

# Arnaud HUBERT

## Phd student, applied maths for neuroscience

✉ arnaud.hubert@inria.fr



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



### Education

- **Phd: Applied mathematics for neuroscience, computational neuroscience**  
Endocannabinoid-mediated synaptic plasticity and its implication in fast learning.  
I run synapse model simulations and analysis on Neuropixel data from mice.  
**2022 - now**  
**INRIA Lyon - UCBL Lyon 1, France**
- **Preprint**, Co-author with our collaborators 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](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](https://gitlab.inria.fr/ahubert/poster-bernstein-conference-2024/-/blob/main/poster_Bernstein_VF_HR3.png)

- **Neuromatch Academy: computational neuroscience**  
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.  
**2024: 3 weeks**  
**remote online classes**
- **Master graduation internship at INRAE**  
Programming with R, Working on satellite spatial data, Gaussian free field.  
**2022: 6 months**  
**INRAE - Rennes, France**
- **Master's degree: Applied mathematics for biology and medicine**  
Statistics, Stochastic process, Analysis.  
**2020 - 2022**  
**Claude Bernard University - Lyon 1, France**

### Teaching

- **Seminar teacher at Lyon 1 University**: 50 hours of Algebra - D1.  
6 h of Calculus - D1. 6 hours of probability - D3.  
**2021 - 2025**  
**Claude Bernard University - Lyon 1, France**
- **Private teacher**: I gave private teaching in maths and physics. Mostly final year level.

### University community life

- **Mathematics club**: Weekly meeting to solve problems.  
Vulgarization session  
**2018 - 2020**  
**Nantes University, France**
- **Student tutoring**: I gave volunteer help to post graduate student in maths
- **Redactor in the student gazette**: I held a bi-monthly column about math - club and stories

### Skills

- **Languages**: French: native; English: B2
- **Programming**: Python; R