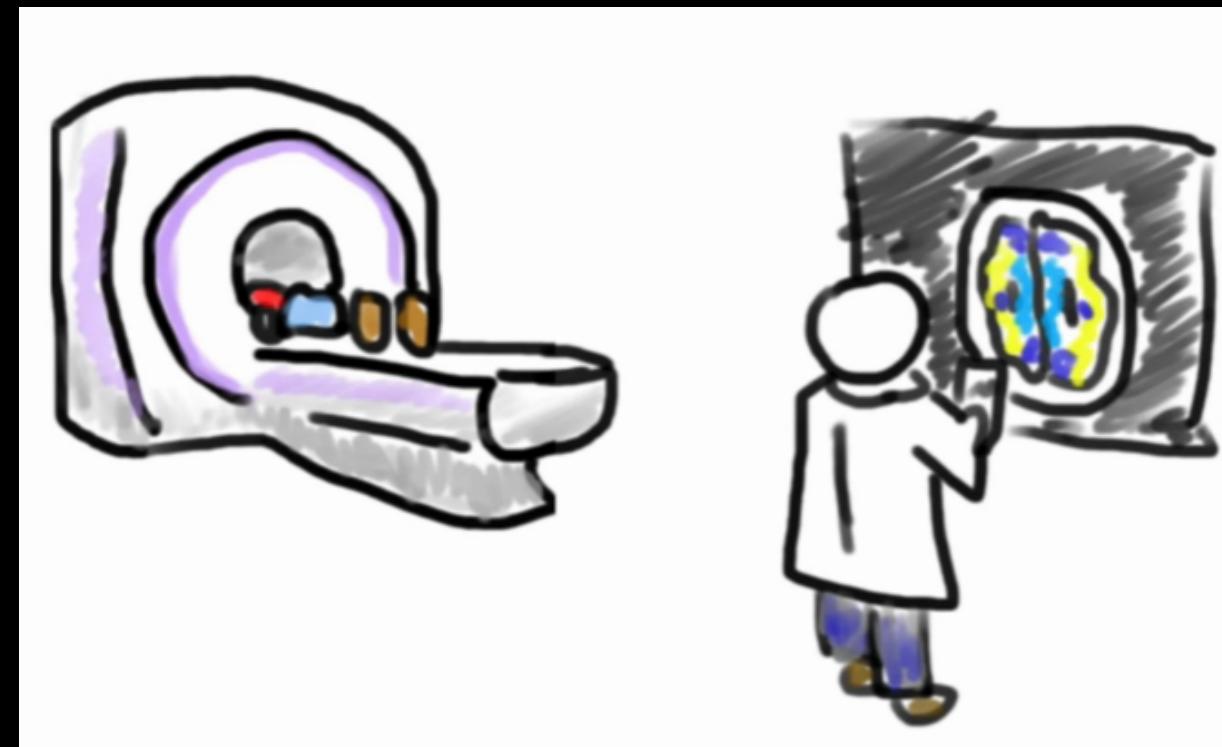
M. Alexandra Trujillo J.



Patagonia Python Meetup

NeuroImageN







MRI studies brain anatomy.

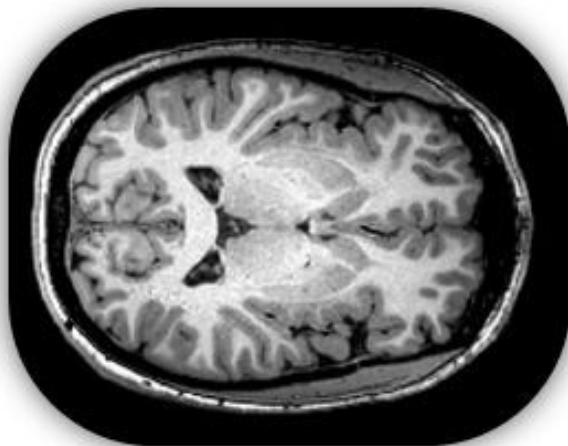


Functional MRI
(fMRI) studies brain
function.



