



SENSORY ENCODING AND THE EMERGENCE OF MEMORY

April 26 - 27, 2022

Session 2

Microcircuit control of sensory information processing and behavior

SAGE BOETTCHER

Department of Experimental Psychology, University of Oxford, UK

Memory in action: Action plans are encoded early into working memory

Working memory is of critical importance during natural behaviour, allowing us to act on sensations that are no longer present in our environment. As such, it is vital to understand how we encode and maintain sensory information and how that sensory information is later used to guide our actions. Here I will discuss how prospective actions emerge alongside the encoding and retention of visual information in working memory. A key finding of this work is that prospective action plans are encoded into memory early before general action preparation. This occurs even in the face of an intervening motor task and predicts memory guided behaviour several seconds later. I will also discuss recent findings on the interplay between actions, memory, and perception.

