

# Publications, Awards

## Publications

1. Yoshinari Makino, Masafumi Yano, Pictorial Cues Constrain Depth in the Vinci Stereopsis, *Vision Research*, 46, 1-2, 91-105, 2006
2. Naohiro Saito, Hajime Mushiake, Kazuhiro Sakamoto, Yasuto Itoyama, Jun Tanji, Representation of Immediate and Final Behavioral Goals in the Monkey Prefrontal Cortex during an Instructed Delay Period, *Cerebral Cortex*, 15, 10, 1535 - 1546, 2005
3. Kazuhiro SAKAMOTO, Takayuki SUGIURA, Toshihiko KAKU, Toru ONIZAWA and Masafumi YANO, Spatiotemporal balance in competing apparent motion is not predicted from the strength of the single-motion percept, *Perception*, 35, 947-957, 2006
4. Hajime Mushiake, Naohiro Saito, Kazuhiro Sakamoto, Yasuto Itoyama, and Jun Tanji, Activity in the Lateral Prefrontal Cortex Reflects Multiple Steps of Future Events in Action Plans, *Neuron*, 50, 631-641, 2006
5. Yoshinari Makino, Hisanori Makinae, Tsukasa Obara, Haruki Miura and Masafumi Yano, Observations of Olfactory Information Flows within Brain of the Terrestrial Slug, *Inciralia fruhstorferi*, *Proceeding of 2006 International Joint Conference on Neural Networks*, 7605-7612, 2006
6. Masashi Ito, Masafumi Yano, High-quality voice modification based on Local Vector Coding, *Proceeding of AES Japan Conference*, P-17,
7. Taiichiro Watanabe, Keita Motonami, Kazuhiro Sakamoto, Jun Deguchi, Risato Kobayashi, Ken Komiya, Keiji Okumura, Takafumi Fukushima, Hiroyuki Kurino, Hajime Mushiake, and Mitsumasa Koyanagi, Intelligent Neural Implant Microsystem Fabricated Using Multi-Chip Bonding Technique, *2005 International Conference on Solid State Device and Materials*, 462-463, 2005
8. Masashi Ito, Masafumi Yano, Pitch determination and sinusoidal modeling for time-varying voiced speech, *The Journal of the Acoustical Society of America* (4th joint meeting of ASA/ASJ), 120, 5, 3376, 2006
9. YOSHIHARA Yuki, TOMITA Nozomi, ASANO Tomotaka, MAKINO Yoshinari, YANO Masafumi, Control of Reaching Movement in Unpredictably Changing Environment by Constraints Emergence and Satisfaction, *Proc. of SICE-ICASE International Joint Conference 2006*, SP02-2, 2006
10. TOMITA Nozomi, YANO Masafumi, Real-time Control of Bipedal Movement based on Basal ganglia and Brainstem Systems, *Proc. of SICE-ICASE International Joint Conference 2006*, 4499-4502, 2006
11. Masashi Ito, Masafumi Yano, A Local Vector Coding for High Quality Voice Analysis/Synthesis, *The Journal of the Acoustical Society of America* (150th Meeting of the Acoustical Society of America), 118, 3, 2024, 2005
12. Kazuhiro Sakamoto, Toru Onizawa, Masafumi Yano, Competition Between Spatial and Temporal Factors in Simple Apparent Motion is Modulated by Laterality, *Proceedings of the 4th IEEE International Conference on Development and Learning (ICDL-05)*, 175-179, 2005
13. Yoshinari Makino, Hisanori Makinae, Tsukasa Obara, Masafumi Yano, Brain Regions Related to Odor Learning and Memory in Terrestrial Slug, *Inciralia fruhstorferi*: Two Lobes of the Cerebral Ganglion Show Different Spatiotemporal Activities, *Proceedings of the 11th International Symposium on Artificial Life and Robotics*, OS7-1, 2006
14. Kazuhiro Sakamoto, Hajime Mushiake, Naohiro Saito, Jun Tanji, Transient Synchrony and Dynamical Representation of Behavioral Goals of the Prefrontal Cortex, *Proceedings of the 4th IEEE International Conference on Development and Learning (ICDL-05)*, 207-211, 2005
15. Ikuo Matsuo, and Masafumi Yano, A Computational Model of Echolocation: Restoration of an Acoustic Image from a Single-Emission Echo, *The Journal of the Acoustical Society of America* (149th Meeting of the Acoustical Society of America), 117, 4, 2553, 2005
16. Koji Ito, Takahiro Shioyama and Toshiyuki Kondo, Lower-limb Joint Torque and Position Controls by Functional Electrical Stimulation (FES), in J. L. Wu et al (eds.): *Complex Medical Engineering*, Springer, 240-249, 2006
17. Shunsuke Iida, Toshiyuki Kondo, Koji Ito, An Environmental Adaptation Mechanism for a Biped Walking Robot Control Based on Elicitation of Sensorimotor Constraints, *From Animals to Animats 9*, Lecture Notes in Computer Science, *Proceedings of 9th International Conference on Simulation of Adaptive*

- Behavior (SAB'06),4095, 174-184,2006
18. Toshiyuki Kondo, Evolutionary design and behavior analysis of neuromodulatory neural networks for mobile robots control, *Applied Soft Computing*, 7, 189-202, 2007
  19. J.L.Wu, K.Ito, S. Tobimatsu, T. Nishida, F. Fukuyama, *Complex Medical Engineering*, Springer, 2007
  20. Toshiyuki Kondo, Koji Ito, A Proposal of Continuous Time Recurrent Neural Networks with Neuromodulatory Bias for Adaptation to Un-experienced Environments, *SICE-ICASE Joint Conference 2006 (SICE-ICCAS'06)*, 5067-5070, 2006
  21. Koji Ito, Tsutomu Imai, Naoki Tomi and Toshiyuki Kondo, Decomposition of Internal Models in Motor Learning Under Mixed Dynamic Environments, *SICE-ICASE Joint Conference 2006 (SICE-ICCAS'06)*, 5061-5066, 2006
  22. Tomoaki Nagano, Toshiyuki Kondo and Koji Ito, A Distributed Motor Control System based on Spinal Cord and Musculoskeletal Mechanisms, *Proceedings of IEEE/RSJ International Conference on Intelligent Robots and Systems*, 192-197, 2006
  23. Koji Ito, Tsutomu Imai and Toshiyuki Kondo, Motor Adaptation to Dynamic Environments in Arm Reaching Motions, *Proceedings of XVIII IMEKO WORLD CONGRESS*, 2006
  24. Toshiyuki Kondo, Koji Ito, A design principle of adaptive neural controllers for realizing anticipatory behavior in reaching movement under un-experienced environments, *Proceedings of The Third Workshop on Anticipatory Behavior in Adaptive Learning Systems (ABiALS'06)*, 2006
  25. Toshiyuki Kondo, Koji Ito, A Neuromodulatory Neural Networks Model for Environmental Cognition and Motor Adaptation, *Proceedings of IEEE World Congress on Computational Intelligence (WCCI2006)*, 9865-9870, 2006
  26. Jun Izawa, Takahito Shimizu, Toshiyuki Aodai, Toshiyuki Kondo, Hiroaki Gomi, Shigeki Toyama, Koji Ito, MR Compatible Manipulandum with Ultrasonic Motor for fMRI Studies, *Proceedings of IEEE International Conference on Robotics and Automation (ICRA2006)*, 3850-3854, 2006
  27. Tetsunari Inamura, Naoki Kojo, Masayuki Inaba, Situation Recognition and Behavior Induction based on Geometric Symbol Representation of Multimodal Sensorimotor Patterns, *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 5147--5152, 2006
  28. Tetsunari Inamura, Naoki Kojo, Kazuyuki Sakamoto, Masayuki Inaba, Interactive intent imitation for humanoid robots based on dynamic attention prediction and control, *50th Anniversary Summit of Artificial Intelligence*, 2006
  29. Ei-Ichi Izawa, Naoya Aoki, Toshiya Matsushima, Neural correlates of the proximity and quantity of anticipated food rewards in the ventral striatum of domestic chicks, *European Journal of Neuroscience*, 22, 1502-1512, 2005
  30. Naoya Aoki, Ryuhei Suzuki, Ei-Ichi Izawa, Andras Csillag, Toshiya Matsushima, Localized lesions of ventral striatum, but not arcopallium, enhanced impulsiveness in choices based on anticipated spatial proximity of food rewards in domestic chicks, *Behavioural Brain Research*, 168, 1-12, 2006
  31. Naoya Aoki, Andras Csillag, Toshiya Matsushima, Localized lesions of arcopallium intermedium of the lateral forebrain caused a handling-cost aversion in the domestic chick performing a binary choice task, *European Journal of Neuroscience*, 24, 2314-2326, 2006
  32. Toshiya Matsushima, Neural control of foraging decision making in the domestic chicks, *International IBRO workshop (International Brain Research Organization, Budapest, 26 January, 2006)*, 2006
  33. Fumihiko Ishida, Yasuji E Sawada, Semianalytical transient solution of a delayed differential equation and its application to the tracking motion in the sensory-motor system, *Physical Review E*, 75, 12901, 2007
  34. Kenshi Watanabe, Kenichi Ohkubo, Sumiaki Ichikawa, and Fumio Hara, Classification of Object Shapes Utilizing Tactile Spatiotemporal Differential Information Obtained from Grasping by Single-Finger Robot Hand with Soft Tactile Sensor Array, *Journal of Robotics and Mechatronics*, 19, 1, 2007
  35. Akira Murata, Hiroaki Ishida, Representation of bodily self in the multimodal parieto-premotor network, In: *Representation and Brain*, edited by Shintaro Funahashi, Springer Verlag, (in press)
  36. Raos, V., Umiltà, M-A., Murata, A., Fogassi, L. & Gallese V, Functional properties of grasping-related neurons in ventral premotor area F5 of the Macaque monkey., *J Neurophysiol.* 95, 2, 709-729, 2006
  37. M. Ito, K. Noda, Y. Hoshino, J. Tani, Dynamic and interactive generation of object handling behaviors by a small humanoid robot using a dynamic neural network model, *Neural Networks*, 19, 323-337, 2006
  38. K. Noda, M. Ito, Y. Hoshino, J. Tani, Dynamic generation and switching of object handling behaviors by a humanoid robot using a recurrent neural network model, *Lecture Notes in Artificial*

