



The 2017 International Conference on Brain Informatics (BI 2017)

November 16-18, 2017 in Beijing, China



The 2017 International Workshop on Big Data Neuroimaging Analytics for Brain and Mental Health (BDNABMH 2017)

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Introduction

With rapid advances in neuroimaging techniques, the brain science is experiencing rapid changes with efficient noninvasive ways (such as fMRI, EEG, fNIRS, MEG, etc) for studying the functional activity of the human brain, either normal or in a diseased state. The research on brain and mental health from big brain data has become an emerging area for both data mining and neuroscience community. Big data analytics and machine learning plays an increasingly important role to aid clinical diagnosis, clarify underlying mechanisms, and inform neuroprotective interventions to slow or reverse neural injury for a broad spectrum of brain disorders and mental problems, including depression, epilepsy, autism, Alzheimer's disease, Parkinson's disease, etc. An accurate assessment of brain health status has the potential to greatly help patients with brain disorders and reduce medical costs largely to families and society. However, big brain imaging data poses extreme challenges for data mining research to detect subtle changes of complex dynamic brain networks, and understand how brain functions. There is an urgent need to develop the efficient data mining and knowledge discovery tools that allow one to make sense of massive brain imaging data, decode dynamic neural activity, and identify neural signatures of brain disorders and mental state robustly.

The BDNABMH 2017 workshop will be co-located with the 2017 International Conference on Brain Informatics, November 16th, 2017 in Beijing, China. We invite researchers and scientists to submit their high-quality and original works in data analytics and computational methods for complex brain modeling and knowledge discovery from a variety of brain data with applications to brain diseases and mental health.

[\[On-line Submission\]](#)

Topics of Interest

We encourage submissions in, but not limited to, the following areas:

- Brain connectivity networks analysis
- Spatiotemporal brain imaging data modeling (fMRI, EEG, MEG, fNIRS, etc.)
- Integrative multi-modality brain imaging data analysis
- Feature analysis and feature selection for brain imaging data
- Structural and functional MRI data analysis
- Neurofeedback, neurostimulation, and brain computer interfaces

- Data analytics and pattern recognition for brain disorders, such as depression, epilepsy, Alzheimer's disease, Parkinson's disease, and autism, etc.

Submissions and Publication

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Similar to the main conference of BI 2017, there are two types of paper submissions that are possible:

TYPE I: Full Paper Submissions. Authors should submit their full papers with a maximum paper length of up to 10 pages in Springer LNCS format using our online submission system. The accepted and presented papers will be published by Springer as a volume of the series of LNCS/LNAI.

TYPE II: Abstract Submissions. Abstracts have a word limit of 500 words. Experimental research is particularly welcome. Accepted abstract submissions will be included in the conference program and will be published as a single, collective proceedings volume. All submissions will be reviewed by at least two reviewers who will give detailed comments. If the submission gets accepted, the authors will submit a revised (“camera-ready”) version that takes into account this feedback.

Workshop Chair

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