



به نام آنکه جان را فکرت آموخت



دانشکده برق و کامپیوتر
دانشگاه صنعتی اصفهان

سمینار علمی

Adaptive neural coding in rodent somatosensory system

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Abstract:

A fundamental question in systems neuroscience is how neuronal populations in the brain encode the sensory environment in their stochastic spiking activity, and in turn, how this activity gives rise to perception and behaviour. To address this question, it is crucial to characterise how the statistics of sensory input and the circuitry of the brain shapes the spatiotemporal dynamics of stochastic neuronal activity. In this talk, we review recent findings on the ties binding together the activity of neurons, and the way this affects the efficiency of neurons to transfer information.

Biography:



Dr. Mehdi Adibi is currently an Australian National Health and Medical Research Council early career research fellow jointly at International School for Advanced Studies (SISSA), Italy and the University of New South Wales (UNSW), Australia. He received his B.Sc. degree in electrical engineering in 2005 from Isfahan University of Technology, and the M.Sc. degree in communication systems engineering in 2008 from Iran University of Science and Technology. He was a researcher in neuroscience from 2000 at Isfahan University of Medical Sciences and later at Institute for Research in Fundamental Sciences (IPM), Tehran. He received his Ph.D. degree in neuroscience in 2014 from the University of New South Wales, Sydney, Australia. From 2013 to 2016 he has been a postdoctoral research fellow in the John Curtin School of Medical Research at the Australian National University. In 2015, he received the NHMRC CJ Martin Fellowship. His main focus of research is on neural coding and sensory adaptation in rodents.