

Neuroinformatics resources for computational modellers

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&

<https://github.com/NeuralEnsemble/NeuroinformaticsTutorial/blob/master/CONTRIBUTORS.md>

Introduction

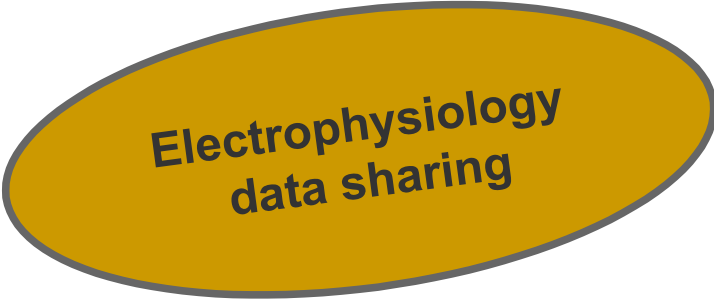
Neuroinformatics (like computational neuroscience, connectomics, etc.) means many different things to different people...



Brain Atlases



Neuroimaging



**Electrophysiology
data sharing**

Current tutorial

Focus on **neuroinformatics resources** which may be of use for those **creating and analysing computational models of neuronal systems**

Topics

Experimental datasets

Structured data from literature

Analysis tools

Simulation environments

Model sharing

Computing infrastructure

Open source initiatives

Web portals

Online tutorial


 [NeuralEnsemble](#) / [NeuroinformaticsTutorial](#)

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Part 1 - Resources for computational modellers

Introduction

[All slides in this section](#)

1.1 Experimental datasets

[All slides in this section](#)

Allen Cell Types Database

A multimodal database of single cell characterization to enable data-driven approaches to classification. Key features include: whole cell patch clamping, raw images and morphological reconstructions, a variety of abstract point models as well as biophysically detailed compartmental models, and single cell RNA sequencing data.

[Website](#) | [Slides](#)

Allen Brain Observatory

The Allen Brain Observatory is an in vivo survey of physiological activity in the mouse visual cortex, featuring representations of visually evoked calcium responses from GCaMP6-expressing neurons in selected cortical layers, visual areas and Cre lines.

[Website](#) | [Slides](#)

CRCNS

A public repository hosting freely available neurophysiology and behavioural data useful for computational neuroscience. Includes data from a variety of species and brain regions and species.

[Website](#) | [Slides](#)

HBP Neuroinformatics

Exercises

Practicalities

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