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AI-driven brain modelling

Wednesday 4 October 2023 16:30 (45 minutes)

Zoom webinar:
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Artificial Neural Networks (ANNs) are the workhorse of modern AI, but they were originally invented as models of the brain. In recent years computational neuroscientists have used ANNs to model the brain to great effect, achieving state-of-the-art matches to the representations found in the brain. In this session we will outline two of the major uses for ANNs in neuroscience research: 1) as a tool to answer "why" questions and 2) as a tool for discovery. We will discuss how anatomical, connectomics, and functional data, including anatomical by the BigBrain, can facilitate progress in modeling the brain. We will end with a discussion session on best tips for using ANNs in neuroscience.

Presenters: BASHIVAN, Pouya (McGill University; MILA); RICHARDS, Blake (McGill University; MILA)