

# 2017 IEEE International Conference on Data Science and Advances Analytics

IEEE / ACM / ASA

## DSAA'2017

19–21, Oct 2017, Tokyo, JAPAN

### Call for Papers

#### HIGHLIGHT of DSAA

A very competitive acceptance rate (about 10%) for regular papers, **Jointly** supported by IEEE, ACM and American Statistical Association, **Strong** inter-disciplinary and cross-domain culture, **Strong** engagement of analytics, statistics and industry/government, **Double** blind, and 10 pages in IEEE 2-column format.

Data-driven scientific discovery is regarded as the fourth science paradigm. Data science is a core driver of the next-generation science, technologies and applications, and is driving new research, innovation, profession, economy and education across different disciplines and domains. There are many associated scientific challenges, ranging from data capture, creation, storage, search, sharing, modeling, analysis, and visualization. The complication here is not just the storage, I/O, query, and performance, but also the integration across heterogeneous, interdependent complex data resources for real-time decision-making, streaming data, collaboration, and ultimately value co-creation. Data science encompasses the areas of data analytics, machine learning, statistics, optimization and managing big data, and has become essential to glean understanding from large data sets and convert data into actionable intelligence. The 2017 IEEE International Conference on Data Science and Advanced Analytics (DSAA'2017), fully sponsored by IEEE and technically sponsored by ACM and American Statistical Association, aims to provide a premier forum that brings together researchers, industry practitioners, as well as potential users of big data, for discussion and exchange of ideas on the latest theoretical developments in Data Science as well as on the best practices for a wide range of applications. The conference solicits experimental and theoretical works on data science and advanced analytics along with their application to real life situations.

#### Topics of Interest

General areas of interest to DSAA'2017 include but are not limited to:

##### Foundations

- Mathematical, probabilistic and statistical models and theories
- Machine learning theories, models and systems
- Knowledge discovery theories, models and systems
- Manifold and metric learning
- Deep learning and deep analysis
- Scalable analysis and learning
- Non-IID learning
- Heterogeneous data/information integration
- Data pre-processing, sampling and reduction
- Dimensionality reduction
- Feature selection, transformation and construction
- Large scale optimization
- High performance computing for data analytics
- Architecture, management and process for data science

##### Data analytics, machine learning and knowledge discovery

- Learning for streaming data
- Learning for structured and relational data
- Latent semantics and insight learning
- Mining multi-source and mixed-source information
- Mixed-type and structure data analytics
- Cross-media data analytics
- Big data visualization, modeling and analytics
- Multimedia/stream/text/visual analytics
- Relation, coupling, link and graph mining
- Personalization analytics and learning
- Web/online/social/network mining and learning
- Structure/group/community/network mining
- Cloud computing and service data analysis

##### Management, Storage, retrieval and search

- Cloud architectures and cloud computing
- Data warehouses and Large-scale databases
- Memory, disk and cloud-based storage and analytics
- Distributed computing and parallel processing
- High performance computing and processing
- Information and knowledge retrieval, and semantic search
- Web/social/databases query and search
- Personalized search and recommendation
- Human-machine interaction and interfaces
- Crowdsourcing and collective intelligence

##### Social issues

- Data science meets social science
- Security, trust and risk in big data
- Data integrity, matching and sharing
- Privacy and protection standards and policies
- Privacy preserving big data access/analytics
- Social impact and social good

##### Applications

- Best practices and lessons learned from both success and failure
- Data-intensive organizations, business and economy
- Quality assessment and interestingness metrics
- Complexity, efficiency and scalability
- Big data representation and visualization
- Business intelligence, data-lakes, big-data technologies
- Data science education and training practices and lessons
- Large scale application case studies and domain-specific applications

#### DSAA2017 Web Site

<http://www.dslab.it.aoyama.ac.jp/dsaa2017/>

#### Key Dates

- Special sessions proposal: **March 31, 2017**
- Paper Submission: **June 8, 2017 (extended)**
- Notification of acceptance: **July 25, 2017**
- Camera-Ready: **Aug. 15, 2017**
- Early Registration: **Aug. 31, 2017**

#### General Chairs:

Hiroshi Motoda, Osaka University, Japan  
Fosca Giannotti, Inf. Sci. & Tech. Inst. of NRC, Italy  
Tomoyuki Higuchi, Inst. Statistical Mathematics, Japan

#### Program Chairs – Research Track

Takashi Washio, Osaka University, Japan  
Joao Gama, University of Porto, Portugal

#### Program Chairs – Application Track

Ying Li, DataSpark Pte. Ltd., Singapore  
Rajesh Parekh, Facebook, USA

#### Special Session Chairs

Huan Liu, Arizona State University, USA  
Albert Bifet, Telecom ParisTech, France  
Richard De Veaux, Williams College, USA

#### Trends & Controversy Chairs

Philip S. Yu, University of Illinois at Chicago, USA  
Pau-Choo (Julia) Chung, National Cheng Kung Univ., Taiwan

#### Award Chair

Bamshad Mobasher, DePaul University, USA

#### NGDS Award Chairs

Kenji Yamanishi, University of Tokyo, Japan  
Xin Wang, University of Calgary, Canada

#### Travel Awards Chair

Zhexue Huang, Shenzhen University, China

#### Tutorial Chairs

Zhi-Hua Zhou, Nanjing University, China  
Vincent Tseng, National Chiao Tung University, Taiwan

#### Panel Chairs

Geoff Webb, Monash University, Australia  
Bart Goethals, University of Antwerp, Belgium

#### Invited Industry Talk Chairs

Yutaka Matsuo, University of Tokyo  
Hang Li, Huawei Technologies, Hong Kong

#### Publicity Chairs

Tu Bao Ho, Japan Adv. Inst. of Sci. & Tech., Japan  
Diane J. Cook, Washington State University, USA  
Marzena Kryszkiewicz, Warsaw Univ. of Tech., Poland

#### Local Organizing Chairs

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Toshihiro Kamishima, Nat. Inst. of Adv. Ind. Sci. & Tech., Japan

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#### Publications

All accepted papers will be published by IEEE and included in the IEEE Xplore Digital Library. The conference proceedings will be submitted for EI indexing through INSPEC by IEEE. Accepted long presentation papers will be invited to Int. J. Data Science and Analytics, Springer.