

32nd IEEE International Symposium on Computer Arithmetic (ARITH 2025)

<https://www.arith2025.org/>

May 4-7, 2025, El Paso, TX, USA

ARITH 2025 welcomes submissions of conference papers describing recent scientific advances related to computer arithmetic.

Papers under review elsewhere are not acceptable for submission to ARITH 2025. By submitting a paper, authors implicitly confirm that they are solely submitting it to ARITH 2025. Submissions must be in English and made through the EasyChair website: <https://easychair.org/conferences/?conf=arith2025>

Submissions should be at most 8 pages for full papers, or 4 pages for short and industry papers in the IEEE CS Conference format (including references). Accepted papers will be presented at the conference and included in the conference proceedings and in the IEEE Xplore Digital Library. Detailed submission procedure is available at <https://www.arith2025.org/call.html>

Important dates

- Abstracts due on 2024-11-29
- Papers due on 2024-12-06
- Notification on 2025-02-14

Topics of interest include, but are not restricted to:

Arithmetic foundations, systems and formats

- Theory of computer arithmetic such as integer, fixed/floating-point, interval, finite-field, etc.
- Novel arithmetic systems and application-specific number formats.

Implementation of arithmetic

- Novel architecture of arithmetic units on various technologies including traditional, FPGA, optical and quantum.
- High-performance, low-power and fault-tolerant designs and implementations
- Design tools and methodologies, including testing and formal verification

Algorithms and numerics

- Computer approximations of elementary and special functions
- Arithmetic algorithms and their analysis
- Design, compilation, optimization, validation, and verification of numerical software

Application-specific arithmetic

- Cryptography or security
- Artificial intelligence, machine learning and deep learning
- Signal processing, multimedia, and computer graphics

All topics that relate to intensive use of computer arithmetic are welcome as well.

Students of all levels: ARITH is the premier conference for computer arithmetic. We urge you to submit a paper and/or attend the conference if you are interested in this subject. *See you at the conference!*