

# Swiss Center for Affective Sciences

## NCCR GRADUATE SEMINAR

**Tuesday,  
May 26<sup>th</sup> 2015**

16:00 - 18:00

Campus Biotech  
Conference Room  
9, chemin des Mines  
Geneva

## Decision making under uncertainty: from computational models to emotions

**Prof. Kerstin Preuschoff**

(Geneva Finance Research Institute - University of Geneva)

Decision making is the outcome of complex neurophysiological processes involving, among others, constant evaluation of expected rewards and risks, balancing of emotional aspects, and computation of value signals. In this seminar, we will explore the neural processes and computations that underlie decision making. We start by looking at the evaluation of expected rewards and risks in decision making such as gambling and market behavior. We will then consider computational models of how a decision maker or trader can learn about the expected rewards and risks in his environment and what the neural basis of such learning is. Finally, we will discuss different forms of uncertainty, such as ambiguity and volatility. We will explore how the brain tracks different forms of uncertainty, how they influence learning and behavior, and how emotions play a crucial supporting role in the mathematical computations needed for reasoned choice. ■



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