

# *Space, Time, and Number: Cerebral Foundations of Mathematical Intuition*

24th Attention & Performance meeting

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## **Preliminary Schedule**

**Tuesday, July 6<sup>th</sup>**

**Arrival in the afternoon**

**6:30 pm: Association lecture**

Randy Gallistel (USA): *The representation of space, time, number and probability: Foundational and primitive*

**Wednesday, July 7<sup>th</sup>**

Morning (9-13)

**Number**

Andreas Nieder (Germany): *The neural code for number*

David Burr (Italy): *Visual mechanisms of time and number revealed by adaptation*

Liz Brannon (USA): *Adding, ordering, and cross-modally matching number in primates.*

Giorgio Vallortigara (Italy): *The origins of the sense of space and number in animals*

Manuela Piazza (Italy): *Cortical representation of symbolic and non-symbolic information*

Afternoon (16-19)

**The coding of space**

Patrick Cavanagh (France): *The position sense*

Nicola Clayton (UK): *Memory for space -- food caching in scrub jays*

Véronique Izard (France): *Intuitions of Euclidean geometry: universal but not innate*

General discussion: similarities and differences between space and number

Evening: Poster session 1

**Thursday, July 8<sup>th</sup>**

Morning (8:30-11:30)

**The coding of time**

David Eagleman (USA): *Human time perception: a new theory of subjective duration*

Concetta Morrone (Italy): *Illusions of time: space-time relativity in the brain?*

Jennifer Coull (France): *Hemispheric lateralisation for spatial versus temporal expectation*

Lera Boroditsky (USA): *Constructing time: Cross-cultural similarities and differences*

11:30 pm-13:00 pm: Poster session 2 + coffee

Afternoon: Excursion and dinner

2:30 bus to Port Royal

5:00 pm bus to NeuroSpin, and visit

6:30 bus to restaurant

## Friday, July 9<sup>th</sup>

Morning (9-13)

### Understanding magnitude codes and their interactions

Dean Buonomano (USA): *Neural Basis of Subsecond Timing: Encoding time in Network States*

Edvard Moser (Norway): *Grid cells and the brain's representation of space'*

Ehud Zohary (Israel): *Are there spatiotopic representations in the human visual pathways?*

Lisa Feigenson (USA): *Working memory and numerical representations*

Wim Fias (Belgium): *Beyond the mental number line: Multiple links between number and space*

Afternoon (16-19)

### Cross-modal interactions and cross-dimensional metaphors

Yves Rossetti (France): *Neglect in the numerical, spatial and time domains*

Roi Cohen Kadosh (UK): *Synaesthesia: Gluing together Number, Space, and Time*

Daniel Haun (Germany): *Comparative Cognitive Anthropology of Space and Number*

General Discussion: origins of cross-dimensional interactions

## Saturday, July 10<sup>th</sup>

Morning (9-12:3)

### Development, education and representational change

Stella Lourenco (USA): *Developmental Origins and the Extent of Generalization in the Representation of Magnitude*

Robert Siegler (USA): *Education and the development of number-space mappings*

Brian Butterworth (UK): *Numerical development and dyscalculia*

Elizabeth Spelke (USA): *How language transforms early representations of space and number*

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