

## Call for Papers

### The 1st IEEE International Workshop on Service Oriented Technologies for Biological Databases and Tools (SOBDAT 2007)

<http://www.cs.gsu.edu/~hipc/sobdat07/>

In conjunction with ICWS/SCC 2007  
July 13 2007, Salt Lake City, Utah

#### Important Dates:

5-Page Extended Abstract Submission Deadline: **April 02, 2007**

Notification Deadline: **April 22, 2007**

Camera-Ready Paper Due (8 pages): **May 1, 2007**

Workshop day: **July 13, 2007**

Integration of data sources and tools, and performing computations on them is one of the key problems for using the data from experimental biology today. However, these resources are highly diverse in nature in terms of representation, data formats, and computer systems and are distributed across the network. Although this broad spectrum of information is accessible over the Web, each data source comes with its own structure, semantics, data formats, names, concepts, and access methods. Currently, the burden falls on the scientist to manually (via programs) convert between the data formats, resolve conflicts, integrate data, and interpret results in order to make viable use of this information. This workshop will provide a forum to bring together researchers and practitioners working to solve these challenges in biological data and tools using service oriented technologies.

The SOBDAT 2007, in conjunction with ICWS/SCC 2007, invites submission of high quality papers by the submission deadline of **April 02, 2007**. Manuscripts will be required to be formatted using the IEEE Proceedings template (<http://conferences.computer.org/icws/2007/IEEEProceedingsTemplate.doc>). Electronic submission of manuscripts (in PDF or Word format) is required. Papers must be submitted electronically at ICWS 2007 Workshop Management System to (<http://www.servicesscience.org/scw07/>).

All submitted manuscripts will be peer-reviewed by at least 3 program committee members. All accepted papers will be published as a single volume of proceedings encompassing all the workshops (held in conjunction with ICWS-2007) to be published by IEEE Computer Society.

Submissions are specially invited on the following topics, but the scope is not limited to these. We also encourage the submission of survey and case study papers.

#### Topics:

- Challenges, solutions, and methodologies in providing web services interfaces to biological data sources and tools
- Methodologies for data transformation and normalization including transformation of raw data into information and knowledge
- Design, management, and governance for information infrastructures, including information flow, adaptive evolution, and interoperability
- Development of algorithms and data structures for analysis of biological information
- Querying and query optimization against biological sources
- Ontology based data and tool integration
- Semantic Web technologies and formalisms for biological data and applications
- Web Service based biological workflow configuration and deployment systems
- Web interfaces for defining, accessing, and executing workflows
- Dynamic discovery of suitable of biological resources

- Data exchange rules among data sources and tools
- Peer-to-peer based architectures for data and tool integration
- Case studies in application of service oriented techniques to solve data integration issues
- Handheld based monitoring of biological workflows, and the role of pervasive computing

## **Workshop Organization**

### **Program Co-Chairs:**

Phil Bourne, University of California, San Diego, USA (bourne@sdsc.edu)  
 Shamkant B. Navathe, Georgia Tech, Atlanta, USA (sham@cc.gatech.edu)  
 Sushil Prasad, Georgia State University, Atlanta, USA (sprasad@gsu.edu)

### **Program Committee:**

Srinivas Aluru, Iowa State University, USA  
 Christoph Bussler, CISCO Systems, Inc., San Francisco, USA  
 Rajkumar Buyya, The University of Melbourne, Melbourne, Australia  
 Terence Critchlow, Center for Applied Scientific Computing, Lawrence Livermore National  
 Laboratory, Livermore, CA, USA  
 Fikret Ercal, University of Missouri, Rolla, USA  
 Graciela Gonzalez, Arizona State University, Tempe, USA  
 Patrick C. K. Hung, University of Ontario Institute of Technology (UOIT), Ontario, Canada  
 Kamal Karlapalem, IIIT, Hyderabad, India  
 Zoé Lacroix, Arizona State University, Tempe, USA  
 Bertram Ludaescher, University of California, Davis, USA  
 Sanjay Madria, University of Missouri, Rolla, USA  
 José Francisco Aldana Montes, The University of Manchester, UK  
 Nigam Shah, Stanford Medical Informatics, Stanford, USA

### **Proceedings Chair:**

Kamal Karlapalem, International Institute of Information Technology, Hyderabad, India  
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### **Local Arrangements Co-Chairs:**

Janaka Balasooriya, University of Missouri, Rolla, USA  
 Graciela Gonzalez, Arizona State University, Tempe, USA