Swiss Center for Affective Sciences

GRADUATE SEMINAR

Tuesday,
6th October
2020

14:00 - 18:00

Campus Biotech
Room H8.01 D
9, chemin des Mines
Geneva

Introduction to the computational modelling of behavioral data and its applications to emotional learning and decision-making

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(University of Geneva)

Computational modeling of behavioral data is revolutionizing research on emotional learning and decision-making. This approach consists in formalizing cognitive processes underlying behavior as detailed algorithms - computational models. Ultimately, these models can shed new lights on the neuronal mechanisms underlying behavior, as well as on the mechanisms involved in psychological disorders. The goal of this workshop is to introduce the computational modeling approach, focusing on reinforcement learning (RL) algorithms and their application to emotional learning and decision-making. We will provide a theoretical and practical introduction showing what a RL model can and cannot tell us about the cognitive processes used to solve simple learning tasks. We will illustrate some of the basic modeling techniques through simple, hands on, programming exercises. Finally, we will discuss the advantages and the pitfalls of this approach that is increasingly growing in popularity.

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