## Conference Call for Papers

The 15th eScience Conference will be held in San Diego, California in the United States of America from September 24 – 27, 2019.

eScience 2019 welcomes the international community of researchers and software engineers from all disciplines to present and discuss their scientific practices involving data science and computing. Researchers from the humanities to physics, engaged in collaborative data- or compute-intensive research, are invited to attend. The objective of the eScience Conference is to promote innovation in collaborative, computationally- or data-intensive research across all disciplines, throughout the research lifecycle.
Science in a digital world presents new opportunities and challenges. One of these challenges is keeping up-to-date with the latest developments in computer science. Furthermore, some scientific disciplines are well advanced in exploiting computational technologies and data science, while others are just scratching the surface. The aim of this conference is cross-fertilization across scientific disciplines, to advance science by fully exploiting the use of technology and cyberinfrastructure. Disciplines include, but are not limited to: life sciences, health research, digital humanities and social sciences, physics, chemistry, astronomy, climate, environmental science, and earth science. Digital technologies include, but are not limited to: machine learning, natural language processing, real time data analysis, interoperability and linked data, multi-scale and multi model simulations, high performance computing, workflow technologies, reproducibility, visualization, open science and image processing.

This year, the conference is divided into special tracks in addition to the Main Track, namely:

- Computing for Physics
- eScience for the Humanities and Social Sciences
- Smart Grid Measurement and Modeling
- Software Tools & Infrastructure

This call for papers is for papers in all tracks of the conference, all in IEEE format. Three types of papers will be accepted:

- Research papers (Full papers 8-10 pages and Short papers 4 pages): focus on new research achievements in eScience, spanning core technologies and applications.
- Experience papers (Full papers 8-10 pages and Short papers 4 pages): focus on practical outcomes through applying eScience tools and techniques to novel problems.
- Posters (2 pages): focus on early stage results for presentation in a poster session, giving presenters a chance to showcase their latest results and innovations.

To be eligible for an oral presentation, you must submit the abstract of your full paper before Monday May 6, and your full paper before Monday May 13, 2019. Rejected full papers will also be considered for a poster presentation. All papers are single-blind peer reviewed and if accepted published in the conference proceedings that will be made available online through the IEEE Digital Library. It is a requirement that at least one author of each accepted paper attends the conference.
On the day prior to the conference there will be workshops and tutorials. Please refer to the call for workshops and call for tutorials separately.

In addition, this year, eScience is co-located with the Gateways conference. The two conferences will offer a shared keynote, presentations about mutually interesting topics, and a shared evening reception, as well as opportunities for mingling during the breaks. Conference attendees will have the option to register for one or both conferences, in full or in part. These two audiences share interests, content, and culture, and we will announce further details of our collaboration in 2019. This is an opportunity to attend both events!

Key Dates

Workshop Submissions Due: Monday April 1, 2019
Workshop Acceptance Notification: Monday April 22, 2019
Paper Abstracts Due: Monday April 29, 2019
Paper and Tutorial Submissions Due: Monday May 6, 2019
Poster Submissions Due: Monday May 13, 2019
Notification of Paper Acceptance: Monday June 24, 2019
Notification of Poster Acceptance: Monday July 8, 2019
All Camera-ready Submissions Due: Monday July 15, 2019
Conference Dates: September 24-27, 2019

Paper Submission Guidelines

Authors are invited to submit conference papers (Full papers 8-10 pages and Short papers 4 pages) for an oral presentation using the IEEE 8.5 × 11 manuscript guidelines: double-column text using single-spaced 10-point font on 8.5 × 11 inch pages. Templates are available from http://www.ieee.org/conferences_events/conferences/publishing/templates.html.

Authors are invited to submit a 2 page paper for a poster presentation using the same template including figures and references.

Contributions should be submitted in PDF format to easychair: https://easychair.org/conferences/?conf=escience2019.
Organization

General Chair
Ilkay Altintas (San Diego Supercomputer Center, University of California San Diego, USA)

Program Chairs
Amarnath Gupta (UC San Diego, USA)
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Rosa Badia (Barcelona Supercomputing Center, Spain)

Poster Chairs
Shava Smallen (San Diego Supercomputer Center, UC San Diego, USA)
Jianwu Wang (University of Maryland, Baltimore County, USA)

Local Chairs
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eScience Steering Committee
See eScience Steering Committee page

Track Chairs

Smart Grid Measurement and Modeling
Raymond de Callafon (University of California San Diego, USA)

Software Tools & Infrastructure
Zhiming Zhao (University of Amsterdam, The Netherlands)
Rafael Ferreira da Silva (University of Southern California, USA)

eScience for the Humanities and Social Sciences
Molly Roberts (University of California San Diego, USA)

Computing for Physics
Frank Wuerthwein (University of California San Diego, USA)