- Intelligence(SAB2006),4095, 185-196,2006
39. H. Arie, J. Namikawa, T. Ogata, J. Tani, S. Sugano, Reinforcement learning algorithm with CTRNN in continuous action space, *Lecture Notes in Computer Science(ICONIP2006)*, 4232, 387-396, 2006
  40. Oshio Kenichi, Atsushi Chiba, Masahiko Inase, Delay Period Activity of Monkey Prefrontal Neurons during Duration-Discrimination Task, *European Journal of Neuroscience*, 23, 10, 2779-2790, 2006
  41. Atsushi Chiba, Kenichi Oshio, Masahiko Inase, Cue and Delay Responses of Monkey Striatal Neurons during a Duration Discrimination Task, *Proceedings of Neuroscience 2006, 36th Annual Meeting of Society for Neuroscience*, 572.2, 2006
  42. Takakusaki K, Saitoh K and Kashiwayanagi M . , The pedunculopontine nucleus and the basal ganglia in locomotion., In: *Recent Breakthroughs in Basal Ganglia Research*, (ed by E. Bezdard), 133-149, 2006
  43. Takakusaki K, Saitoh K, Nonaka S, Okumura T, Miyokawa N, Koyama Y. , Neurobiological basis of state-dependent control of motor behavior. *Sleep and Biological Rhythms*, 4, 87-104, 2006
  44. Yamada H, Tanno S, Takakusaki K, Okumura, T., Intracisternal injection of orexin-A prevents ethanol-induced gastric mucosal damage in rats, *Journal of Gastroenterology* (in press),
  45. Takakusaki K, , Forebrain control of locomotor behaviors, *Brain Research Review*, (in press),
  46. Adachi M, Nonaka S, Katada A, Arakawa T, Ota R, Harada H, Takakusaki K, Harabuchi Y., Carbachol injection into the pontine reticular formation depresses laryngeal muscle activity and airway reflexes in decerebrate cats, *Neuroscience Research* (in press),
  47. Takakusaki K, , What are the Neurophysiologic Substrates of Normal and Abnormal Gait? *Journal of Neurology* (in press),
  48. Takakusaki K, Forebrain control of locomotor behaviors, *Wenner-Gren Foundations International Symposium: "Networks in Motion"*, 2006
  49. F. Mori, K. Nakajima, A. Tachibana, and S. Mori., Obstacle clearance and prevention from falling in the bipedally walking Japanese monkey, *Macaca fuscata*. *Age and Aging*, 35, S2, 19-23, 2006
  50. F. Mori, K. Nakajima, and S. Mori., Control of bipedal walking in the Japanese monkey, *M. fuscata*, Reactive and anticipatory control mechanisms, In: Kimura, H., Tsuchiya, Ishiguro, A., and Witte, H. (Eds.), *Adaptive Motion of Animals and Machines*, Springer, p.249-p.250 (2006), 249-250, 2006
  51. F. Mori, K. Nakajima, Tachibana, A., Tsukada, H., and S. Mori., Primary, supplementary and premotor cortices are involved in the execution and control of operant-trained bipedal treadmill walking in Japanese monkey (*M. fuscata*). *The 1st International Congress on Gait and Mental Function*,
  52. Satoshi Shibuya, Toshimitsu Takahashi, Shigeru Kitazawa, Effects of visual stimuli on temporal order judgments of unimanual finger stimuli, *Experimental Brain Research*, DOI 10.1007/s00221-006-0829-4., 2007
  53. Kenji Yamamoto, Mitsuo Kawato, Shinya Kotosaka, Shigeru Kitazawa, Encoding of movement dynamics by Purkinje cell simple spike activity during fast arm movements under resistive and assistive force fields., *Journal of Neurophysiology*, 97, 2, 1588-1599, 2007
  54. Makoto Miyazaki, Shinya Yamamoto, Sunao Uchida, Shigeru Kitazawa , Bayesian calibration of simultaneity in tactile temporal order judgment., *Nature Neuroscience* , 9, 7, 875-877, 2006
  55. Makoto Wada, Kenji Yoshimi, Noriyuki Higo, Yong-Ri Ren, Hideki Mochizuki, Yoshikuni Mizuno, Shigeru Kitazawa, Statistical parametric mapping of immunopositive cell density. *Neuroscience Research*, 28, 11, 96-102, 2006
  56. Nakazato T, Kagohashi M, Yoshimi M. , Influence of pH on voltammetric measurement of dopamine. *Biogenic Amines*, 20, (in press), 2006
  57. Shigeru Kitazawa, Reversal of subjective temporal order due to sensory and motor integrations, *Attention and Performance XXII Sensorimotor foundations of higher cognition*. , 2006
  58. Shigeru Kitazawa, Where tactile signals are ordered in time, *Cognition and Action*, The 29th Annual Meeting of the Japan Neuroscience Society, 2006
  59. Shigeru Kitazawa, Discussion from a neurophysiological viewpoint, *Developing cross-modal representation of objects and space International Conference on Infant Studies 2006*, 2006
  60. Kagohashi M., Moizumi S Yoshimi K. Nakazato T, Kitazawa S., Wireless voltammetry: dopamine measurement in the freely moving rat., *Soc. Neurosci.*, (Suppl) 592.1., 2006
  61. Yoshimi K., Kagohashi M., Moizumi S, Hattori N, Nakazato T, Kitazawa, Week-long voltammetric recording in the rat striatum: circadian rhythm of dopamine level., *Soc. Neurosci.*, (Suppl) 469.1., 2006
  62. Futoshi Mori, Katsumi Nakajima, Atsumichi Tachibana, Shigemi Mori , Obstacle Clearance and

