



ARCS26

39TH GI/ITG INTERNATIONAL CONFERENCE
ON ARCHITECTURE OF COMPUTING SYSTEMS

24–26 March 2026, Mainz (Germany)

2026 Special Focus

Open-Source Architectures: From RISC-V to AI Accelerators

The ARCS conferences series has over 30 years of tradition on reporting leading-edge research in computer architecture and operating systems. New chips are designed either as general-purpose devices with a wide user portfolio in mind, or target the needs of specific applications (e.g. machine learning pipelines for deep learning workloads, mobile or embedded systems). Accordingly, they might rely on well-established architectural approaches (CPU-like, vector extensions), or bring completely new disruptive ideas limiting energy consumption. In this landscape, ARCS stands out in hosting and presenting such concepts and ideas for versatile architectures. Nowadays, such architectures often include open-source solutions such as RISC-V or AI accelerators, which are drawing more and more attention in academia and industry. ARCS'26 aims to leverage this growing interest in such architectures to foster their development, performance, and dissemination. We welcome all contributions on hardware architectures, as well as their programming models, software stacks (operating systems, compilers...), their insertion into computing systems, and the challenges to port optimized code.

In addition to the main conference, ARCS will host:

- A special track on Organic Computing.
- A special track on Dependability and Fault Tolerance.
- A PhD forum to present the work of young doctoral students.
- A Group forum for young professors, researchers, and consortia to present their research.

The proceedings of ARCS 2026 will be published in the Springer Lecture Notes on Computer Science (LNCS) series. A best paper will be elected by the Program Committee, and the Participants' Favourite Presentation Award will be chosen by the audience. Submission guidelines are available at: <https://arcs-conference.org/submission-guidelines>.

Topics of interest:

Hardware Architectures

- Reconfigurable architectures
- System-on-chip
- Parallel and distributed systems
- High-performance systems
- Heterogeneous many-core architectures
- Domain-specific accelerator architectures
- Real-time and mixed-criticality systems
- I/O and non-volatile memory
- Energy-efficient architectures
- Smart network technologies
- RISC-V and open-source architectures
- AI accelerators
- Dependable and fault-tolerant architectures

Programming Models and Runtime Environments

- Programming models for heterogeneous computing
- Tools for power monitoring and performance analysis
- Operating systems, algorithms, and data structures for heterogeneous architectures
- Hypervisors and middleware for homogeneous and heterogeneous multi-/many-core computing platforms
- System management including but not limited to scheduling, memory management, power/thermal management, and RTOS
- Domain-specific languages and programming models
- Architecture-specific code generation and optimization
- Architectural simulation and emulation

Cross-sectional Topics

- Near- and in-memory computing
- Memory and network compression
- Organic Computing
- Pervasive systems
- Autonomous systems
- Approximate Computing
- Support for safety and security
- Hardware in the loop
- Optimization and performance analysis

Important Dates

Abstract submission deadline:	January 11, 2026	February 1, 2026
Paper submission deadline:	January 18, 2026	February 8, 2026
Notification of acceptance:	February 12, 2026	March 5, 2026
Camera-ready papers:	March 3, 2026	March 16, 2026
Conference (in Mainz, Germany):	March 24–26, 2026	

Organizers

General Co-Chairs:

André Brinkmann, Johannes Gutenberg University Mainz, Germany
Mario Porrmann, Osnabrück University, Germany

Program Committee Co-Chairs

Filippo Mantovani, Barcelona Supercomputing Center, Spain
Christian Herglotz, BTU Cottbus, Germany

Proceedings Chair:

Thilo Pionteck, Magdeburg University, Germany.

Publicity and Web Chairs:

Mathias Pacher, DHBW Karlsruhe, Germany
Lars Bauer, Ubiteum GmbH, Germany

<https://arcs-conference.org>