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**新学術領域研究「人工知能と脳科学の対照と融合」ポスター演題
Scientific Research on Innovative Areas: Artificial Intelligence and
Brain Science Poster Presentation List**

<A01>

<公募班/Publicly Research Group>

A01-01 (Board No.1)

Revealing the mesoscale cortical dynamics during decision making using recurrent neural networks
Javier Orlandi, Andrea Benucci
(Dr. Benucci group)

A01-02 (Board No.2)

Multiscale associative memory recall by modulation of inhibitory circuits
Tatsuya Haga, Tomoki Fukai
(Dr. Fukai group)

A01-03 (Board No.3)

Neural Representation of Internal Model Guided Decision Making in Mouse Frontal Cortex
Kosuke Hamaguchi, Dai Watanabe
(Dr. Hamaguchi group)

A01-04 (Board No.4)

CNN explains tuning properties of anterior, but not middle, face-processing areas in macaque IT
Rajani Raman, Haruo Hosoya
(Dr. Hosoya group)

A01-05 (Board No.5)

Self-Simulation and Memory Generation in an Artificial Brain System
Norihiro Maruyama, Atsushi Masumori, Hiroki Kojima, Itsuki Doi, Takashi Ikegami
(Dr. Ikegami group)

A01-06 (Board No.6)

Hierarchical Prediction and Prediction Error in the Marmoset Brain
Peng Gui, Liping Wang, Misako Komatsu
(Dr. Komatsu group)

A01-07 (Board No.7)

Inter-regional co-activation of neuronal ensembles emerged after initial memory acquisition.
Hiroyuki Miyawaki, Kenji Mizuseki
(Dr. Miyawaki group)

A01-08 (Board No.8)

Nonlinear spatial ICA of resting-state fMRI via space-contrastive learning
Hiroshi Morioka
(Dr. Morioka group)

- A01-09 **(Board No.9)**
Toward nonlinear dynamical representation learning and its application to analysis and prediction of the brain
Hiroshi Morioka
(Dr. Morioka group)
- A01-10 **(Board No.10)**
Elucidation of neural mechanism underlying model-based decision making using optogenetic manipulation
Yu Ohmura
(Dr. Ohmura group)
- A01-11 **(Board No.11)**
Neuronal representation of object choice in the striatum
Kazuyuki Samejima, Shohei Nonomura
(Dr. Samejima group)
- A01-12 **(Board No.12)**
Analysis of Deep Convolutional Neural Network Texture Representation using Portilla-Simoncelli Statistics
Yusuke Hamano, Akihiro Endo, Hayaru Shouno
(Dr. Shouno group)
- A01-13 **(Board No.13)**
Magnetic Domain Pattern Analysis Using Portilla-Simoncelli Statistics.
Yusuke Hamano, Kaoru Iino, Hayaru Shouno
(Dr. Shouno group)

<計画班/Planned Research Group>

- A01-14 **(Board No.14)**
Experimental and theoretical investigation of Bayesian inference across multiple layers in somatosensory cortex
Yuzhe Li, Kenji Doya
(Dr. Doya group)
- A01-15 **(Board No.15)**
Representation and grounding of abstract concepts: a preliminary investigation
Ho Ching Chiu, Kenji Doya
(Dr. Doya group)
- A01-16 **(Board No.16)**
The role of the dlPFC in the congruency sequence effect: other than conflict-based regulation
Nan Li, Kang Cheng, R. Allen Waggoner, Keiji Tanaka
(Dr. Tanaka group)

<A02>

<公募班/Publicly Research Group>

- A02-01 **(Board No.17)**
Analysis of the whole-brain neural network dynamics of the nematode *C. elegans*.
Yuichi Iino, Yu Toyoshima, Hirofumi Sato, Stephen Wu, Manami Kanamori, Moon Sun Jang, Suzu Oe, Yuko Murakami, Osamu Hirose, Terumasa Tokunaga, Sayuri Kuge, Takayuki Teramoto, Yuishi Iwasaki, Ryo Yoshida, Takeshi Ishihara
(Dr. Iino group)