- Prevention from Falling in the Bipedally Walking Japanese Monkey, *Macaca fuscata*, Age and Aging, 35, S2, 19-23, 2006
63. Dai Yanagihara, Role of the cerebellum in adaptive control of locomotion., Proceedings of SICE-ICASE International Joint Conference, 4493-4494, 2006
  64. Nakatsukasa, M., Hirasaki, E., Ogihara, N., Energy expenditure of bipedal walking is higher than that of quadrupedal walking in Japanese macaques, *American Journal of Physical Anthropology*, 131, 33-37, 2006
  65. S. Aoi, K. Tsuchiya, Bifurcation and Chaos of a Simple Walking Model Driven by a Rhythmic Signal, *International Journal of Non-Linear Mechanics*, 41, 3, 438-446, 2006
  66. S. Aoi, K. Tsuchiya, Stability Analysis of a Simple Walking Model Driven by an Oscillator With a Phase Reset Using Sensory Feedback, *IEEE Transactions on Robotics*, 22, 2, 391-397, 2006
  67. S. Aoi, K. Tsuchiya, Self-stability of a Simple Walking Model Driven by a Rhythmic Signal, *Nonlinear Dynamics*, 48, 1-2, 1-16, 2007
  68. S. Aoi, K. Tsuchiya, Gait Transition from Quadrupedal to Bipedal Locomotion of an Oscillator-driven Biped Robot, *International Journal of Advanced Robotic Systems*, (in press),
  69. S. Aoi, H. Sasaki, K. Tsuchiya, A Multi-legged Modular Robot That Meanders: Investigation of Turning Maneuvers Using its Inherent Dynamic Characteristics, *SIAM Journal on Applied Dynamical Systems*, (in press),
  70. Nakatsukasa, M., Hirasaki, E., Ogihara, N., Energy expenditure of bipedal walking is higher than that of quadrupedal walking in Japanese macaques, *American Journal of Physical Anthropology*, 131, 33-37, 2006
  71. S. Aoi, K. Tsuchiya, Bipedal Locomotion Control Using Nonlinear Oscillators, *Dynamic Walking 2006*, 2006
  72. S. Aoi, K. Tsuchiya, Feedback Control of a Simple Walking Model Driven by an Oscillator, *IEEE International Conference on Robotics and Automation*, 1990-1996, 2006
  73. S. Aoi, K. Tsuchiya, Turning Maneuvers of a Multi-legged Modular Robot Using Its Inherent Dynamic Characteristics, *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 180-185, 2006
  74. Y. Sugimoto, K. Osuka, Implicit Feedback Structure in Passive Dynamic Walking, *Dynamic Walking 2006*, 2006
  75. Ogihara, N., Nakatsukasa, M., Sugimoto, Y., Aoi, S., Tsuchiya, K., Adaptive locomotion mechanisms inherent in the musculoskeletal structure, *SICE-ICASE International Joint Conference 2006*, 2006
  76. Hase, K., Obinata, G., Nakayama, A., Ogihara, N., Usui, T., Tasaki, Y., Large-scale forward dynamics simulation with a whole-body musculoskeletal model, *5th World Congress of Biomechanics*, 2006
  77. Zu Guang Zhang, Hiroshi Kimura and Yasuhiro Fukukoka, Autonomously generating efficient running of a quadruped robot using delayed feedback control, *Advanced Robotics*, 20, 6, 607-629, 2006
  78. Zu Guang Zhang, Hiroshi Kimura and Kunikatsu Takase, delayed feedback control, *Journal of Vibration and Control*, 12, 12, 1361-1383, 2006
  79. Takashi Takuma, Koh Hosoda, Controlling the Walking Period of a Pneumatic Muscle Walker, *International Journal of Robotics Research*, 25, 9, 861-866, 2006
  80. Hiroshi Kimura, Yasuhiro Fukuoka and Avis H. Cohen, Biologically Inspired Adaptive Walking of a Quadruped Robot, *Philosophical Transactions of the Royal Society A*, 365, 1850, 153-170, 2007
  81. Zu Guang Zhang, Hiroshi Kimura, and Yasuhiro Fukuoka, Self-Stabilizing Dynamics for a Quadruped Robot and Extension Towards Running on Rough Terrain, *Journal of Robotics and Mechatronics*, 19, 1, 2007
  82. K. Tsujita and T. Masuda, Simulation Study on Acquisition Process of Locomotion by using an Infant Robot, *International Journal of Advanced Robotic Systems*, (in press), 2006
  83. K. Tsujita, A. Morioka, K. Nakatani, K. Suzuki and T. Masuda, Oscillator-controlled Bipedal Walk with Pneumatic Actuators, *KSME International Journal*, (in press), 2006
  84. Takashi Takuma, Koh Hosoda, Controlling Walking Velocity of a Pneumatic Actuated Biped by Changing Hip Passivity, *Dynamic Walking 2006*, Poster-22, 2006
  85. Koh Hosoda, Takashi Takuma, and Athushi Nakamoto, Design and Control of a Running Biped with Pneumatic Artificial Muscles, *Dynamic Walking 2006*, 2006
  86. Tsuyoshi UENO, Yutaka NAKAMURA, Takashi TAKUMA, Tomohiro SHIBATA, Koh HOSODA, Shin ISHII, Fast and Stable Learning of Quasi-Passive Dynamic Walking by an Unstable Biped Robot based on Off-Policy Natural Actor-Critic, *International Conference on Intelligent Robots and Systems*, 5226-5231, 2006

87. Koh Hosoda, Takashi Takuma, and Atsushi Nakamoto, Design and Control of 2D Biped that can Walk and Run with Pneumatic Artificial Muscles, IEEE-RAS/RSJ International Conference on Humanoid Robots (Humanoids 2006), CD-ROM, 2006
88. K. Tsujita, A. Morioka, K. Nakatani, K. Suzuki and T. Masuda, Oscillator-controlled Bipedal Walk with Pneumatic Actuators, Proc. of Int. Conf. of Motion and Vibration Control, 670-675, 2006
89. K. Tsujita and T. Masuda, Simulation of Acquisition of Locomotion of an Infant Robot, Proc. of IEEE/RSJ IROS 2006, 4929-4934, 2006
90. Takaaki SUMI, Kousuke INOUE, Norikazu SATO, Shugen MA, Development of an Environmentally Adaptable Snake-Like Robot --Construction of a Neural Oscillator Network Capable of Changing Ground Friction--, Proceedings of 3rd International Conference on Brain-inspired Information Technology, 82, 2006
91. Y. Ninomiya, Y. Kayama, Y. Koyama, Postnatal development of cholinergic neurons in the mesopontine tegmentum revealed by histochemistry, Internat J Develop Neurosci, 23, 711-721, 2005
92. K. Takahashi, Q.-P. Wang, J.-L. Guan, Y. Kayama, S. Shioda and Y. Koyama, State-dependent effects of orexin on the serotonergic dorsal raphe neurons in the rat, Reg. Peptide, 126, 43-47, 2005
93. Q.-P. Wang, Y. Koyama, J.-L. Guan, Y. Kayama, K. Takahashi, and S. Shioda, The orexinergic synaptic innervation of serotonin- and orexin 1 receptor-containing neurons in the dorsal raphe nucleus, Reg. Peptide, 126, 35-42, 2005
94. Y. Yasoshima, N. Kai, S. Yoshida, S. Shiosaka, Y. Koyama, Y. Kayama Y., K. Kobayashi, Subthalamic neurons coordinate basal ganglia function through differential neural pathways, J. Neurosci., 25, 7743-7753, 2005
95. K. Takakusaki, K. Takahashi, K. Saitoh, H. Harada, T. Okumura, Y. Kayama, Y. Koyama, Orexinergic projections to the midbrain mediate alternation of emotional behavioral states from locomotion to cataplexy, J. Physiol., 568, 1003-1020, 2005
96. T. Sakurai, R. Nagata, A. Yamanaka, H. Kawamura, N. Tsujino, Y. Muraki, H. Kageyama, S. Kunita, S. Takahashi, K. Goto, Y. Koyama, S. Shioda, M. Yanagisawa, Input of orexin/hypocretin neurons revealed by genetically encoded tracer in mice, Neuron, 46, 297-308, 2005
97. T. Kodama, S. Usui, Y. Honda, M. Kimura, High Fos expression during the active phase in orexin neurons of a diurnal rodent, *Tamias sibiricus barberi*, Peptides, 26, 4, 631-638, 2005
98. T. Kodama, and Y. Koyama, Nitric oxide from the laterodorsal tegmental neurons: Its possible retrograde modulation on norepinephrine release from the axon terminal of the locus coeruleus neurons, Neuroscience, 138, 245-256, 2006
99. K. Takakusaki, K. Saito, T. Nonaka, T. Okumura, N. Miyokawa, Y. Koyama, Neurobiological basis of state-dependent control of motor behaviors, Sleep and Biological Rhythms, 4, 87-104, 2006
100. Y. Tamakawa, A. Karashima, Y. Koyama, N. Katayama and M. Nakao, A Quartet Neural System Model Orchestrating Sleep and Wakefulness Mechanisms, J Neurophysiol, 95, 2055-2069, 2006
101. K. Takahashi, J.S. Lin, K. Sakai, Neuronal activity of histaminergic tuberomammillary neurons during wake-sleep states in the mouse, J. Neuroscience, 26, 40, 10292-10298, 2006
102. K. Nakamura, Y. Koyama, K. Takahashi, et al., Requirement of tryptophan hydroxylase during development for maturation of sensorimotor gating, J Mol Biol, 363, 345-354, 2006
103. Osamu Fukayama, Noriyuki Taniguchi, Takafumi Suzuki, Kunihiro Mabuchi, Estimation of Locomotion Speed and Directions Changes to Control a Vehicle Using Neural Signals from the Motor Cortex of Rat, Proceedings of the 28th IEEE EMBS Annual International Conference, 1138-1141, 2006
104. Yasuhiro Kato, Itsuro Saito, Takayuki Hoshino, Takafumi Suzuki, Kunihiro Mabuchi, Preliminary Study of Multichannel Flexible Neural Probes Coated with Hybrid Biodegradable Polymer, Proceedings of the 28th IEEE EMBS Annual International Conference, 660-663, 2006
105. Takashi Sato, Takafumi Suzuki, Kunihiro Mabuchi, A new multi-electrode array design for chronic neural recording, with independent and automatic hydraulic positioning, Journal of Neuroscience Methods, 160, 45-51, 2007
106. Sakurai, Y., How can we detect ensemble coding by cell assembly, Representation and Brain, 2007 (in press)
107. Sakurai, Y., Takahashi, S., Dynamic synchrony of firing in the monkey prefrontal cortex during working memory tasks, Journal of Neuroscience, 26, 10141-10153, 2006
108. Koike, Y., Hirose, H., Sakurai, Y., Iijima, T., Prediction of arm trajectory from a small number of neuron