MRI

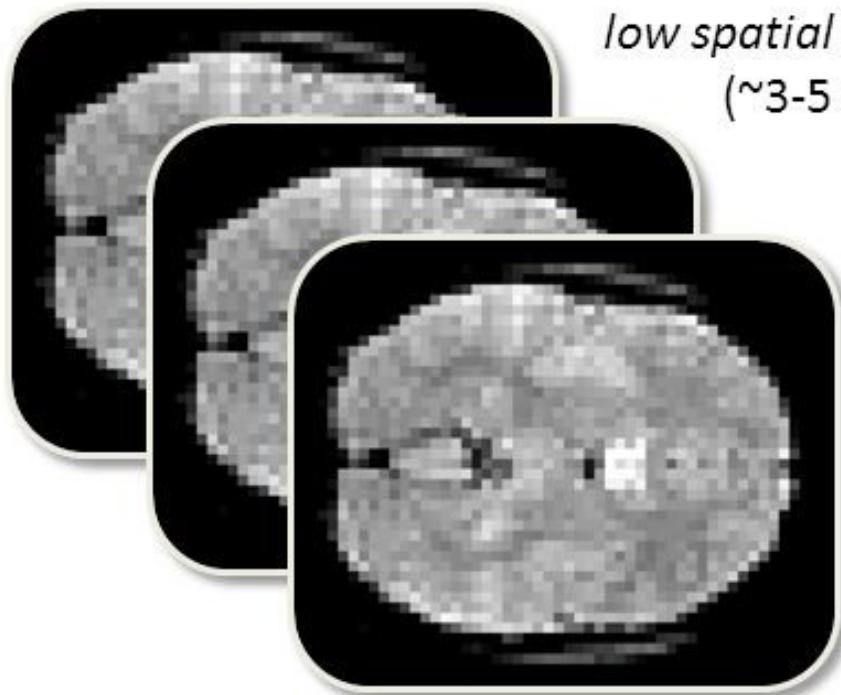
*high
spatial
resolution
(1 mm)*



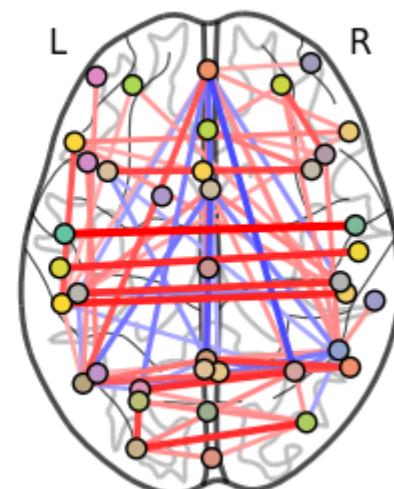
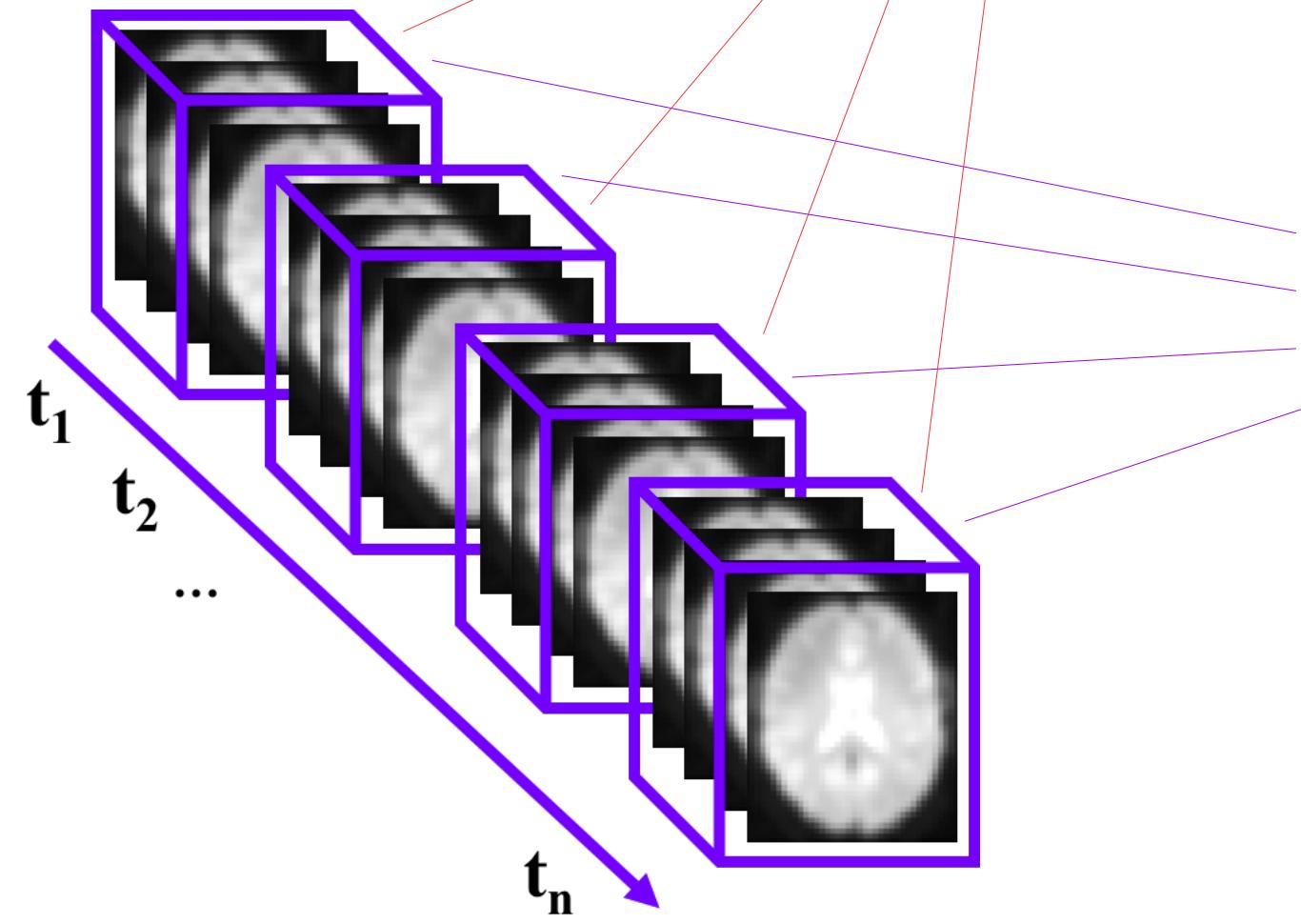
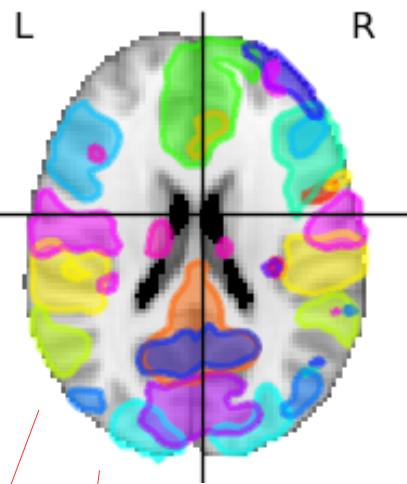
one 3D volume
(collected over several minutes)

