IEEE/ACM DSAA'2015
19 - 21 Oct 2015, Paris, France

2015 IEEE International Conference on Data Science and Advanced Analytics
http://dsaa2015.lip6.fr/

Data driven scientific discovery is an important emerging paradigm for computing in areas including social, service, Internet of Things, sensor networks, telecommunications, biology, health-care and cloud. Under this paradigm, Data Science is the core that drives new researches in many areas, from environmental to social. There are many associated scientific challenges, ranging from data capture, creation, storage, search, sharing, modeling, analysis, and visualization. Among the complex aspects to be addressed we mention here 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, be it data available to enterprises, Government or on the Web.

Following the first successful edition held in 2014 in Shanghai, the 2015 IEEE International Conference on Data Science and Advanced Analytics (DSAA'2015) 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.

DSAA is also technically sponsored by ACM through SIGKDD. DSAA is the only IEEE/ACM jointly sponsored conference truly in data science and analytics.

DSAA'2015 will consist of two main Tracks: Research and Application. The Research Track is aimed at collecting contributions related to theoretical foundations of Data Science and Data Analytics. The Application Track is aimed at collecting contributions related to applications of Data Science and Data Analytics in real life scenarios. DSAA solicits then both theoretical and practical works on data science and advanced analytics.

Important dates

- Paper submission deadline: 18 May, 2015
- Acceptance notification: 6 July, 2015
- Camera-ready submission deadline: 28 August, 2015

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Topics of Interest

Foundations
- New mathematical, probabilistic and statistical models and theories
- New machine learning theories, models and systems
- New knowledge discovery theories, models and systems
- Manifold and metric learning, deep learning
- Scalable analysis and learning
- Non-iidness learning
- Heterogeneous data/information integration
- Data pre-processing, sampling and reduction
- High dimensional data, feature selection and feature transformation
- 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
- Intent 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

Storage, retrieval and search
- Data warehouses, cloud architectures
- Large-scale databases

- Information and knowledge retrieval
- Web/social/databases query and search
- Personalized search and recommendation
- Human-machine interaction and interfaces
- Crowdsourcing and collective intelligence

Privacy and security
- 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

Applications, practices, tools and evaluation
- Best practices and lessons
- Data-intensive organizations, business and economy
- Domain-specific applications and services
- Business/industry/government analytics
- Online/social/living/environment data analysis
- Behavior analytics/computing
- Economic computing/financial analytics
- Mobile analytics for hand-held devices
- Quality assessment and interestingness metrics
- Complexity, efficiency and scalability
- Anomaly/fraud/exception/change/event/crisis analysis
- Large-scale recommender and search systems
- Big data representation and visualization
- Large scale application case studies

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. Top quality papers accepted and presented at the conference will be selected for extension and publication in the special issues of some international journals, including IEEE Intelligent Systems and WWWJ.