- activities in the primary motor cortex.,*Neuroscience Research*,56, 146-153,2006
109. Takahashi, S., Sakurai, Y. ,Sub-millisecond synchronization among pyramidal neurons in hippocampal CA1 of rats during delayed non-matching to sample task.,36th Society for Neuroscience Annual Meeting., 2006
  110. Hirokawa, J., M. Bosch, Sakata, S., Sakurai, Y., Yamatori, T.,A distinct area of rat visual cortex mediates behavioral enhancement by audiovisual integration.,36th Society for Neuroscience Annual Meeting., 2006
  111. Sakurai, Y.,Brain plasticity revealed with brain-machine interfaces,1st International Conference on Advanced Medical Engineering and Informatics. , 2006
  112. Nomura, M., Sakurai, Y., Kitano, K. & Aoyagi, T.,Applying the kernel method to multi-neuronal spike trains.,1st Symposium on Complex Medical Engineering. ,2006
  113. Aso T, Hanakawa T, Matsuo K, Toma K, Shibasaki H, Fukuyama H, Nakai T.,Subregions of human parietal cortex selectively encoding object orientation.,*Neuroscience Letters*, (in press),
  114. Sawamoto N, Honda M, Hanakawa T, Aso T, Inoue M, Toyoda H, Ishizu K, Fukuyama H, Shibasaki H. ,Role of the striatum in cognitive slowing in Parkinson's disease. ,*Neurology*, (in press),
  115. Yamada M, Namiki C, Hirao K, Hanakawa T, Fukuyama H, Hayashi T, Murai T.,Social cognition and frontal lobe pathology in schizophrenia: A voxel-based morphometric study. ,*Neuroimage*, (in press),
  116. Mikuni N, Okada T, Nishida N, Taki J, Enatsu R, Ikeda A, Miki Y, Hanakawa T, Fukuyama H, Hashimoto N ,Comparison between motor evoked potential recording and fiber tracking for estimating pyramidal tracts near brain tumors. ,*Journal of Neurosurgery*,106,1,128-133,2007
  117. Yamamoto A, Miki Y, Urayama S, Fushimi Y, Okada T, Hanakawa T, Fukuyama H, Togashi K.,Diffusion tensor fiber tractography of the optic radiation: analysis with 6-, 12-, 40- and 81-directional motion probing gradients; a preliminary study. ,*American Journal of Neuroradiology* ,28,1,92-96,2007
  118. Mikuni N, Okada T, Taki J, Matsumoto R, Nishida N, Enatsu R, Hanakawa T, Ikeda A, Miki Y, Urayama SI, Fukuyama H, Hashimoto N.,Fibers from the dorsal premotor cortex elicit motor-evoked potential in a cortical dysplasia. ,*Neuroimage*,34,1,12-18,2007
  119. Takaya S, Hanakawa T, Hashikawa K, Ikeda A, Sawamoto N, Nagamine T, Ishizu K, Fukuyama H. ,Prefrontal hypofunction in patients with intractable mesial temporal lobe epilepsy. ,*Neurology* ,67,9,1674-1676,2006
  120. Kikuta K, Takagi Y, Fushimi Y, Ishizu K, Okada T, Hanakawa T, Miki Y, Fukuyama H, Nozaki K, Hashimoto N,“Target bypass”: a method for preoperative targeting of a recipient artery in superficial temporal artery-to-middle cerebral artery anastomoses.,*Neurosurgery*,59,4,ONS-320-327,2006
  121. Okada T, Miki Y, Mikuni N, Kikuta K, Urayama S, Hanakawa T, Fukuyama H, Hashimoto N, Togashi K,Diffusion tensor tractography of corticospinal tract using 3-T combined with white matter stimulation mapping: an integrated approach to validate the corticospinal tract localization.,*Radiology*,240,3,849-857,2006
  122. Fukui H, Murai T, Shinozaki J, Aso T, Fukuyama H, Hayashi T, Hanakawa T.,The neural basis of social tactics: An fMRI study.,*Neuroimage*,32, 913-920,2006
  123. Bohlhalter S, Goldfine A, Matteson A, Garraux G, Hanakawa T, Kansaku K, Wurzman R, Hallett M.,Neural correlates of tic generation in Tourette syndrome: an event-related functional MRI study.,*Brain*,129,8, 2029-37,2006
  124. Callan D, Tsytsarev V, Hanakawa T, Callan A, Katsuhara M, Fukuyama H, Turner R.,Perception and covert generation of song and speech.,*Neuroimage*,31,3,1327-1342,2006
  125. Crinion J, Turner R, Grogan A, Hanakawa T, Noppeney U, Devlin JT, Aso T, Urayama S, Fukuyama H, Stockton K, Usui K, Green D, Price CJ.,Language control in the bilingual brain.,*Science*,312,5779,1537-1540,2006
  126. Hanakawa T, Honda M, Zito G, Dimyan MA, Hallett M. ,Brain activity during motor behavior triggered by arbitrary cues and spatially-constrained cues: An fMRI study in humans. ,*Experimental Brain Research*,172,2,275-282,2006
  127. Le Bihan D, Urayama S, Aso T, Hanakawa T, Fukuyama H,Direct and fast detection of neuronal activation in the human brain with diffusion MRI.,*Proceedings of National Academy of Science USA*,103,21,8263-8268,2006
  128. Fushimi Y, Miki Y, Kikuta K, Okada T, Kanagaki M, Yamamoto A, Nozaki K, Hashimoto N, Hanakawa T, Fukuyama H, Togashi K,Comparison of 3.0- and 1.5-T three-dimensional time-of-flight MR angiography in moyamoya disease: a preliminary experience.,*Radiology*,239,1,232-237,2006

129. Kikuta K, Takagi Y, Nozaki K, Hanakawa T, Okada T, Fushimi Y, Miki Y, Fukuyama H, Hashimoto N, Early experience with 3-tesla magnetic resonance tractography in the surgery of cerebral AVMs in and around the visual pathway. *Neurosurgery*, 58, 2, 331-337, 2006
130. Garraux G, Goldfine A, Bohlhalter S, Lerner A, Hanakawa T, Hallett M. The midbrain hypothesis in Tourette's syndrome: a reappraisal using voxel-based morphometry. *Annals of Neurology*, 59, 2, 381-385, 2006
131. Okada T, Miki Y, Fushimi Y, Hanakawa T, Kanagaki M, Yamamoto A, Urayama S, Fukuyama H, Hiraoka M, Togashi K, Diffusion tensor fiber tractography: Intra-individual comparison using 3 T and 1.5 T MRI. *Radiology*, 238, 2, 668-678, 2006
132. Fridman E, Immisch I, Hanakawa T, Bohlhalter S, Waldvogel D, Kansaku K, Wheaton L, Wu T, Hallett M, The role of the dorsal stream for gesture production. *Neuroimage*, 29, 2, 417-428, 2006
133. Hanakawa T, Neuroimaging of standing and walking: Special emphasis on Parkinsonian gait. *Parkinsonism and Related Disorders*, 12, Suppl 2, S70-75, 2006
134. Ihara M, Tomimoto H, Ishizu K, Yoshida H, Sawamoto N, Hashikawa K, Fukuyama H, Association of vascular parkinsonism with impaired neuronal integrity in the striatum. *Journal of Neural Transmission*, (in press),
135. Miyamoto JJ, Honda M, Saito DN, Okada T, Ono T, Ohyama K, Sadato N, The representation of the human oral area in the somatosensory cortex: a functional MRI study. *Cerebral Cortex*, 16, 5, 669-675, 2006
136. Qiu Y, Noguchi Y, Honda M, Nakata H, Tamura Y, Tanaka S, Sadato N, Wang X, Inui K, Kakigi R, Brain processing of the signals ascending through unmyelinated C fibers in humans: an event-related functional magnetic resonance imaging study. *Cereb Cortex*, 16, 9, 1289-1295, 2006
137. Aramaki Y, Honda M, Okada T, Sadato N, Neural correlates of the spontaneous phase transition during bimanual coordination. *Cereb Cortex*, 16, 9, 1338-1348, 2006
138. Aramaki Y, Honda M, Sadato N, Suppression of the non-dominant motor cortex during bimanual symmetric finger movement: a functional magnetic resonance imaging study. *Neuroscience*, 141, 4, 2147-2153, 2006
139. Saito DN, Okada T, Honda M, Yonekura Y, Sadato N, Practice makes perfect: the neural substrates of tactile discrimination by Mah-Jong experts include the primary visual cortex. *BMC Neurosci*, 5, 7, 79, 2006
140. Kiyoji Matsuyama K, Suguru Kobayashi, Mamoru Aoki, Projection patterns of lamina VIII commissural neurons in the lumbar spinal cord of the adult cat: an anterograde neural tracing study. *Neuroscience*, 140, 1, 203-218, 2006
141. Ying Cao, Yutaka Fujito, Kiyoji Matsuyama, Mamoru Aoki. Effects of electrical stimulation of the medullary raphe nuclei on respiratory movements in rats. *Journal of Comparative Physiology A: Sensory, Neural, and Behavioral Physiology*, 192, 5, 497-505, 2006
142. Ying Cao, Kiyoji Matsuyama, Yutaka Fujito, Mamoru Aoki. Involvement of medullary GABAergic and serotonergic raphe neurons in respiratory control: electrophysiological and immunohistochemical studies in rats. *Neuroscience Research*, 56, 3, 322-331, 2006
143. Kiyoji Matsuyama, Masanori Ishiguro, Suguru Kobayashi, Mamoru Aoki, Characteristics of the interlimb coordination between fore- and hindlimbs during hopping movements in decerebrate rabbits. *Neuroscience Meeting Planner of Neuroscience 2006 (36th Annual Meeting of the Society for Neuroscience)*, 648.14, 2006
144. M. Nakanishi, T. Nomura, S. Sato, Stumbling with optimal phase reset during gait can prevent a humanoid from falling. *Biological Cybernetics*, 95, 5, 503-515, 2006
145. Y. Yasutake, S. Taniguchi, T. Nomura, Non-Asymptotical Postural Stabilization Strategy during Human Quiet Stance. *Proceedings of the 28th IEEE EMBS Annual International Conference, New York City, USA, Aug 30-Sept 3*, 1189-1192, 2006
146. T. Ishikawa, Y. Kaji, T. Nomura, Sensory perception of unexpected sudden changes in floor level during human gait. *Proceedings of the 28th IEEE EMBS Annual International Conference, New York City, USA, Aug 30-Sept 3*, 4474-4477, 2006
147. Kazuhiko SEKI, Tomohiko Takei, Primary afferent depolarization evoked by natural stimulation of cutaneous afferent in monkey. *006 Neuroscience Meeting Planner. Atlanta, GA: Society for Neuroscience, 2006. Online.*, 627-54.8/P13628, 2006
148. Tomohiko Takei, Kazuhiko SEKI, Involvement of the primate spinal neurons in the control of precision grip. *006 Neuroscience Meeting Planner. Atlanta, GA: Society for Neuroscience, 2006. Online.*,

