

# Saints Pères Neuroscience Seminar Series

**Friday, November 15<sup>th</sup>, 2019 at 11:30**

Salle des Conférences (R229)

Centre Universitaire des Saints-Pères

45 rue des Saints-Pères, 75006 Paris

**Mayank Mehta**

*Professor*

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## *Multisensory mechanisms of place cells and theta rhythm*

*The hippocampus is responsible for learning and spatial mapping. How does the hippocampus turn sensory stimuli into mental maps of space and how do they guide navigation? To address these questions, we have developed a noninvasive virtual reality system for rats where sensory and behavioral variables can be precisely manipulated. We measured neural responses from the cortico-hippocampal circuit while rats performed spatial tasks, such as the Virtual (Water) Maze navigation. We developed computational techniques to decipher the emergent neural dynamics. We also measured the membrane potential of individual dendritic branches in freely behaving rats for up to four days. The results provide surprising insights about place cells and dendritic computations.*

Those interested in meeting with the speaker please contact

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