



Guillermo A. Cecchi

Guillermo A. Cecchi Thomas J. Watson Arařtırma Merkezi'nde Komputasyonel Sinirbilim alanında alıřmaktadır. Guillermo Cecchi Arjantin La Plata niversitesi'nden 1991 yılında mezun oldu. 1999 yılında Rockefeller niversitesi'nde fizik ve biyoloji alanında doktorasını yaptı. Cornell niversitesi'nde 2000-2001 yılları arasında grntleme yntemleri zerine alıřmalarda bulundu. 2001 yılında IBM arařtırma řirketinde komputasyonel beyin fonksiyonları alanında alıřmaya bařladı. Halen IBM řirketinde arařtırmalarına ve alıřmalarına devam etmektedir.

alıřma Alanları

Behavioral modeling: models of perception, cognition and behavior based on largescale database analysis, including speech analysis in psychiatry.

Machine learning applications to the study of fMRI signals: utilization of state-of-the-art techniques in Machine Learning to build predictive models of the responses to complex tasks, under the assumption that brain function consists of extended spatio-temporal states.

Statistical network theory approaches for complex biological networks: identification of novel topological and dynamical regularities to characterize the emergent properties of complex biological systems.

Network-based approaches to dysfunctional brain states: application of network theory to characterize and predict complex psychiatric diseases, with an emphasis on schizophrenia and chronic pain.

Large-scale structure of cortical visual maps: analysis and modeling of the spatial structure of responses to visual inputs, and studies of the relationship between selforganized models of map formation and the statistics of visual inputs.

Learning and dynamics in oscillatory neural networks: study of the topological and dynamical effect of experimentally validated rules of synaptic plasticity, and their relationship with the theory of criticality.