

# ASHBi SEMINAR

## Deciphering Mental Conflict in Decision-Making from Animal Behavioral Data

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Date

**Tuesday, 30 November 2021**

Time

**16:00 – 17:00**

Venue

**Zoom Online Meeting\***

\*Register via the right QR code



### Abstract

Humans and animals are not optimal agents and often behave irrationally. They do not only rationally exploit rewards, but also explore the environment even without rewards so as to minimize uncertainty of the environment owing to their curiosity. However, the mechanism by which their curiosity is regulated has been largely unclear. Here, we developed a new decision-making model by extending the free energy principle. This model successfully described conservative, rational, and explorative behaviors depending on the level of curiosity. Furthermore, we have developed a machine learning method to infer fluctuations in curiosity and confidence from behavioral data. Therefore, comparison between neural activities and curiosity estimated by our method could enable us to reveal the neural basis for controlling mental temporal dynamics such as conflicts between reward and curiosity.

Organizer : Associate Prof Ken-ichi Amemori

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Hosted by Institute for the Advanced Study of Human Biology (WPI-ASHBi)

