



# MECHANISMS OF PERCEPTION, CATEGORISATION, MEMORY AND COGNITION

27<sup>th</sup> - 28<sup>th</sup> of April 2021

Online

## Programme

<b>April 27<sup>th</sup></b>	<b>9:00</b>	<b>Welcome</b> - opening of the conference Denise Manahan-Vaughan Director IGSN / Speaker SFB 874
<b>Session 1</b>	<b>9:15</b>	<b>Mechanisms and neural correlates of perception</b>
	<b>9:25</b>	<b>Michael Brecht</b> Bernstein Center for Computational Neuroscience, Humboldt University, Berlin, Germany <b>Large Brains &amp; Bodies</b>
	<b>10:10</b>	<b>Laura Busse</b> Division of Neurobiology, Faculty of Biology, LMU Munich, Germany <b>Visual processing of feedforward and feedback signals in mouse thalamus</b>
	<b>10:55</b>	Coffee break
	<b>11:05</b>	<b>Mathilde Bonnefond</b> Lyon Neuroscience Research Center (CRNL), INSERM UMRS 1028, CNRS UMR 5292, Université de Lyon, Lyon, France, Germany <b>Role of alpha oscillations in anticipating and processing visual stimuli</b>
	<b>12:00</b>	Brainstorming Session
	<b>12:30</b>	Lunch break



**IGSN / SFB 874 Conference:****MECHANISMS OF PERCEPTION, CATEGORISATION,  
MEMORY AND COGNITION**April 27<sup>th</sup> - Afternoon**Session 2: 13:30 Mechanisms and neural correlates of categorisation learning****13:40 Andreas Nieder**

Institute of Neurobiology, Dept. of Biology, University of Tübingen, Germany

**Number neurons for quantity categorization across vertebrate species****14:25 Nikolaus Kriegeskorte**

Cognitive Imaging, Zuckerman Mind Brain Behavior Institute, Columbia University, New York, USA

**Testing deep neural network models of human vision with brain and behavioral data****15:10 Coffee break****15:20 Jefferson Roy**

The Picower Institute for Learning and Memory, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, USA

**Prefrontal cortex activity during flexible categorization****16:00 Brainstorming Session****17:00 GATHERTOWN** (only for speakers and PhD researchers)

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**April 28<sup>th</sup>** - Morning

**Session 3      9:30      Neural fundamentals of memory and cognition**

**9:40      Monika Schönauer**  
Department of Psychology, Neuropsychology, University of Freiburg, Germany  
**Imaging memory consolidation in wakefulness and sleep**

**10:25      Sebastien Bouret**  
CNRS - French National Centre for Scientific Research, Paris, France  
**Neural basis of motivation in monkeys: complementary roles of dopamine and noradrenaline**

**11:10      Coffee break**

**11:20      Guillén Fernández**  
Donders Institute for Brain, Cognition and Behavior, Radboud University Medical Center, Nijmegen, the Netherlands  
**Are there alternative routes into long-term memory?**

**12:05      Brainstorming Session**

**12:35      Lunch break**



**IGSN / SFB 874 Conference:****MECHANISMS OF PERCEPTION, CATEGORISATION,  
MEMORY AND COGNITION**April 28<sup>th</sup> - Afternoon**Session 4      13:30      Mechanisms and neural correlates of associative memory****13:40      Lisa Genzel**

Donders Institute for Brain, Cognition and Behavior, Radboud University Medical Center,  
Nijmegen, the Netherlands

**Learning large spatial environments: the HexMaze for mice and rats****14:25      Santiago Canals**

Neuroscience Institute (Spanish Research Council CSIC - UMH), Alicante, Spain

**Binding cell assemblies into systems level memory engrams****15:10      Coffee break****15:20      Attila Losonczy**

Department of Neuroscience, Columbia University, New York, NY, USA

**Adaptive Stimulus Selection for Consolidation in the Hippocampus****16:00      Brainstorming Session****16:30      FAREWELL – end of conference**