

## *Preliminary Call for Papers*

### **9th International Conference on Information Technology in Bio- and Medical Informatics -- ITBAM 2018**

**Regensburg, Germany, September 03 -- 06, 2018**

**[www.dexa.org](http://www.dexa.org)**

Data intensive disciplines, such as life sciences and medicine, are promoting vivid research activities in the area of databases. Modern technologies, such as high-throughput mass-spectrometry and sequencing, micro-arrays, high-resolution imaging, etc., produce enormous and continuously increasing amounts of data. Huge public databases provide access to aggregated and consolidated information on genome and protein sequences, biological pathways, diseases, anatomy atlases, and scientific literature. There has never been more potentially available information to study biomedical systems, ranging from single cells to complete organisms. However, it is a non-trivial task to transform the vast amount of biomedical data into actionable information, triggering scientific progress and supporting patient management. Major biomedical application scenarios for research in the database community include, but are not limited to:

- Systems biology
- Genomics, proteomics, and metabolomics
- Genome-wide association studies
- Drug target discovery and personalized medicine
- Neuroscience and neuroinformatics
- Electronic patient records
- Patient monitoring
- Surgery planning and support
- Other relevant applications

Various emerging database technologies for coping with the challenges of these application scenarios have been developed and are an active area of research in information technology:

- Administration of vast amounts of data
- Integration of heterogeneous data sources
- Federated and distributed databases
- Data warehouses
- Data mining techniques such as classification, clustering, association rule mining, etc.
- Decision support systems
- Information and image retrieval
- Signal processing and streaming databases
- Privacy protection and data security
- Data quality assurance
- Process management and collaborative work
- User interfaces and visualization
- Interoperability and standardization
- Other relevant applications

Designing database technology to support applications in life sciences and medicine is an inspiring field of interdisciplinary research. The path from an idea or concept to a practical application is often long and laborious, involving intensive interactions between experts in information technology, life sciences and the medical field. ITBAM accompanies and supports this path by providing an excellent venue for the exchange of ideas, fruitful discussion, and effective interaction among interdisciplinary researchers.

In addition to the regular conference program featuring presentations of full and short research papers published in the proceedings, ITBAM encourages the submission of posters reporting work in progress. All accepted posters will be displayed during the whole event and abstracts will be included in the proceedings.

## **IMPORTANT DATES**

- Submission of full papers: March 18, 2018
- Notification of acceptance: May 18, 2018
- Submission of posters (firm): May 24, 2018
- Camera-ready copies due: June 08, 2018

## **Paper Submission Details:**

Authors are invited to submit electronically original contributions or experience reports in English. The submitted manuscript should closely reflect the final paper as it will appear in the proceedings.

- Paper submissions should not exceed 20 pages in LNCS format (16 for short paper/poster). Poster submissions (for review purposes) are expected to consist of 2 page Abstract (<http://www.springer.de/comp/lncs/authors.html>) and after acceptance should be extended to 16 pages max.
- Any submission that exceeds length limits or deviates from formatting requirements may be rejected without review.
- For paper registration and electronic submission see: <https://confdriver.ifs.tuwien.ac.at/dexa2018>
- Submitted papers will be carefully evaluated based on originality, significance, technical soundness, and clarity of exposition.
- Duplicate submissions are not allowed. Authors are expected to agree to the following terms: "*I understand that the paper being submitted must not overlap substantially with any other paper that I am a co-author of and that is currently submitted elsewhere. Furthermore, previously published papers with any overlap are cited prominently in this submission.*"

## **Accepted Papers:**

All accepted conference papers will be published in "Lecture Notes in Computer Science" (LNCS) by Springer Verlag. Accepted full papers will be of 20 pages length, short papers and poster contributions 16 pages maximum. Authors of accepted papers must sign a Springer copyright release form. For further inquiries, please contact the Conference Organisation Office ([gabriela at dexa.org](mailto:gabriela@dexa.org)).

## **GENERAL CHAIRPERSON:**

- Christian Böhm, University of Munich, Germany

## **PROGRAM COMMITTEE CO-CHAIRPERSONS:**

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- Andreas Holzinger, Medical University Graz, Austria
- Martin Macas, Czech Technical University in Prague, Czech Republic
- Michal Huptych, Czech Technical University in Prague, Czech Republic

## **PROGRAM COMMITTEE:**

Will be announced after review round.