Latest advances in imaging neural activity in freely moving animals

Brice BATHELLIER (Institut de l'Audition, Paris),
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(IBENS, Paris)

The workshop will review methodological and technological advances, including miniaturized microscopes, data analysis, and computational neuroscience, balancing theoretical and technical aspects of neural activity imaging in freely moving animals.

Deadline : **June 27, 2025**
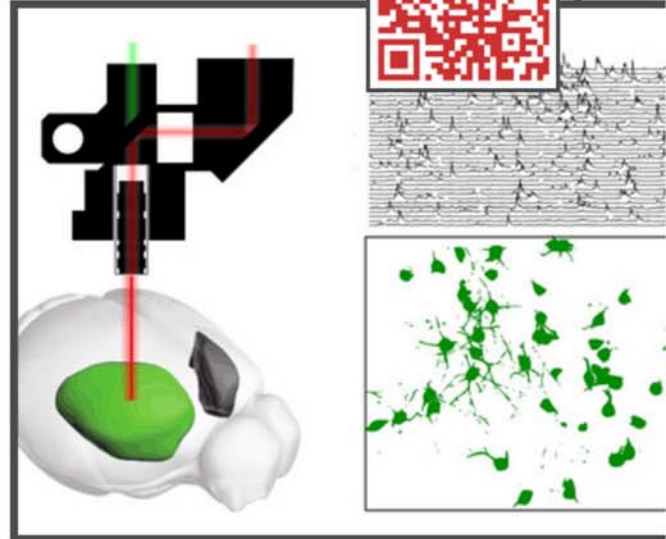
PHASE I THEORETICAL

October 7-9, 2025 — Montpellier

FIBER PHOTOMETRY & BIOSENSEURS INGINEERING
François ST PIERRE (Baylor College, USA), Thomas AKAM (University of Oxford, GBR) & Anna BELEYER (Bordeaux Neurocampus, FRA)

BRAIN IMAGING USING SINGLE PHOTON EXCITATION
Daniel AHARONI (UCLA, USA), Cathie VENTALON (ENS, FRA) & Ana JOÃO RODRIGUES (Life and Health Sciences Research Institute, PRT)

BRAIN IMAGING USING MULTIPHOTON EXCITATION
Weijian ZONG (Kavli Institut, NOR), Jason KERR (Max Planck Institute, DEU) & Nicolo ACANTO (Institut de la Vision, FRA)

PRE-PROCESSING AND ANALYSIS OF IMAGING DATA
Alex CAYCO-GAJIC (ENS, FRA), Demian BATTAGLIA (University of Strasbourg, FRA) & Kenneth HARRIS (University College London, GBR)

PHASE II PRACTICAL

3 days in November 2025 — Paris

The practical phase will be divided into three independent workshops focused on data acquisition, conducted over two days:

1. Fiber photometry

2. One-photon imaging

3. Multiphoton imaging in behaving animals

Following these two days, all participants will come together for a joint session dedicated to data preprocessing (filtering, motion correction, registration, etc.) and analysis.

SELECTION: 4 trainees will be selected for each technical among Phase I participants.

INFORMATION & REGISTRATION CLICK HERE

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