

Virtual Conference, June 14-16, 2021

## CALL FOR PAPERS

## Key Dates:

➤ **Journal Papers****Paper submission deadline****November 1, 2020****Reviews completed****February 1, 2021****Submission of Minor revisions****February 22, 2021****Notification of Final acceptance****March 8, 2021****Final manuscripts due****March 31, 2021**➤ **Conference Papers****Abstract submission deadline****February 1, 2021****Paper submission deadline****February 8, 2021****Reviews completed****April, 2021****Camera ready and Copyright due****May, 2021**

## Highlights:

➤ **Virtual conference: live presentations, keynotes and panels**➤ **Two submission categories:**❖ **Journal Papers:**  
**Special Section on Emerging and Impacting Trends on Computer Arithmetic of IEEE Transactions on Emerging Topics in Computing**❖ **Conference Papers:**  
Full papers and short/industry papers

## Organizing Committee:

**General Chair:**

Alberto Nannarelli, DTU, Denmark

**Program Co-Chairs:**Mioara Joldes, LAAS-CNRS, France  
Fabrizio Lamberti, POLITO, Italy**Financial Chair:**

Flemming Stassen, DTU, Denmark

**Publicity Chair:**

Daniele Jahier Pagliari, POLITO, Italy

**Web Chair:**

Alberto Cannavò, POLITO, Italy

Since 1969, the ARITH symposia have served as the flagship conference for presenting scientific work on the latest research in computer arithmetic. Computer arithmetic is now driving the most important innovations and product directions in our industry, such as artificial intelligence and security.

The 28th edition of the symposium, ARITH 2021, which was originally scheduled in Turin, Italy, will be a **virtual conference with live presentations, keynote talks, and panels**. Moreover, perspective authors will have an option to publish a paper in the *IEEE Transactions on Emerging Topics in Computing* and present the work at the conference.

## Areas of Interest:

Papers are invited which address new and previously unpublished results in all areas related to Computer Arithmetic, *including but not limited to*:

- ✓ **Foundations of computer arithmetic:** innovative number systems and their applications, emerging arithmetic algorithms and their analysis and applications, elementary function algorithms for emerging architectures and applications.
- ✓ **Efficient, low-power and novel implementations of computer arithmetic:** processors and units, elementary and special functions, multiple-precision, interval arithmetic.
- ✓ **Floating-point units and algorithms:** properties of floating-point arithmetic in emerging domains and applications.
- ✓ **Standards, high-level language and compiler impact** on computer arithmetic.
- ✓ **Test, verification, formal proof, CAD, automation, fault/error-tolerance** for computer arithmetic.
- ✓ **New arithmetic paradigms and architectures for FPGAs or configurable logic.**
- ✓ **New arithmetic paradigms and architectures for specific application domains:** cryptography, security, neural networks, deep learning, signal processing, computer graphics, multimedia, computer vision, distributed and parallel computing, finance.
- ✓ **Computer arithmetic for emerging technologies:** new arithmetic paradigms (algorithms, architectures, implementations).
- ✓ **Inexact and stochastic arithmetic algorithms, architectures and applications.**

## Submission of Journal and Conference Papers:

➤ **Journal Papers:**

- Accepted articles:
  - **Published in the Special Section on Emerging and Impacting Trends on Computer Arithmetic of IEEE TETC**
  - **Oral presentation at ARITH 2021**

➤ **Conference Papers:**

- Full papers: limited to 8 IEEE conference formatted pages
- Short/Industry papers: limited to 4 IEEE conference formatted pages
- Accepted articles:
  - **Published in the IEEE Xplore Digital Library**
  - **Oral presentation at ARITH 2021**

**NOTE: Authors should carefully consider which category is appropriate for their submission. There will be no programmatic path from Journal Papers to Conference Papers submission, review and publication processes. Any resubmission of a Journal Papers submission as a Conference Paper is a decision that will have to be made by the authors.**

**Detailed submission instructions are available at <http://arith2021.arithsymposium.org>**