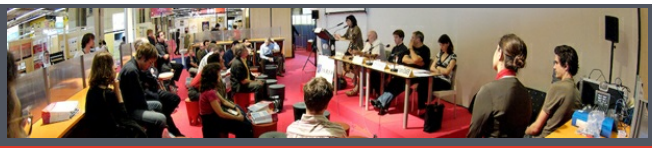
INTERNATIONAL RELATIONS



INTERNSHIP SUBJECT

2879 - Chunking dynamics in sequential learning

Chunking is a remarkable cognitive process that allows the brain to organize information into larger, meaningful units, enabling efficient memory and processing. For example, instead of remembering a sequence like "1234567890," we naturally group it as "(123) 456-7890." In the context of motor learning, chunking serves as a key mechanism for integrating motor sequences, streamlining complex actions into cohesive, automated patterns. This process evolves dynamically during learning: chunks become progressively fewer and longer, reflecting reorganization strategies that optimize performance. This internship will explore the evolution of chunking patterns during visuomotor sequence learning in baboons using a mathematical model of associative memory. The goal is to uncover the dynamical principles of chunk reorganization during learning.

The project is in collaboration with Frédéric Lavigne (Université Côte d'Azur, Nice, France) and Arnauld Rey (CNRS, Marseille, France) in the context of the Hebbian ANR-project.

Required Skills

Familiarity with dynamical systems, mathematical models and proficiency with Python are required.

General Information

- **Locality :** Villeurbanne
- **Level :** Master
- **Period :** 1st March 2026 -> 31st May 2026 (3 months)

These are approximative dates. Please contact the training supervisor to know the precise period.

- **Deadline to apply :** 1st July 2025 (midnight)

Contacts

- **Training Supervisor :** Elif Köksal / elif.koksal@inria.fr
- **Second Training Supervisor :** Chossat Pascal / pascal.chossat@inria.fr

More information

- **Inria Team :** AT-LYS
- **Inria Center :** Centre Inria de Lyon