Advisory Committee

Stephen Grossberg Jay McClelland James Olds Linda Smith Mriganka Sur

Program Committee

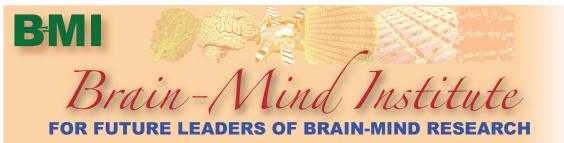
Yiannis Aloimonos Minoru Asada Luis M. A. Betterncourt Angelo Cangelosi Shantanu Chakrabartty Yoonsuck Choe Wlodzislaw Duch Zhengping Ji Yaochu Jin Pinaki Mazumder Yan Meng Ali A. Minai Jun Miao Thomas R. Shultz Linda Smith Juyang Weng Xiaofeng Wu Ming Xie Xiangyang Xue Chen Yu Cha Zhang Shuging Zeng

Conference Committee

Jianda Han Kazuhiko Kawamura Minho Lee Danil Prokhorov Katharina J. Rohlfing Matthew Schlesinger Jochen Triesch Hiroaki Wagatsuma

MSU Steering Committee

Alan Beretta Andrea Bozoki Jay P. Choi Lynwood G. Clemens Kathy Steece-Collier Steve W. J. Kozlowski Jiaguo Qi Frank S. Ravitch Fathi Salem George Stockman Yang Wang Juyang Weng David C. Zhu



Summer School Mon. June 25 - Fri., August 3, 2012 International Conference on Brain-Mind (ICBM) Sat. July 14, 2012 - Sun. July 15, 2012 Michigan State University, East Lansing, Michigan USA http://www.brain-mind-institute.org/

Collectively, the human race seems ready to unveil one of its last mysteries how its brain-mind works at computational depth. The research community needs a large number of leaders who have sufficient knowledge in at least six disciplines conjunctively — Biology, Neuroscience, Psychology, Computer Science, Electrical Engineering, and Mathematics (6 disciplines). The Brain-Mind Institute (BMI) provides an integrated 6-discipline academic and research infrastructure for future leaders of brain-mind research. The BMI is a new kind of institute, not limited by boundaries of disciplines, organizations, and geographic locations.

The subjects of interest include, but not limited to:

Genes: inheritance, evolution, species, environments evolution vs. development.
Cells: cell models, cell learning, cell signaling, tissues, morphogenesis, tissue.
Circuits: features, clustering, self-organization, brain areas, classification, regression.
Streams: pathways, intra-modal attention, vision, audition, touch, taste.
Brain ways: neural networks, brain-mind architecture, inter-modal, neural modulation (punishment/serotonin, reward/dopamine, novelty/Ach/NE, higher emotion).
Experiences/learning: training, learning, development, interaction, intelligence metrics.
Behaviors: actions, concept learning, abstraction, languages, decision, reasoning.
Societies/multi-agent: joint attention, swarm intelligence, group intelligence, laws.
Diseases: depression, ADD/ADHD, drug addiction, dyslexia, autism, schizophrenia, Alzheimer's disease, Parkinson's disease, vision loss, and hearing loss.
Applications: image analysis, computer vision, speech recognition, pattern recognition, robotics, artificial intelligence, instrumentation, and prosthetics.

Keynote talks include:

James L. McClelland, Stanford University Stephen Grossberg, Boston University

Important dates:

Full papers: by Sunday, March 4, 2012 Abstracts: by Sunday, March 11, 2012 Course applications: by Sunday, March 18, 2012 Advance registration: Sunday, April 15, 2012 Instructor applications: Sunday, April 22, 2012