

Group 3

Study on the visual function by computational and systems' approach

- 3-1 A mathematical model of cortical receptive fields and functional maps
Masanobu Miyashita (*BSI, RIKEN*)
- 3-2 A mathematical model of cortical dynamics
Shigeru Tanaka (*BSI, RIKEN*)
- 3-3 Computational models for color perception
Shigeki Nakauchi (*Toyohashi University of Tech.*)
- 3-4 Dynamics of the cortical network in the visual perception and cognition
Hidehiko Komatsu (*NIPS*)
- 3-5 Neural network model for detecting planar surface from optical flow in area MST of the visual cortex
Hiroaki Okamoto (*Fujitsu Ltd.*), **Susumu Kawakami** (*Tohoku University*)
- 3-6 Neural network model of higher visual functions
Toshio Inui (*Kyoto University*)
- 3-7 Derivation of qualia from spatiotemporal activity patterns in neural networks
Yoshihide Tamori (*Kanazawa Institute of Tech.*)
- 3-8 Binocular information processing mechanism in the visual cortex
Izumi Ohzawa (*Osaka University*)
- 3-9 Neural network model for the mechanism of visual pattern recognition
Kunihiko Fukushima (*Tokyo University of Tech.*)
- 3-10 Network mechanisms of the response modulation in the primary visual cortex
Hiromichi Sato (*Osaka University*)
- 3-11 Electrophysiological studies on how MST cell contribute 3-dimensional space perception
Hide-aki Saito (*Tamagawa University*)
- 3-12 Psychophysical study on spatiotemporal information processing by human visual system
Shin'ya Nishida (*NTT Communication Science Lab.*) (Collaborator)
- 3-13 3D Reconstruction of Non-Rigid Objects
Keisuke Kinoshita (*ATR Human Information Science Lab.*),
Shigeru Akamatsu (*Hosei University*)