THURSDAY COLLOQUIUM

Department of Physics, Tsinghua University

http://www.phys.tsinghua.edu.cn/Colloquium/

Title From cognitive phenomena to insights in brain functions - experimental and theoretical approaches to understanding our brain

Speaker Prof. Li Zhaoping

Tsinghua University

Venue ZhengYu-Tong Lecture Hall
&Date 16:00, February 24, 2011

Abstract:

我将介绍一个新起的领域， 叫计算神经科学或理论神经科学。它是从实验观察到数理理论的建立来理解大脑的奥秘， 并因此而对我们的认知有一个科学的理解。我将用视觉感官系统作为例子来看理论神经科学是如何从实验升华到理论的。

Introduction to the Speaker

Prof. Li obtained her B.S. in Physics in 1984 from Fudan University, Shanghai, and Ph.D. in Physics in 1989 from California Institute of Technology. She was a postdoctoral researcher in Fermi National Laboratory in Batavia, Illinois USA, Institute for Advanced Study in Princeton New Jersey, USA, and Rockefeller University in New York USA. She have been a faculty member in Computer Science in Hong Kong University of Science and Technology, and was a visiting scientist at various academic institutions. In 1998, Prof. Li helped to found the Gatsby Computational Neuroscience Unit in University College London. Currently, She is a Professor of computational neuroscience in the Department of Computer Science in University College London. Her research experience throughout the years ranges from areas in high energy physics to neurophysiology and marine biology, with most experience in understanding the brain functions in vision, olfaction, and in nonlinear neural dynamics. In late 90s and early 2000s, She proposed a theory (which is being extensively tested) that the primary visual cortex in the primate brain creates a saliency map to automatically attract visual attention to salient visual locations.