

Call for Papers

Special Issue of the Journal of Biomedical Informatics on Intelligent Data Analysis

Guest Editors: John H. Holmes, PhD and Niels Peek, PhD

Submission deadline: September 22, 2006

As biomedical data become increasingly complex, the need for new analytic methods has become increasingly acute. Especially needed are methods that present data analysis results in a form that is easily communicated to domain experts, and methods capable of exploiting background knowledge. Such knowledge may be available at different stages of the data analysis and analytic model building process. These stages require different methodological approaches including, but not limited to, data visualization, data exploration, machine learning, and data mining.

The goal of this special issue of the Journal of Biomedical Informatics is to provide a forum for advanced research on new methods for intelligent data analysis in medicine, biology, and pharmacology. In accordance with the editorial policies of the Journal, we are soliciting full-length article submissions that present and evaluate new methods rather than the application of existing approaches (see editorial guidelines at <http://www.elsevier.com/locate/yjbin>). In addition to original research papers, we are soliciting one or more methodological review papers in the issue and we welcome submissions in this category.

Possible topics for this special issue include, but are not limited to:

- Machine learning or other methods for supervised and unsupervised learning problems
- Exploiting domain knowledge in learning and data analysis
- Data visualization and exploration
- Analysis of large data sets and relational data mining
- Knowledge management and its integration with intelligent data analysis techniques
- Integration of intelligent data analysis techniques within biomedical information systems.
- Qualitative and quantitative methods for temporal data abstraction
- Biomedical time series analysis

Manuscripts should be submitted to the JBI authors' gateway (<http://ees.elsevier.com/jbi/>) no later than September 22nd, 2006. Please be sure that your paper follows the JBI instructions for authors available on that web site. We would welcome advance notice of your intention to submit a paper; simply send an email message to jholmes@cceb.med.upenn.edu. Any questions regarding the special issue may be sent to the same address. Submissions will undergo standard peer review, and opportunities for revision will be provided as appropriate. Papers judged inappropriate for the special issue may be considered for publication in a regular issue of the Journal of Biomedical Informatics.