

Arnaud HUBERT

Phd student, applied maths for neuroscience

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<https://gitlab.inria.fr/ahubert>



Education

- **Phd: Applied mathematics for neuroscience, computational neuroscience** **2022 - now**
INRIA Lyon - UCBL Lyon 1, France
Endocannabinoid-mediated synaptic plasticity and its implication in fast learning.
I run synapse model simulations and analysis on Neuropixel data from mice.
- **Preprint**, Co-author with our colaborators from Laurent Venance's team, CIRB.
<https://www.biorxiv.org/content/10.1101/2024.07.10.602953v2>
- **Synacomp**, a Python package for applying arbitrary models to spike sorted data.
https://gitlab.inria.fr/aistrosight/synacomp/-/tree/v2025.1?ref_type=tags
- **Poster**, presented at the Bernstein conference 2024. "Exploring behavioral correlations with neuron activity through synaptic plasticity."
https://gitlab.inria.fr/ahubert/poster-bernstein-conference-2024/-/blob/main/poster_Bernstein_VF_HR3.png

2024: 3 weeks

remote online classes

- **Neuromatch Academy: computational neuroscience** **2024: 3 weeks**
remote online classes
Model Fitting, Generalized Linear Models, Dimensionality Reduction, Deep Learning, Linear Systems, Biological Neuron Models, Dynamic Networks, Bayesian Decisions, Hidden Dynamics, Optimal Control, Reinforcement Learning, Network Causality & Graduation.
- **Master graduation internship at INRAE** **2022: 6 months**
INRAE - Rennes, France
Programming with R, Working on satelitte spatial data, Gaussian free field.
- **Master's degree: Applied matematics for biology and medecine** **2020 - 2022**
Claude Bernard University - Lyon 1, France
Statistics, Stochastic process, Analysis.

Teaching

2021 - 2025

Claude Bernard University - Lyon 1, France

- **Seminar teacher at Lyon 1 University:** 50 hours of Algebra - D1. 6 h of Calculus - D1. 6 hours of probability - D3.
- **Private teacher:** I gave private teaching in maths and physics. Mostly final year level.

University community life

2018 - 2020

Nantes University, France

- **Mathematics club:** Weekly metting to solve problems.
Vulgarization session
- **Student tutoring:** I gave volunteer help to post graduate student in maths
- **Redactor in the student gazette:** I held a bi-monthly colum about math - club and stories

Skills

- **Languages:** French: native; English: B2

- **Programming:** Python; R