54.9/P14,2006

149. Tomohiko Takei, Kazuhiko SEKI, Spinomuscular coherence in monkey performing a precision grip task, Society for neural control of movement annual meeting abstract booklet, (in press), 2007
150. Ott S. R., Aonuma H., Newland P.L. and Elphick M.R. Nitric oxide synthase in crayfish walking leg ganglia: segmental differences in chemo-tactile centers argue against a generic role in sensory integration, *J. Comp. Neurol.*, 501, 381-399, 2007
151. Watanabe T., Kikuchi M., Hatakeyama D., Shiga T., Yamamoto T., Aonuma H., Takahata M., Suzuki N. and Ito E., Gaseous neuromodulator-related genes expressed in the brain of honeybee *Apis mellifera*, *Develop. Neurobiol.*, (in press), 2007
152. Ikeno H., Nishioka T., Hachida T., Kanzaki R., Seki Y., Ohzawa I., Usui S., Development and application of CMS based database modules for neuroinformatics. *Neurocomputing*, (in press), 2007
153. Wagatsuma A., Azami S., Sakura M., Hatakeyama D., Aonuma H. and Ito E., De novo synthesis of CREB in a presynaptic neuron is required for synaptic enhancement involved in memory consolidation, *J. Neurosci. Res.*, 84, 954-960, 2006
154. Matsumoto Y., Unoki S., Aonuma H. and Mizunami M., Nitric oxide-cGMP signaling is critical for cAMP-dependent long-term memory formation, *Learn. Mem.*, 13, 1, 35-44, 2006
155. Delago A. and Aonuma H. Experience based agonistic behavior in female crickets, *Gryllus bimaculatus*, *Zool. Sci.*, 23, 775-783, 2006
156. Iwasaki M., Delago A., Nishino H. and Aonuma H., Effects of previous experiences on the agonistic behaviour of male crickets *Gryllus bimaculatus*, *Zool. Sci.*, 23, 863-872, 2006
157. Niwa K., Sakai J., Karino T., Aonuma H., Watanabe T., Ohyama T., Inanami O. and Kuwabara M., Reactive oxygen species mediate shear stress-induced fluid-phase endocytosis in vascular endothelial cells, *Free Radical Res.*, 40, 2, 167-174, 2006
158. Yamasaki T., Isokawa T., Matsui M., Ikeno H. and Kanzaki R., Reconstruction and simulation for three-dimensional morphological structure of insect neurons. *Neurocomputing*, 69, 1043-1047, 2006
159. Kitamura Y., Aonuma H., Oka K. and Ogawa H., Acetylcholine enhances nitric oxide production in the terminal abdominal ganglion of the cricket, *Gryllus bimaculatus*, Society for Neuroscience, 351, 2006
160. Suzuki M., Kimura T., Ogawa H., Aonuma H., Kitamura Y., Hotta K. and Oka K., Peripheral nervous plexuses control squid chromatophore organs, Society for Neuroscience, 353, 2006
161. Tomohisa Fujiki, Kuniaki Kawabata, Hajime Asama, Adaptive Action Selection of Body Expansion Behavior in Multi-Robot System using Communication, *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 11, 2, 2007
162. Yusuke Fukazawa, Chomchana Trevai, Jun Ota and Tamio Arai, Acquisition of Intermediate Goals for an Agent Executing Multiple Tasks, *IEEE Transactions on Robotics*, 22, 5, 1034/1040, 2006
163. T. Fujiki, K. Kawabata, H. Aonuma, H. Asama, A Computational Model of the Adaptive Action Selection in Cricket Fighting Behavior by NO/cGMP Cascade, The 2nd International Workshop by Research Group of Invertebrate Nervous System of Japan, 8, 2006
164. Ashikaga, M., Hiraguchi, T., Sakura, M., Aonuma, H. and Ota, J., Modeling of Adaptive Behaviors of Crickets, 5th Forum of European Neuroscience Abstract Book (FENS Forum Abstracts), 3, A129.1, 2006
165. M. Ashikaga, M. Kikuchi, T. Hiraguchi, M. Sakura, H. Aonuma and J. Ota, Modeling of fighting behaviors in crickets, The 2nd International Workshop by Research Group of Invertebrate Nervous System of Japan, 7, 2006
166. Yusuke Tamura, Masao Sugi, Jun Ota and Tamio Arai, Prediction of Target Object Based on Human Hand Movement for Handing-Over between Human and Self-Moving Trays, *Proc. 15th IEEE Int. Symp. Robot and Human Interactive Communication (RO-MAN06)*, 189/194, 2006
167. Yusuke Tamura, Masao Sugi, Jun Ota and Tamio Arai, Handling-over between Human and Self-Moving Tray, *Proc. XVIII IMEKO World Congress Metrology for a Sustainable Development*, 2006
168. Daisuke Kurabayashi, Katsunori Urano, Tetsuro Funato, Tetsuro Funato: Emergent Transportation Networks by Considering Interactions between Agents and their Environment, *Advanced Robotics*, (in press), 2007
169. Daisuke Kurabayashi, Kunio Okita, Tetsuro Funato, Obstacle avoidance of a mobile robot group using a nonlinear oscillator network, *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 186-191, 2006
170. Tetsuro Funato, Hitoshi Aonuma, Daisuke Kurabayashi, Masahito Nara, Development of oscillator



- network model for behavioral processing,nd International Workshop by Research Group of Invertebrate Nervous System of Japan, 29-31,2006
171. Tetsuro Funato, Daisuke Kurabayashi, Masahito Nara, Synchronization Control by Structural Modification of Nonlinear Oscillator Network, 8th International Symposium on Distributed Autonomous Robotic Systems, 41-50, 2006
  172. Daisuke Kurabayashi, Tomohiro Inoue, Akira Yajima, Tetsuro Funato, Emergence of small-world in Ad-hoc communication network among individual agents, Intelligent Autonomous Systems 9, 605-612, 2006
  173. Cornette R, Koshikawa, S, Hojo M, Matsumoto T, Miura T, A caste-specific cytochrome P450 in the damp-wood termite *Hodotermopsis sjostedti* (Isoptera, Termopsidae), Insect Molecular Biology, 15, 235-244, 2006
  174. Garcia J, Maekawa K, Constantino R, Matsumoto T, Miura T, Analysis of the genetic diversity of *Nasutitermes coxipoensis* (Isoptera: Termitidae) in natural fragments of Brazilian cerrado savanna using AFLP markers. , Sociobiology, 48, 267-279, 2006
  175. Miura T, Caste development and division of labor in the processional nasute termite *Hospitalitermes medioflavus* in Borneo. , TROPICS, 15, 275-278, 2006
  176. Okada Y, Tsuji K, Miura T, Morphological differences between sexes in the ponerine ant *Diacamma* sp. (*Diacamma*: Ponerinae), Sociobiology, 48, 527-541, 2006
  177. Hojo M, Matsumoto T, Miura T, Cloning and expression of a geranylgeranyl diphosphate synthase gene - Insights into the synthesis of termite defense secretion. , Insect Molecular Biology, 16, 121-131, 2007
  178. Katoh H, Matsumoto T, Miura T, Alate differentiation and compound-eye development in the dry-wood termite *Neotermes koshunensis* (Isoptera, Kalotermitidae). , Insectes Sociaux, 54, (in press), 2007
  179. T. Miura, Heterochrony and modularity of the caste polyphenism in termites, XV Congress IUSI Proceedings, 103, 2006
  180. R. Cornette, S. Koshikawa, T. Matsumoto, T. Miura, Juvenile hormone and caste differentiation in the damp-wood termite *Hodotermopsis sjostedti*: histological and molecular approaches focused on the soldier differentiation, XV Congress IUSI Proceedings, 36-37, 2006
  181. S. Koshikawa, T. Miura, Gene expression analysis during caste differentiation in the damp-wood termite - perspective for genome-wide analysis, XV Congress IUSI Proceedings, 104, 2006
  182. S. Miyazaki, T. Murakami, N. Azuma, S. Higashi, T. Miura, Soldier-specific modification of the mandibular motor neurons in termites, XV Congress IUSI Proceedings, 255, 2006
  183. Y. Ishikawa, T. Miura, Soldier-specific modification of the mandibular motor neurons in termites, XV Congress IUSI Proceedings, 872-873, 2006
  184. A. Ishikawa, T. Miura, Developmental regulation of the wing polyphenism in aphids, XV Congress IUSI Proceedings, 229, 2006
  185. M. Hojo, T. Matsumoto, T. Miura, Geranylgeranyl diphosphate synthesis is related to the biosynthesis of defence secretion in *Nasutitermes takasagoensis* (Isoptera: Termitidae), XV Congress IUSI Proceedings, 222, 2006
  186. K. Maekawa, S. Mizuno, S. Koshikawa, T. Miura, Compound eye development during caste differentiation in the termite *Reticulitermes speratus* (Isoptera: Rhinotermitidae), XV Congress IUSI Proceedings, 225, 2006
  187. T. Matsumoto, T. Miura, S. Koshikawa, R. Cornette, K. Maekawa, O. Kitade, T. G. Myles, Phylogeny, evolution and colony composition of the primitive damp-wood termites (Termopsinae, Termopsidae, Isoptera) in Asia and North America, XV Congress IUSI Proceedings, 178-179, 2006
  188. Takeuchi, H., Paul, R. K., Matsuzaka, E., and Kubo, T. , EcR-A expression in the brain and ovary of the honeybee, Zool. Sci., (in press), 2007
  189. Uno, Y., Fujiyuki, T., Takeuchi, H., Morioka, M. and Kubo, T., Identification of proteins whose expression is up- or down-regulated in the mushroom bodies in the honeybee brain using proteomics, FEBS Lett., 581, 1, 97-101, 2007
  190. Hideaki Takeuchi, Gene expression in the Honeybee Brain Mushroom Body and its Gene Orthologues. , Evolution of Nervous Systems (Elsevier), 1, 457-469, 2006
  191. Fujiyuki, T., Ohka, S., Takeuchi, H., Ono, M., Nomoto, A., and Kubo, T. , Prevalence and phylogeny of Kakugo virus, a novel insect picorna-like virus that infects the honeybee (*Apis mellifera* L.), under various colony conditions. , J. Virol. , 80, 23, 11528-11538, 2006

