

**ACM-IMS Foundations of Data Science**  
**FODS-2020**  
**Seattle, WA**  
**October 18-20, 2020**

The Association for Computing Machinery (ACM) and the Institute of Mathematical Statistics (IMS) have come together to launch a conference series on the Foundations of Data Science. Our inaugural event, the ACM-IMS Interdisciplinary Summit on the Foundations of Data Science, took place in San Francisco in 2019. Starting in 2020 we will have an annual conference with refereed conference proceedings. The 2020 event takes place October 18-20, 2020 and the submission deadline is April 13, 2020. This will be an interdisciplinary event bringing together researchers and practitioners to address foundational data science challenges in prediction, inference, fairness, ethics and the future of data science.

**Key Dates:**

- Submission: April 13, 2020
- Notification: July 15, 2020
- Camera-ready: August 1, 2020

All deadlines are at 11:59PM Aloc Time. There will be absolutely no exception to these deadlines.

Topics of interest include, but are not limited to:

- Big challenges: scientific understanding of deep learning, causal reasoning, precious data, multiple heterogeneous data sources, inferring from noisy incomplete data, trustworthy AI, computing systems for data-intensive applications, automating the front-end of the data life cycle, ethics
- Models and algorithms: classification, clustering, dimensionality reduction, matrix and tensor methods, model selection, optimization, relational/structured learning, personalization, probabilistic and statistical methods, regression, semi-supervised and unsupervised learning, signal processing, visualization,
- Properties, logics, and languages: accountability, fairness, interpretability, privacy, robustness, safety, security, stability; formal specification and verification logics and languages for data science
- Types and classes of data: functional, graphs, images, multi-modal, networks, patterns, rules, sequences, spatio-temporal, streams, text, time series, video, web; algorithmic, mathematical and statistical techniques for artisanal data, big data, rare data; complexity classes of data

**Submission Directions**

FODS is a single-track conference. Submissions are limited to a total of **ten (10) pages**, including all content and references, and must be in PDF format and formatted according to the new Standard ACM Conference Proceedings Template. For LaTeX users: unzip acmart.zip, make, and use samplesigconf.tex as a template; Additional information about formatting and style files is available online at: <https://www.acm.org/publications/proceedings-template>. Papers that do not meet the formatting requirements will be rejected without review.

In addition, authors can provide an optional two (2) page supplement at the end of their submitted paper (it needs to be in the same PDF file and start at page 11) focused on reproducibility. This supplement can only be used to include (i) information necessary for reproducing experimental results, insights, or conclusions reported in the paper, and (ii) any pseudo-code, or proofs that due to space limitations, could not be included in the main ten-page manuscript, but that help in reproducibility (see reproducibility policy below for more details).

FODS follows a double-blind review process. Submitted papers must not include author names and affiliations and they must be written in a way so that they do not break the double-blind reviewing process. If the preliminary version of a paper was posted in arXiv, the authors should NOT mention this in the submission. Papers that violate the double-blind review requirements will be rejected without further review.

Website for submissions: <https://easychair.org/conferences/?conf=fods2020>.

## **Important Policies**

### **Reproducibility**

Submitted papers will be assessed based on their novelty, technical quality, potential impact, insightfulness, depth, clarity, and reproducibility. Authors are strongly encouraged to make their code and data publicly available whenever possible. In addition, authors are strongly encouraged to also report, whenever possible, results for their methods on publicly available datasets. Algorithms and resources used in a paper should be described as completely as possible to allow reproducibility. This includes experimental methodology, empirical evaluations, and results. The authors are encouraged to take advantage of the optional two-page supplement to provide the appropriate information. The reproducibility factor will play an important role in the assessment of each submission.

### **Authorship**

Every person named as the author of a paper must have contributed substantially both to the work described in the paper and to the writing of the paper. Every listed author must take responsibility for the entire content of a paper. Persons who do not meet these requirements may be acknowledged, but should not be listed as authors. Post-submission changes to the author list are not allowed.

### **Dual Submissions**

No dual submissions are allowed. Submitted papers must describe work that is substantively different from work that has already been published, or accepted for publication, or submitted in parallel to other conferences or journals. If a submission does partially overlap with a previously published or submitted paper, the author(s) should notify the conference chairs and provide an explanation. Violations on the dual submission policy may lead to immediate rejection and further penalties including prohibition of submitting to conferences and journals sponsored by IMS or/and ACM for a certain period. The employers of the violating authors may be notified.

### **Conflicts of Interest**

During the submission process, enter the email domains of all institutions with which you have an institutional conflict of interest. You have an institutional conflict of interest if you are currently employed or have been employed at this institution in the past three years, or you have extensively

collaborated with this institution within the past three years. Authors are also required to identify all PC/SPC members with whom they have a conflict of interest, e.g., advisor, student, colleague, or coauthor in the last five years. Additional information about ACM's Conflict of Interest policy, which FODS follows, can be found at <https://www.acm.org/publications/policies/conflict-of-interest>.

### **Retraction Policy**

FODS follows ACM's policies, which are described at <https://www.acm.org/publications/policies/retraction-policy>.

### **Attendance**

For each accepted paper, at least one author must attend the conference and present the paper. Authors of all accepted papers must prepare a final version for publication (details will be in the acceptance notification).

### **Copyright**

Accepted papers will be published in the conference proceedings by ACM and also appear in the ACM Digital Library. The rights retained by authors who transfer copyright to ACM can be found [here](#).

**AUTHORS TAKE NOTE:** The official publication date is the date the proceedings are made available in the ACM Digital Library. This date for FODS 2020 is on or after July 15, 2020. The official publication date affects the deadline for any patent filings related to published work.

### **Access**

The ACM OpenTOC service will enable visitors to download the definitive version of the FODS-2020 papers from the ACM Digital Library at no charge in perpetuity starting from the conference start date. Downloads of these articles are captured in official ACM statistics, improving the accuracy of usage and impact measurements.

### **Contact Information**

Email: [fods2020@gmail.com](mailto:fods2020@gmail.com). Jeannette Wing and David Madigan are co-Chairs of FODS-2020