

## 2022-2023 Theoretical neuroscience schedule

Every thursday, lecture 13h30-15h30,

TD 15h45-17h, Esther Poniatowski

### Fundamentals

22-sept	Lecture 1 - Overview	Vincent Hakim
29-sept	Lecture 2 - Neurons	Vincent Hakim
6-oct	Lecture 3 - Synapses	Vincent Hakim
13-oct	Lecture 4 - Excitatory-Inhibitory Networks	Jonas Ranft
20-oct	Lecture 5 - Rate models	Jonas Ranft
27-oct	Lecture 6 – Supervised learning & Associative memory (feedforward networks & attractor networks)	Jean-Pierre Nadal
3-nov	<b>No lecture (Easter vacations)</b>	
10-nov	Lecture 7 – Unsupervised learning & Neural coding	Jean-Pierre Nadal
17-nov	Lecture 8 – Behavioural/reinforcement learning	Mehdi Khamassi
24-nov	<b>No lecture (PSL activities)</b>	

**Models of specific cognitive systems** - Each Class is given by an experimentalist+ a theoretician.

1-dec	Lecture 9 - The Role of the Hippocampus in Navigation	Michael Zugaro + Vincent Hakim
8-dec	Lecture 10 - Decision making	Yves Boubenec + Jean-Pierre Nadal
15-dec	Lecture 11- Cerebellum	Boris Barbour + Alex Cayco Gajic
05-janv	Lecture 12 - Perceptual systems (vision, audition; application of DeepLearning to the study of the auditory system)	Brice Bathelier + Jonas Ranft
12-janv	Exam (written part)	
	TBA oral presentations.	