



DRESDEN, GERMANY

## CALL FOR PAPERS

NANOARCH is the annual cross-disciplinary symposium for the discussion of novel post-CMOS and advanced nanoscale CMOS directions. The symposium seeks papers on innovative ideas for solutions to the principal challenge faced by integrated electronics in the 21st century: *“How to design, fabricate, and integrate nanosystems to overcome the fundamental CMOS limitations?”* The symposium will feature technical sessions, invited speakers, a best paper award, and a great environment for interaction among the participants.

This 18th NANOARCH aims to incorporate several exciting sessions on emerging computing paradigms, novel nano-based computing architectures, 2D material (e.g., graphene) nanoelectronics and computing, beyond charge-based computing, emerging memory devices and in-memory computing, nanoelectronics for biomedical systems. In addition to 6-page length Regular Papers, we also invite 2-page Concept Papers presenting less developed but radical and highly innovative work in the area of nanofabrication, nanocomputing, and emerging nanosystem applications.



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Accepted papers must be presented at NANOARCH 2023 to be published on the ACM DL after the symposium.

## TOPICS OF INTEREST

NANOARCH 2023 topics of interest (both theoretical and experimental) include, but are not limited to:

- Novel nanodevices and manufacturing/integration ideas with a focus on nanoarchitectures.
- Nanoelectronic circuits, nanofabrics, computing paradigms, and nanoarchitectures.
- Future and emergent nano-computing paradigms, e.g., approximate, stochastic, quantum, neuromorphic, spintronic, molecular.
- Paradigms and nanoarchitectures for computing with unpredictable devices.
- Emerging memory nano-devices and in-memory computing nanoarchitectures.
- Security architectures with nanofabrics.
- Reliability-aware computing.
- 2D/3D, hybrid, defect/fault tolerant architecture, integration, and manufacturing.
- Nanodevice and nanocircuit models, methodologies, and computer aided design tools.
- Fundamental limits of computing at the nanoscale.

## IMPORTANT DATES

**Regular paper submission:**  
Sept 19, 2023 (Hard Deadline)

**Notification of acceptance:**  
Oct 13, 2023

**Final version due:**  
Oct 29, 2023

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