



## Neurotheory Forum

# [Online] What can we further learn from the brain for artificial intelligence?

**Kenji Doya (Okinawa Institute of Science and Technology)**

**Host: Tim Vogels**

Deep learning is a prime example of how brain-inspired computing can benefit development of artificial intelligence. But what else can we learn from the brain for bringing AI and robotics to the next level? Energy efficiency and data efficiency are the major features of the brain and human cognition that today's deep learning has yet to deliver. The brain can be seen as a multi-agent system of heterogeneous learners using different representations and algorithms. The flexible use of reactive, model-free control and model-based "mental simulation" appears to be the basis for computational and data efficiency of the brain. How the brain efficiently acquires and flexibly combines prediction and control modules is a major open problem in neuroscience and its solution should help developments of more flexible and autonomous AI and robotics.

**Friday, September 11, 2020 03:00pm - 04:00pm**

IST Austria Campus <https://www.crowdcast.io/e/kenji-doyes>



This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: <https://ist.ac.at/en/campus/how-to-get-here/> The IST Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.