fMRI

*low spatial resolution
(~3-5 mm)*

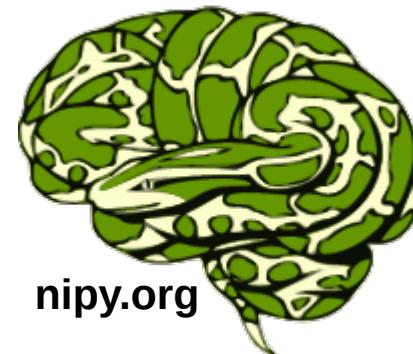


series of 3D volumes (i.e., 4D data)
(e.g., every 2 sec for 5 mins)





ni
learn

The logo consists of an orange circle containing the lowercase letters "ni" in white and "learn" in a black, cursive, sans-serif font.

nipy.org





Nilearn:

Machine learning for Neuro-Imaging in Python

SVM Ward clustering
Searchlight ICA
Nifti IO Datasets

Google Custom Search

Nilearn Home | User Guide | Examples | Reference

Nipy ecosystem

Nilearn is a Python module for **fast and easy statistical learning** on NeuroImaging data.

It leverages the **scikit-learn** Python toolbox for multivariate statistics with applications such as predictive modelling, classification, decoding, or connectivity analysis.

First Steps

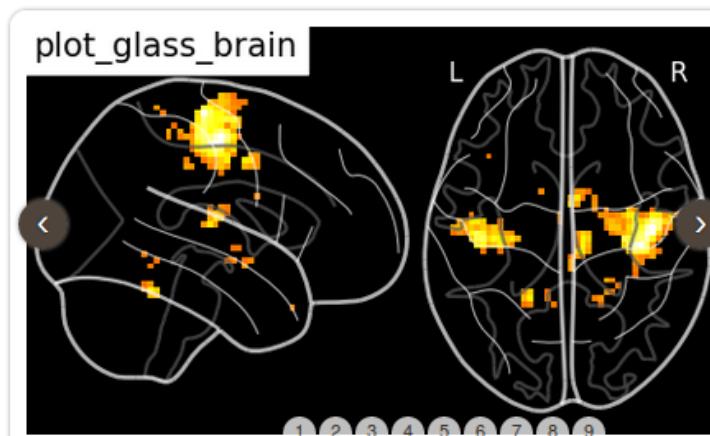
Get started with nilearn

Examples

[Visit our example gallery](#)

User Guide

[Browse the full documentation](#)



News

- June 14th 2018:** Nilearn 0.4.2 released
- March 12th 2018:** Nilearn 0.4.1 released

November 19th 2017: Nilearn 0.4 released

June 20th 2017: Nilearn 0.3.1 released

March 2014: Paper describing the concepts at the root of nilearn published in *Frontiers in Neuroinformatics*.

Ongoing development: What's new.

Software

¿Por qué usar ?

- Facilita el uso de técnicas avanzadas de aprendizaje automático, reconocimiento de patrones y estadísticas multivariadas en datos de neuroimágenes
- Se puede usar fácilmente en fMRI, MRI o datos VBM (morfometría basada en voxel).

Nilearn permite **obtener una matriz de características muy adecuada para hacer Machine Learning a partir de neuroimágenes**

Otras herramientas

Analysis and visualization of structural and functional neuroimaging data