192. Paul, R. K., Takeuchi, H. and Kubo, T. ,Expression of two ecdysteroid-regulated genes, Broad-Complex and E75, in the brain and ovary of the honeybee (*Apis mellifera* L.),*Zool. Sci.*,23,12,1085-1092,2006
193. Kunieda, T. Fujiyuki, T. Kucharski, R. Foret, S., Ament, S. A., Toth, A.L., Ohashi, K, Takeuchi, H, Kamikouchi, A., Kage, E., Morioka, M., Beye, M., Kubo, T., Robinson, G.E., Maleszka, R.,Carbohydrate metabolism genes and pathways in insects: insights from the honey bee genome. *Insect Mol. Biol.*,15,5,563-576,2006
194. Yamazaki, Y., Shirai, K., Paul, R. K., Fujiyuki, T., Wakamoto, A., Takeuchi, H., and Kubo, T.,Differential expression of HR38 in the mushroom bodies of the honeybee brain depends on the caste and division of labor. *FEBS Lett.*,580,11,2667-2770,2006
195. Hori, S.,Takeuchi, H., Arikawa, K., Kinoshita, M., Ichikawa, N., Sasaki, M., and Kubo, T.,Associative visual learning, color discrimination, and chromatic adaptation in the harnessed honeybee *Apis mellifera* L. *J. Comp.Physiol. A*,192,7,691-700,2006
196. Lehman, H. K., Schulz, D. J., Barron, A. B., S. A., Wraight, L., Hardison, C., Whitney, S., Takeuchi, H., Paul, R. K., and Robinson, G. E.,Division of labor in the honey bee (*Apis mellifera*): The role of tyramine beta-hydroxylase, *J. Exp.Biol.*,209,14,2774-2784,2006
197. The Honeybee Genome Sequencing Consortiu,Insights into social insects from the genome of the honey bee *Apis mellifera*. *Nature*,443,7114,931-949,2006
198. Mamiko Ozaki,Ant nestmate and non-nestmate discrimination by a sensillum,15<sup>th</sup> Internatoinal Union for the Study of Social Insects , 130,2006
199. Wakako Omura, Mamiko Ozaki, Ryohei Yamaoka,Behabioral and electrophysiopogical investigation on taste response of the termite *Zootermopsis nevadensis* to wood extractives,*J. Wood Sci.*,52, 261-264,2006
200. Kazumitsu Hanai, Mamiko Ozaki, Daigo Yamauchi, Yasuhiro Nakatomi, Chihiro Yokoyama and Keniji Fukui,Scale free dynamics involved in the locomotion activity of ant and mouse,WSEAS Transactions on Biology and Biomedicine,3, 511-515,2006
201. Takayuki Watanabe, Mika Kikuchchi, Dai Hatakeyama, Takumi Shiga, Takehiro Yamamoto, Hitoshi Aonuma, Masakazu Takahata, Norio Suzuki, and Etsuro Ito,Gaseous neuromodulator-related genes expressed in the brain of honeybee *Apis mellifera*,*Developmental Neurobiology*, (in press),
202. Takayuki Yamasaki, Teijiro Isokawa, Nobuyuki Matsui, Hidetoshi Ikeno, Ryohei Kanzaki,Reconstruction and simulation for three-dimensional morphological structure of insect neurons,*Neurocomputing*,69, 1043-1047,2006
203. Hidetoshi Ikeno, Takuto Nishioka, Takuya Hachida, Ryohei Kanzaki, Yoichi Seki, Izumi Ohzawa, Shiro Usui,Development and application of CMS based database modules for neuroinformatics,Annual Computational Neuroscience Meeting 2006, 60,2006
204. Tadahiro Taniguchi, Tetsuo Sawaragi,Incremental Acquisition of Behaviors and Signs based on Reinforcement Learning Schema Model and STDP, *Advanced Robotics*, (in press),2007
205. Tetsuo Sawaragi, Yukio Horiguchi and Yuji Kuroda,Editing and Distributing Human Skills within community via Fragmentary Annotations on Image Data,Preprints of the 8th IFAC Symposium on Automated Systems Based on Human Skill and Knowledge, CD-ROM,2006
206. Tetsuo Sawaragi and Yukio Horiguchi,Human-Robot Collaboration: Technical Issues from a Viewpoint of Human-Centered Automation,Proc. of International Symposium on Automation and Robotics in Construction 2006, CD-ROM,2006
207. Tetsuo Sawaragi, Yukio Horiguchi and Akihiro Hina,Safety Analysis of Systemic Accidents Triggered by Performance Deviation,Proceedings of SICE-ICASE International Joint Conference 2006, 1778-1781 ,2006
208. Yukio Horiguchi, Ryuichi Fukuju and Tetsuo Sawaragi,An Estimation Method of Possible Mode Confusion in Human Work with Automated Control Systems,Proceedings of SICE-ICASE International Joint Conference 2006, 943-948,2006
209. T. Taniguchi, T. Sawaragi,Symbol emergence by combining a reinforcement learning schema model with asymmetric synaptic plasticity,Proceedings in 5th International Conference on Development and Learning, CD-ROM,2006
210. T. Taniguchi, T. Sawaragi,Incremental Acquisition of Compositional Schemata based on Behavioral Learning,Proceedings of 6th International Workshop on Epigenetic Robotics, 187,2006
211. Kazuki Tsuji , Tomonori Sasaki , Hideaki Mori,Shigeto Dobata, Eisuke Hasegawa —,Evolutionary Dynamics of altruists vs. social parasites in the ant *Pristomyrmex punctatus*,XV IUSSI (the International

