



Porto, 06-09 October 2021

Call for Papers

Website: <https://dsaa2021.dcc.fc.up.pt/>

Submission website: <https://cmt3.research.microsoft.com/DSAA2021>

Important Dates

Research, Application, Special session, and Tutorials: **submission deadline: 23 May 2021**

Research, Application, and Special session tracks **notification: 25 Jul. 2021**

Research, Application, and Special session tracks **camera ready due: 8 Aug. 2021**

PhD Track **submission deadline: 1 July 2021**

PhD Track **notification: 15 July 2021**

Highlights of DSAA'2021

- A strong interdisciplinary research program spanning the areas of data science, including statistics, machine learning, computing, and analytics.
- Strong Journal, Research, and Applications tracks with reproducible and open results.
- Industry track session with lightning results highlighting research advances and industry's best practices.
- Special sessions on the foundations and emerging areas for data science.
- Tutorials on hot topics, and hands-on tutorials
- A special panel on the trends and controversies of data science and analytics.
- A PhD Track for students to receive constructive feedback from senior participants.
- Strong cross-domain interactions among researchers and industry and government policymakers and practitioners.
- Industry and research exhibits.
- Financially sponsored by IEEE CIS, proceedings by IEEE Xplore and EI indexed.
- Technically supported by ACM SIGKDD and ASA.

About DSAA'2021

The 8th IEEE International Conference on Data Science and Advanced Analytics (DSAA'2021) will provide a premier forum that brings together researchers, industry and government practitioners, as well as developers and users in statistics, computing science, and intelligence science for the exchange of the latest theoretical developments in Data Science and Analytics and the best practice for a wide range of applications. The conference invites submission of papers describing innovative research on all aspects of data science and

advanced analytics as well as application-oriented papers that make significant, original, and reproducible contributions to improving the practice of data science and analytics in real-world scenarios.

DSAA'2021 is a multi-track conference consisting of a Journal Track, Research Track, Application Track, and Industry Track. DSAA'2021 will also feature a peer-reviewed Poster session whose purpose is to showcase recent and early-stage research developments on topics that are of interest to students and industry/government practitioners in data science and analytics.

Research Track

The Research Track solicits the latest, original, and significant contributions related to foundations and theoretical developments of Data Science and Advanced Analytics. Topics of interest include but are not limited to:

- Data Science and Advanced Analytics Methods
- Mathematics, Statistics for data science and analytics
- Understanding data characteristics and complexities
- Deep Learning
- Data quality and misinformation
- Bayesian learning, optimization, inference, and regularization
- Infrastructures, and systems
- Evaluation, explanation, visualization, and presentation
- Fairness, accountability, and trustworthy Machine Learning
- Survey and review

The paper submission deadline for the Research Track is May 23, 2021 (no separate abstract deadline) and the acceptance notifications will be sent out by July 25, 2021.

Applications Track

The Application track solicits original, impactful, and actionable application results of Data Science and Advanced Analytics across various disciplines and domains, including business, government, healthcare and medical science, physical sciences, and social sciences. Submissions address a real problem on real-life data that is reproducible ideally through a public git repository, providing inspiring results to policymakers, end-users or practitioners or highlighting new practical challenges for researchers. Topics of interest include but are not limited to:

- Domain-driven data science and analytics practice
- Real-world applications and case studies
- Operationalizable infrastructures, platforms, and tools
- Deployment, management, and decision-making
- System and software demonstrations
- Social and economic impact modelling

- Ethics, social issues, privacy, trust, and bias

Industrial Track

The IEEE DSAA'2021 Industry track aims to highlight the challenges of putting together production-grade software solutions to different business verticals based on data science. Our goal is to promote the debate, the exchange of ideas and/or collaborations on how to add business value to society through data science.

Special Sessions

Data Science and Advanced Analytics for Smart & Connected Communities

http://www.cs.albany.edu/~cchelmis/dsaa_scc/2021/

Organizers

- Charalampos Chelmis, University at Albany, SUNY, USA
- Ajitesh Srivastava, University of Southern California, USA
- Qi Wang, Northeastern University, USA
- Yasin Yilmaz, University of South Florida, USA
- Daphney-Stavroula Zois, University at Albany, SUNY, USA

Data Science Approaches for Modeling, Analyzing and Mining Networks on Networks

<https://lipn.univ-paris13.fr/~kanawati/DSAA21.html>

Organizers:

- Martin Atzmueller, Osnabrück University
- Roberto Interdonato, CIRAD, Montpellier
- Rushed Kanawati, University Sorbonne Paris Nord

Data Science in Health

https://medal.ctb.upm.es/dsaa21_dshealth/index.html

Organizers:

- Ernestina Menasalvas Ruiz, Universidad Politécnica de Madrid, Spain
- Alejandro Rodríguez González, Universidad Politécnica de Madrid, Spain

Practical applications of explainable artificial intelligence methods (PRAXAI)

<https://www.geist.re/praxai:start2021>

Organizers:

- Victor Rodriguez-Fernandez, Universidad Politécnica de Madrid, Spain
- Szymon Bobek, Jagiellonian University, Poland
- David Camacho, Universidad Politécnica de Madrid, Spain
- Grzegorz J. Nalepa, Jagiellonian University, Poland

Tensor Analytics for Emerging Applications

<http://dsaa2021.tensors.eu.org/>

Organizers:

- Evangelos E. Papalexakis, University of California Riverside, USA
- Hadi Fanaee-T, Halmstad University, Sweden

Data-Driven Predictive Maintenance for Industry 4.0

<https://sites.google.com/g.uporto.pt/ddpdm2021/home>

Organizers:

- Bruno Veloso, University of Porto, Porto, Portugal
- Moamar Sayed Mouchaweh, IMT Lille-Douai, Douai, France
- Rita P. Ribeiro, University of Porto, Porto, Portugal
- Sepideh Pashami, RISE, Sweden
- Slawomir Nowaczyk, Halmstad University, Sweden

EnGeoData: Environmental and Geo-spatial Data Analytics

<https://simbig.org/engeodata/>

Organizers:

- - Antonio Lossio-Ventura, National Institutes of Health, USA
- - Mathieu Roche, Cirad, TETIS, France
- - Maguelonne Teisseire, INRAE, TETIS, France

PhD Track

The IEEE DSAA'2021 conference includes a PhD Track, serving as a forum for PhD students on all subjects relating to the intersection of the conference's main topics. The aim is to give PhD students the opportunity to present their ongoing work and interact with senior researchers, experienced in supervising and examining doctoral students and to receive constructive feedback and useful advice from senior participants in a respectful and interactive environment. This forum will also be an enormous opportunity for students to develop their professional network, hoping that it may positively impact their future careers.

Submission

Submissions to the main conference including Research Track & Application Track are available from CMT: <https://cmt3.research.microsoft.com/DSAA2021>.