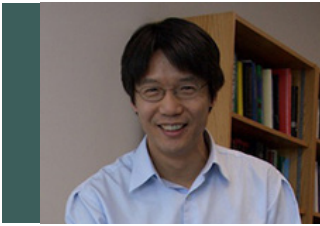


# Solvay Colloquium



**Prof. Xiao-Jing Wang**  
New York U., USA

## *From "cognitive-type" neural microcircuits to the global brain*

I will discuss Theoretical Neuroscience as it pertains to brain structures dedicated to cognitive abilities rather than sensation or movement, such as how we hold and manipulate information in mind and how we make a difficult decision. These circuits are non-linear stochastic dynamical systems characterized by a duality of slow transients and attractor dynamics. More recently we developed large-scale modeling of mammalian neocortex, based on mesoscopic directed- and weighted inter-areal connectivity data. Advances in this research program will provide a theoretical framework for investigating how such a complex brain system with more than 100 parcellated areas underlies cognition and flexible behavior, as well as new ideas for artificial intelligence and deficits associated with mental illness.

**Tuesday 19 March 2019 at 4.00 P.M.**

**COFFEE AND TEA WILL BE SERVED AT 3.45 P.M. IN FRONT OF THE SOLVAY ROOM**

SOLVAY ROOM  
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