

# The 2010 International Conference on Brain Informatics – BI 2010

August 28-30 2010, Toronto, Canada

## Call for Papers

<http://www.wici-lab.org/amtb10/>  
<http://www.yorku.ca/amtbi10>

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## INTRODUCTION

Brain Informatics 2010 will be jointly held with the 2010 International Conference on Active Media Technology (AMT 2010). The two conferences will have a joint opening, keynote, reception, and banquet. Attendees only need to register for one conference and can attend sessions, exhibits and demonstrations across the two conferences.

The AMT-BI 2010 joint conference is organized by Web Intelligence Consortium (WIC) (<http://wiconsortium.org>) and IEEE Task Force on Brain Informatics (IEEE TF-BI).

### The topics and areas include, but not limited to:

#### 1. Thinking and perception-centric investigations of HIPS:

- \* Human reasoning mechanisms (e.g., principles of human deductive/inductive reasoning, common-sense reasoning, decision making, and problem solving)
- \* Human learning mechanisms (e.g., stability, personalized user/student models)
- \* Emotion, heuristic search, information granularity, and autonomy related issues in human reasoning and problem solving
- \* Human higher cognitive functions and their relationships
- \* Human multi-perception mechanisms and visual, auditory, and tactile information processing
- \* Methodologies for systematic design of cognitive experiments
- \* Investigating spatiotemporal characteristics and flow in HIPS and the related neural structures and neurobiological process
- \* Cognitive architectures; their relations to fMRI/EEG/MEG
- \* HIPS meets complex systems
- \* Modeling brain information processing mechanisms (e.g., neuro-mechanism, mathematical, cognitive and computational models of HIPS).

#### 2. Information technologies for the management and use of brain data:

- \* Human brain data collection, pre-processing, management, and analysis
- \* Databasing the brain and constructing data brain models
- \* Data brain modeling and formal conceptual models of human brain data
- \* Multi-media brain data mining and reasoning
- \* Multi-aspect analysis in fMRI/EEG/MEG activations
- \* Simulating spatiotemporal characteristics and flow in HIPS
- \* Developing brain data grids and brain research support portals
- \* Knowledge representation and discovery in neuroimaging
- \* Multimodal information fusion for brain image interpretation
- \* Statistical analysis and pattern recognition in neuroimaging

#### 3. Applications

- \* Neuro-economics and neuro-marketing
- \* Brain-Computer-Interface (BCI)
- \* Brain/Cognition inspired artificial systems
- \* Wisdom Web systems based on new cognitive and computational models
- \* MCI and AD diagnosis
- \* e-Science and e-Medicine

## IMPORTANT DATES

Electronic submission of full papers: **March 31, 2010**  
Notification of paper acceptance: **June 1, 2010**  
Camera-ready of accepted papers: **June 24, 2010**  
Conference: **August 28-30, 2010**

## PAPER SUBMISSION

High-quality papers in all BI related areas are solicited. Papers exploring new directions will receive a careful and supportive review. All submitted papers will be reviewed on the basis of technical quality, relevance, significance, and clarity.

The proceeding of the conference will be published by Springer as a volume of the series of Lecture Notes in Computer Science/Lecture Notes in Artificial Intelligence (LNCS/LNAI). Extensions of selected papers from the proceedings will be considered for publication in special issues of international journals.

Authors are strongly encouraged to use Springer LNCS/LNAI manuscript submission guidelines (available at <http://www.springer.de/comp/lncs/authors.html>) for their initial submissions. All papers must be submitted electronically in PDF format only, using the conference management tool.

More detailed instructions and a paper submission form can be found the BI'10 Web page at <http://wici-lab.org/amtbi10/>

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