- A02-02 **(Board No.18)**
RNN-based simulation of behavior in *C. elegans*
Keita Mori, Naohiro Yamauchi, Haoyu Wang, Ken Sato, Yu Toyoshima, Yuichi Iino
(Dr. Iino group)
- A02-03 **(Board No.19)**
Organization of multisynaptic inputs from the basal ganglia to the dorsal and ventral premotor cortices in macaque monkeys
Ken-ichi, Inoue, Soshi Tanabe, Kei Kimura, Masahiko Takada
(Dr. Inoue group)
- A02-04 **(Board No.20)**
Reward prediction errors, not sensory prediction errors, plays a major role for model switching in human reinforcement learning
Yihao Wu, Masahiko Morita, Jun Izawa
(Dr. Izawa group)
- A02-05 **(Board No.21)**
Optimizing learning rate by meta-learning to maximize reward in visuomotor learning
Taisei Sugiyama, Nicolas Schweighofer, Jun Izawa
(Dr. Izawa group)
- A02-06 **(Board No.22)**
Attempts to visualize neuronal activity by striatal cell type during various learning phases of stimulus discrimination
Yoshio Iguchi, Kazuto Kobayashi
(Dr. Kobayashi group)
- A02-07 **(Board No.23)**
Neuronal representation of adaptive decision making in the rat ventral tegmental area
Hideyuki Matsumoto, Kenji Mizuseki
(Dr. Matsumoto group)
- A02-08 **(Board No.24)**
Parallel reward and punishment learning under entropy regularization.
Eiji Uchibe, Jiexin Wang
(Dr. Uchibe group)

<計画班/ Planned Research Group>

- A02-09 **(Board No.25)**
Eye-hand coordination offers distinct representations and generalization in motor learning for reaching movements
Naotoshi Abekawa, Hiroaki Gomi
(Dr. Gomi group)
- A02-10 **(Board No.26)**
DNN succeeded to acquire spatiotemporal tuning of reflexive visuomotor responses by learning statistical relationship between self-motion and visual motion
Daiki Nakamura, Hiroaki Gomi
(Dr. Gomi group)

A02-11 (Board No.27)

Uncertainty of the high-level representation of a limb regulates low-level feedback control in reaching movements
Sho Ito, Hiroaki Gomi
(Dr. Gomi group)

A02-12 (Board No.28)

On-line control mechanisms during reaching: effect of cerebellum lesion
Aya Takemura, Naotoshi Abekawa, Hiroaki Gomi
(Dr. Gomi group)

A02-13 (Board No.29)

Illusory pulling direction during an oddball task modulates long-latency somatosensory ERPs
Jack De Havas, Sho Ito, Hiroaki Gomi
(Dr. Gomi group)

A02-14 (Board No.30)

Hierarchical Control Architecture for Humanoid Model
Koji Ishihara, Jun Morimoto
(Dr. Morimoto group)

<A03>

<公募班/Publicly Research Group>

A03-01 (Board No.31)

Computational Modeling of Dynamical Social Interaction in Non-Human Primate
Koki Mimura
(Dr. Mimura group)

A03-02 (Board No.32)

Modeling morphological processing in human magnetoencephalography
Yohei Oseki, Alec Marantz
(Dr. Oseki group)

A03-03 (Board No.33)

Feature learning using convolutional neural networks for psychiatric brain imaging.
Hiroyuki Yamaguchi, Yuki Hashimoto, Genichi Sugihara, Jun Miyata, Toshiya Murai, Hidehiko Takahashi, Manabu Honda, Yuichi Yamashita
(Dr. Yamashita group)

<計画班/Planned Research Group>

A03-04 (Board No.34)

Chemogenetic inactivation using double virus vector infection reveals the inhibitory function of the prefronto-striatal pathway
Mineki Oguchi, Shingo Tanaka, Xiaochuan Pan, Takefumi Kikusui, Keiko Moriya-Ito, Shigeki Kato, Kazuto Kobayashi, Masamichi Sakagami
(Dr. Sakagami group)

ポスターボードサイズ: 幅 90cm × 高さ 210cm

最大ポスターサイズ: 幅 90cm × 高さ 180cm

*右上部のパネル番号(20cmx20cm)スペースと足部分 10cm を避けてください。

ポスター発表者リストと会場レイアウト図にて、ポスター掲示指定番号をご確認ください。

対応するポスターボードにポスターを掲示ください。押しピンは事務局にてご用意いたします。

ポスターセッションは、中会議場 1(2 階)にて懇親会と同時に開催されます。ポスター掲示は、14 時 55 分以降に掲示してください。ポスター発表終了後(20 時 30 分)、速やかに剥がしていただき、お持ち帰りください。

Poster board size: Width 90cm Height 210cm

Maximum poster size: Width 90cm Height 180cm

*Please avoid the space for the poster number (20cmx20cm) and the lower part (10cm legs) of the panel.

Please see the presenters' list and the layout of the restaurant.

Please verify your poster number from the poster presenters' list. Be sure to identify the appropriate board number for your poster. Thumbtacks will be available onsite for mounting the posters. The poster session will take place during the banquet at the Meeting room 1 (2F).

Posters may be set up after 14:55 and have to be removed by 20:30.