- Union for the study of social insects) Congress Proceedings, 122,2006
212. Kazuki Tsuji, Hisashi Ohtsuki, Reproductive allocation conflict causes worker policing in hymenopteran societies, XV IUSSI Congress Proceedings, 131,2006
  213. Yasukazu Okada, Kazuki Tsuji, Toru Miura, Behavioral ontogeny followed by reproductive division of labor in the Japanese ponerine ant *Diacamma* sp., XV IUSSI Congress Proceedings, 246,2006
  214. Shigeto Dobata, Tomonori Sasaki, Masakazu Shimada, Kazuki Tsuji, Spatially explicit model for altruist-cheater population dynamics in the ant *Pristomyrmex punctatus*, XV IUSSI Congress Proceedings, 256,2006
  215. Mayuko Suwabe, Hitoshi Ohnishi, Tomonori Kikuchi, Kazuki Tsuji, Distributional and seasonal activity patterns of exotic and native ants in Okinawa island, XV IUSSI Congress Proceedings, 263,2006
  216. J. Le Breton, G. Takaku, K. Tsuji, Brood parasitism in an invasive population of the pest ant *Pheidole megacephala*, *Insectes Sociaux*, 53,2, 168-171,2006
  217. Kikuchi, T., Tsuji, K., Ohnishi, H., Le Breton, J., Caste-biased acceptance of non-nestmates in a polygynous ponerine ant, *Animal Behaviour*, (in press),2007
  218. Kazuki Tsuji, Life history strategy and evolution of insect societies: age structure, spatial distribution and density dependence. V. E. Kipyatkov (ed.): *Life Cycles in Social Insects: Behaviour, Ecology and Evolution*. St. Petersburg University Press, St. Petersburg, 156 p., 21-36,2006
  219. K. Oka, A. Fujimura, K. Hotta, H. Ogawa, Analysis of vocal communication between male and female zebra finches, Fifth East Asian Biophysics Symposium & Forty-Fourth Annual Meeting of the Biophysical Society of Japan, 2P370,2006
  220. Tomoko Akiyama, Motoichiro Kato, Taro Muramatsu, Satoshi Umeda, Fumie Saito, Haruo Kashima, Unilateral amygdala lesions hamper attentional orienting triggered by gaze direction, *Cerebral Cortex*, (in press),2007
  221. Tomoko Akiyama, Motoichiro Kato, Taro Muramatsu, Takaki Maeda, Tsunekatsu Hara, Haruo Kashima, Gaze-triggered orienting is reduced in chronic schizophrenia. *Psychiatry Research*, (in press),2007
  222. K. Sasaki and K. Asaoka, Swallowing motor pattern triggered and modified by taste information in larvae of the silkworm, *Bombyx mori*, *Journal of Insect Physiology*, 52, 528-537,2006
  223. H. Shiga, J. Murakami, T. Nagao, M. Tanaka, K. Kawahara, I. Matsuoka and E. Ito, Glutamate release from astrocytes is stimulated via the appearance of exocytosis during cyclic AMP-induced morphologic changes, *Journal of Neuroscience Research*, 84, 338-347,2006
  224. K. Sasaki and K. Harano, Potential effects of tyramine on the transition of reproductive workers in honeybees (*Apis mellifera* L.), *Physiological Entomology*, 32, (in press),2007
  225. K. Harano, M. Sasaki and K. Sasaki, Effects of reproductive state on rhythmicity, locomotor activity and body weight in European honeybee, *Apis mellifera* (Apidae: Hymenoptera) queens, *Sociobiology*, 49, (in press),2007
  226. J. Murakami, H. Aonuma and T. Nagao, Nitric oxide mediated biogenic amine system in the agonistic behavior of cricket, KIT International Symposium on Brain and Language 2005, 23,2006
  227. K. Harano, K. Sasaki and T. Nagao, Dopamine levels associated with physiological and behavioral changes after mating in European honeybee queens, 8th Asian Australian Apicultural Conference Proceedings, 32,2006
  228. K. Harano, K. Sasaki, T. Nagao and M. Sasaki, Decline of dopamine levels after mating and its association with behavioral changes in European honeybee queens, 11th Biological Sciences Graduate Congress Proceedings, 18,2006
  229. K. Sasaki, K. Yamasaki and T. Nagao, Physiological correlates of brain biogenic amines with dominance and reproductive behaviors in primitive paper wasps *Polistes chinensis*, KIT International Symposium on Brain and Language Proceedings, 28-29,2006
  230. K. Harano, K. Sasaki and T. Nagao, Dopamine levels associated with physiological and behavioral changes after mating in European honeybee queens, KIT International Symposium on Brain and Language Proceedings, 24-25,2006
  231. T. Narita, K. Harano and K. Sasaki, Involvement of dopamine and its receptor with transition of reproductive states in honeybee workers, KIT International Symposium on Brain and Language Proceedings, 21-22,2006
  232. M. Sugiyama, K. Sasaki, T. Nagao and K. Iwabuchi, Involvement of biogenic amines with escape

- behaviors of host *Acanthoplistia* agnate parasitized by endoparasitic wasp *Glyptapanteles pallipes*,KIT International Symposium on Brain and Language Proceedings, 26-27,2006
233. Y Tamori and N Tomita,Orbital representation of auditory perception,The 10th meeting of Association for the Scientific Study of Consciousness, 2006
  234. K Mogi and Y Tamori,Making good hidden figures,The 29th European Conference on Visual Perception, 2006
  235. K. Sasaki,Reorganization of the central nervous system responding to changes in social environment in insects,ESB Special Seminar, 2007
  236. Hihara S, Notoya T, Tanaka M, Ichinose S, Ojima H, Obayashi s, Fujii N, Iriki A,Extension of corticocortical afferents into the anterior bank of the intraparietal sulcus by tool-use training in adult monkeys.,*Neuropsychologia*,44,13,2636-46,2006
  237. N. FUJII, S. HIHARA, A. IRIKI,Conflicting social environment represented in primate parietal cortex,Atlanta, GA: Society for Neuroscience, 2006., 63.6,2006
  238. N. FUJII, D. ABLA, N. KUDO, S. HIHARA, K. OKANOYA, A. IRIKI, Prefrontal cortex manipulates abstract odour knowledge,Atlanta, GA: Society for Neuroscience, 2006., 263.17,2006
  239. M. Iribe, K. Osuka,Analogy between Passive walking robot and Phase Locked Loop circuit,Proceedings of the SICE-ICASE International Joint Conference 2006 (SICE-ICCAS 2006), C D,2006
  240. M. Iribe, K. Osuka,Analysis and stabilization of the passive walking robot via analogy with the Phase Locked Loop circuits,Proceedings of the IEEE-RAS/RSJ International Conference on Humanoid Robots (Humanoids 2006), C D,2006
  241. M. Iribe, K. Osuka,A designing method of the passive dynamic walking robot via analogy with the Phase Locked Loop circuits,Proceedings of the 2006 IEEE International Conference on Robotics and Biomimetics (ROBIO2006), C D,2006
  242. Akio Ishiguro,Hiroaki Matsuba,Tomoki Megawa,Masahiro Shimizu,A Modular Robot That Self-Assembles,*Intelligent Autonomous Systems*,9, 585-594,2006
  243. Akio Ishiguro,Masahiro Shimizu,Toshihiro Kawakatsu,A Modular Robot That Exhibits Amoebic Locomotion,*Robotics and Autonomous Systems*,54, 641-650,2006
  244. Akio Ishiguro,Mobiligence: The Emergence of Adaptive Motor Function through Interaction Among the Body, Brain, and Environment,50th Anniversary Summit of Artificial Intelligence, 2006
  245. Masahiro Shimizu, Takafumi Mori, Akio Ishiguro,A Development of a Modular Robot That Enables Adaptive Reconfiguration ,2006 IEEE/RSJ International Conference on Intelligent Robots and Systems, 174-179,2006
  246. Akio Ishiguro, Tomoki Maegawa,Self-Assembly Through the Interplay between Control and Mechanical Systems ,2006 IEEE/RSJ International Conference on Intelligent Robots and Systems, 631-638,2006
  247. Takuya Umedachi, Akio Ishiguro,A Development of a Fully Self-contained Real-time Tunable Spring ,2006 IEEE/RSJ International Conference on Intelligent Robots and Systems, 1662-1667,2006
  248. Dai Owaki, Akio Ishiguro,Enhancing Stability of a Passive Dynamic Running Biped by Exploiting a Nonlinear Spring ,2006 IEEE/RSJ International Conference on Intelligent Robots and Systems, 4923-4928,2006
  249. Tomoki Maegawa, Akio Ishiguro,Self-reconfiguration by a Modular Robot That Has a Cell-differentiation Ability,SICE-ICASE International Joint Conference 2006, 2073-2077,2006
  250. Masahiro Shimizu, Takafumi Mori, Toshihiro Kawakatsu, Akio Ishiguro,An Adaptive Morphology Control of a Modular Robot,SICE-ICASE International Joint Conference 2006, 4509-4514,2006
  251. Dai Owaki, Akio Ishiguro,Enhancing Self-stability of a Passive Dynamic Runner by Exploiting Nonlinearity in the Leg Elasticity ,SICE-ICASE International Joint Conference 2006, 4532-4537,2006
  252. H. Shioya, K. Gohara,Generalized phase retrieval algorithm based on information measures ,*Optics Communications*,266,1,88-93,2006
  253. M. Nagayama, T. Uchida, K. Gohara,Temporal and Spatial variations of Lipid Droplets during Adipocyte Division and Differentiation,*J. Lipid Res.*,48,1,9-18,2007
  254. K. Gohara,Fractals in Hybrid Systems,Proceedings of Nonlinear Theory and Application, 171-174,2006
  255. M. Uchida, Y. Maehara, H. Shioya and W.T. Huang,Unsupervised Weight Parameter Estimation Method for Ensemble Learning,Proceedings of Joint 3rd International conference on Soft computing and Intelligent systems and 7th International Symposium on advanced Intelligent Systems (SCIS & ISIS 2006), 416-421,2006

