THEORETICAL SCIENCES VISITING PROGRAM

SVP ALK

Implicit Visuomotor Control for Interaction With Environment

2024 THU. NOV. 14

15:00-16:00





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Humans' interactions with the world rely heavily on visual information. We need to control our limb movements in real time and consider our own body's motion to manipulate external objects. In this talk, I will introduce two types of implicit visuomotor processing crucial for skillful dynamic interactions with the external world: one an impact of visual information on the somatosensory stretch reflex, and the other a direct influence of visual motion on reaching movement. Our aim is to reveal the hidden sensorimotor mechanisms embedded in the brain to understand skillful dynamic interactions with environments.

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Hiroaki Gomi is a Senior Distinguished Research Scientist at NTT Communication Science Laboratories. He received B.E., M.E., and Ph.D degrees in Mechanical Engineering from Waseda University. He was affiliated at ATR from 1989 to 1994, where he studied computational models of cerebellum motor control and robot demonstration learning mechanisms, and developed a manipulandum for studying arm control. He was an Adjunct Associate Professor and Adjunct Professor of the Univ. Tokyo Institute of Technology, and was involved in two CRESTs and ERATO projects of Japan Science Technology, and the 'Correspondence and Fusion of Artificial Intelligence and Brain Science' Project. His current research interests include computational and neural mechanisms of implicit sensorimotor control and interaction among sensory, motor, and perception, and development of tactile interfaces.



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