256. D. Kitakoshi, H. Shioya and R. Nakano, Stochastic Information Expressed in an Mixture Model of Bayesian Networks - Applying to Adaptive Learning for Mobile Robots in Actual Environments, Proceedings of Joint 3rd International conference on Soft computing and Intelligent systems and 7th International Symposium on advanced Intelligent Systems (SCIS & ISIS 2006), 636-643, 2006
257. H. Diebner and I. Tsuda, Fundamental Interfaciology: Indistinguishability and Time's arrow, Proceedings of the Foundation of Information Science 2005, 1-16, 2005
258. H. Fujii and I. Tsuda, Interneurons: their cognitive roles - A perspective from dynamical systems view, The Fourth IEEE International Conference in Development and Learning - from Interaction to Cognition., 1-6, 2005
259. Y. Yamaguti, S. Kuroda and I. Tsuda, A mathematical model for the hippocampus: Toward the understanding of episodic memory, Abstracts: The 8th RIES-Hokudai International Symposium on [bi], 108-109, 2006
260. K. Matsumoto and I. Tsuda, Controlling engine data: Nonperiodic fluctuations in a spark ignition engine of motorcycle and its stabilization, Abstracts: The 8th RIES-Hokudai International Symposium on [bi], 110-111, 2006
261. S. Tadokoro, Y. Yamaguti, I. Tsuda and H. Fujii, Chaotic itinerancy in gap junction-coupled class I\* neurons, Abstracts: The 8th RIES-Hokudai International Symposium on [bi], 112-113, 2006
262. Masaki Nomura, Toshio Aoyagi, Stability of Synchronous Solutions in Weakly Coupled Neuron Networks, Progress of Theoretical Physics, 113, 911-925, 2005
263. Takashi Takekawa, Toshio Aoyagi, Tomoki Fukai, Synchronization properties on slow oscillatory activity in a cortex network model, Progress of Theoretical Physics Supplement, S161, 356-359, 2006
264. Masaki Nomura, Takuma Tanaka, Takeshi Kaneko Toshio Aoyagi, Phase analysis of inhibitory neurons involved in the thalamocortical loop, Progress of Theoretical Physics Supplement, S161, 310-313, 2006
265. Takaaki Aoki, Toshio aoyagi, A Possible Role of Incoming Spike Synchrony in Associative Memory Model with STDP Learning rule, International Symposium on Oscillation, Progress of Theoretical Physics Supplement, S161, 152-155, 2006
266. Takaaki Aoki, Toshio aoyagi, Synchrony-induced switching behavior of spike-pattern attractors created by spike-timing dependent plasticity, Neural Computation, (in press),
267. Takaaki Aoki, Toshio aoyagi, Self-Organizing maps with Asymmetric Neighborhood function, Neural Computation, (in press),
268. Masaki Nomura, Toshio Aoyagi, Stability Analysis of Synchronous and Asynchronous Behavior in Periodically Spiking Neurons, The First International Conference on Complex Medical Engineering-CME2005, OS06.4, CD-ROM, 2005
269. Y. Taniai, J. Nishii, Optimality of the minimum endpoint variance model based on energy consumption, Brain-inspired IT II: Decision and Behavioral Choice Organized by Natural And Artificial Brains, 1291, 101-104, 2006
270. Takeuchi, H., Paul, R. K., Matsuzaka, E., and Kubo, T. ,EcR-A expression in the brain and ovary of the honeybee, Zool. Sci., in press,, 2007
271. Uno, Y., Fujiyuki, T., Takeuchi, H., Morioka, M. and Kubo, T., Identification of proteins whose expression is up- or down-regulated in the mushroom bodies in the honeybee brain using proteomics., FEBS Lett., 581, 1, 97-101, 2007
272. Hideaki Takeuchi, Gene expression in the Honeybee Brain Mushroom Body and its Gene Orthologues. , Evolution of Nervous Systems (Elsevier), 1, 457-469, 2006
273. Fujiyuki, T., Ohka, S., Takeuchi, H., Ono, M., Nomoto, A., and Kubo, T. , Prevalence and phylogeny of Kakugo virus, a novel insect picorna-like virus that infects the honeybee (*Apis mellifera* L.), under various colony conditions. , J. Virol. , 80, 23, 11528-11538, 2006
274. Paul, R. K., Takeuchi, H. and Kubo, T. , Expression of two ecdysteroid-regulated genes, Broad-Complex and E75, in the brain and ovary of the honeybee (*Apis mellifera* L.), Zool. Sci., 23, 12, 1085-1092, 2006
275. Kunieda, T. Fujiyuki, T. Kucharski, R. Foret, S., Ament, S. A., Toth, A.L., Ohashi, K., Takeuchi, H., Kamikouchi, A., Kage, E., Morioka, M., Beye, M., Kubo, T., Robinson, G.E., Maleszka, R., Carbohydrate metabolism genes and pathways in insects: insights from the honey bee genome. , Insect Mol. Biol., 15, 5, 563-576, 2006
276. Yamazaki, Y., Shirai, K., Paul, R. K., Fujiyuki, T., Wakamoto, A., Takeuchi, H., and Kubo, T., Differential

- expression of HR38 in the mushroom bodies of the honeybee brain depends on the caste and division of labor. *FEBS Lett.*,580,11,2667-2770,2006
277. Hori, S., Takeuchi, H., Arikawa, K., Kinoshita, M., Ichikawa, N., Sasaki, M., and Kubo, T., Associative visual learning, color discrimination, and chromatic adaptation in the harnessed honeybee *Apis mellifera* L. *J. Comp. Physiol. A*, 192, 7, 691-700, 2006
  278. Lehman, H. K., Schulz, D. J., Barron, A. B., S. A., Wraight, L., Hardison, C., Whitney, S., Takeuchi, H., Paul, R. K., and Robinson, G. E., Division of labor in the honey bee (*Apis mellifera*): The role of tyramine beta-hydroxylase. *J. Exp. Biol.*, 209, 14, 2774-2784, 2006
  279. Yasuaki Kuroe and Kei Miura, Generation of Oscillatory Trajectories with Specified Stability Degree Using Recurrent Neural Networks, Proc. of International Joint Conference on Neural Networks, 6510-6517, 2006
  280. Yasuaki Kuroe and Yuriko Taniguchi, Models of Self-Correlation Type Complex-Valued Associative Memories and Their Performance Comparison, Proc. of International Joint Conference on Neural Networks, 605-609, 2006
  281. Yasuaki Kuroe and Hitoshi Iima, A Learning Method for Synthesizing Spiking Neural Oscillators, Proc. of International Joint Conference on Neural Networks, 7613-7617, 2006
  282. Yoshihiro Mori, Yasuaki Kuroe and Takehiro Mori, A Synthesis Method of Gene Networks Based on Gene Expression by Network Learning, Proc. of SICE-ICASE International Joint Conference, 4545-4550, 2006
  283. Nishikawa I., Iritani T., Sakakibara K., and Kuroe Y., "Phase Synchronization in Phase Oscillators and Complex-Valued Neural Networks and its Application to Traffic Flow Control", *Progress of Theoretical Physics Supplement*, 161, "302-305", 2006
  284. "Nishikawa I., Iritani T., and Sakakibara K.", "Improvements of the Traffic Signal Control by Complex-valued Neural Networks", *Proceedings of IEEE World Congress on Computational Intelligence 2006*, "1186-1191", 2006
  285. Nishikawa I., Sakamoto H., Nouno I., Iritani T., Sakakibara K. and Ito M., "Prediction of the O-glycosylation sites in Protein by Layered Neural Networks and Support Vector Machines", *Lecture Notes in Artificial Intelligence 4252*, Part II, "953-960", 2006
  286. Nouno, I., Sakamoto, H., Iritani, T., Sakakibara, K., Nishikawa, I. and Ito, M., "Prediction of Mucin-type O-glycosylation by Layered Neural Networks and Support Vector Machines", *Proceedings of the 17th International Conference on Genome Informatics 2006*, P111\_1-2, 2006
  287. Sakakibara K., Noishiki M., Watanabe S., Tamaki H. and Nishikawa I., "Hierarchical Approach with Informational Feedback for Pickup and Delivery Problems", *Proceedings of the International Symposium on Scheduling 2006*, 48-53, 2006
  288. Khoa N.L.D., Noishiki M., Sakakibara K., and Nishikawa I., "Stock Price Forecasting using Neural Networks with Inputs selected by Genetic Algorithm", *Proceedings of the 5th International Conference on Research, Innovation and Vision for the Future*, 2007
  289. Khoa, N. L. D., Sakakibara, K., Nishikawa, I., "Stock price forecasting using back propagation neural networks with time and profit based adjusted weight factors", *Proceedings of SICE-ICASE 2006*, 5484-5488, 2006
  290. "Noishiki M., Sakakibara K., Nishikawa I., Tamaki H. and Nakayama K.", "Autonomous Distributed Genetic Approach for Route Planning Problems", *Proceedings of SICE-ICASE 2006*, 6075-6079, 2006
  291. Sakakibara K., Noishiki M., Tamaki H. and Nishikawa I., "A Study on Distributed Meta-Heuristic Approach for Route Planning", *Proceedings of SICE-ICASE 2006*, 4977-4980, 2006

## Awards

1. Masashi Ito and Masafumi Yano 4th joint meeting of ASA/ASJ, 28 November--2 December 2006, Honolulu, Hawaii, The second place winner of the Best Student Paper in Speech Communication, "Pitch determination and sinusoidal modeling for time-varying voiced speech," *J. Acoust. Soc. Am.* 120(5), pp.

3376.

2. Yasuaki Kuroe and Hitoshi Iima: World Congress of Computational Intelligence, Best Session Paper Award, A Learning Method for Synthesizing Spiking Neural Oscillators, July 20, 2006, Proc. of International Joint Conference on Neural Networks, pp.7613-7617, 2006
3. Takuya Umedachi, Akio Ishiguro: 2006 IEEE Robotics and Automation Society Japan Chapter Young Award (IROS) 「Development of a Fully Self-contained Real-time Tunable Spring」, 2006年10月11日 Proc. of 2006 IEEE/RSJ International Conference on Intelligent Robots and Systems, WP2-6(3), 2006