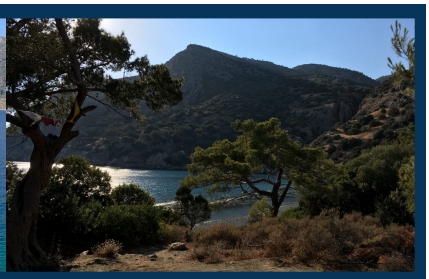
International Conference on Embedded Computer Systems:
Architectures, Modeling and Simulation

SAMOS XXIV

Pythagorion, Samos Island, Greece

29 June – 4 July 2024



www.samos-conference.com

SUBMISSION DEADLINE: 18 MARCH 2024

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Published by Springer

Lecture Notes in Computer Science (LNCS).

Important Dates:

18 March 2024
Submission Deadline
17 May 2024
Notification of Acceptance
09 June 2024
Camera Ready Submission Deadline
29 June – 4 July 2024
SAMOS XXIV, Greece

CALL FOR PAPERS

SAMOS is a unique conference. It deals with embedded systems (sort of) but that is not what makes it different. It brings together every year researchers from both academia and industry on the quiet and inspiring northern mountainside of the Mediterranean island of Samos, which in itself is different. But more importantly, it really fosters collaboration rather than competition. Formal and intensive technical sessions are only held in the mornings. A lively panel or distinguished keynote speaker ends the formal part of the day and leads nicely into the afternoons and evenings – reserved for informal discussions, good food, and the inviting Aegean Sea. The conference papers will be published by Springer's Lecture Notes in Computer Science – LNCS and will be included in the DBLP Database. Authors are invited to submit technical papers in accordance with the author's instructions describing original work.

The SAMOS conference seeks paper contributions in two main areas:

Applications, Systems, Architectures, and Processors:

This topic area focuses on advances in systems efficiency in various domains. We seek original contributions describing new architectural and micro architectural techniques aiming to improve performance (e.g. processing throughput or real-time latency), energy and power efficiency, reliability and dependability of embedded systems. We solicit novel architectures and computing methodologies and solutions for accelerating applications in various embedded domains such as next generation life sciences and medicine, next generation automotive and avionics, next generation (machine) learning systems for surveillance and recognition, immersive virtual reality. Topics of interest include (but are not limited to):

- Novel Architectures for Accelerators in High Performance Embedded Systems;
- Application-specific and Domain-specific Embedded Heterogeneous Multicore Systems;
- Embedded Reconfigurable Processors;
- Software tools, Compilation techniques and optimizations, and Code generation for Reconfigurable Architectures;
- Architecture synthesis from Functional Languages Descriptions;
- Virtualization and Energy-aware Secure, Reliable, and High Availability Multi-core Architectures;
- Embedded Parallel Systems and Multiprocessor Systems-On-Chip;
- Application-level Resource Management of Multi-core Architectures;
- Memory Systems and Management for big data;
- In-/near-memory processing;
- Network-on-Chip, Software Defined Network-on-Chips.

Modeling, Design, and Design Space Exploration:

This topic area focuses on all design processes for embedded systems ranging from system-level specification, design languages, modeling and simulation, performance, power, reliability and thermal estimation and analysis, hardware/software and system synthesis, design and design space exploration methodologies down to hardware and software synthesis and compilation strategies. Topics of interest include (but are not limited to):

- Hardware/Software and Algorithm/Architecture Co-design;
- Design Space Exploration Strategies, Algorithms and CAD Tools;
- Specification Languages and Models;
- System-Level Design, Simulation, and Verification;
- Hardware, Software and System Synthesis Techniques and CAD Tools;
- MP-SoC and Platform Based Design Methodologies;
- MP-SoC Programming, Compilers, Simulation and Mapping Technologies;
- Profiling, Measurement and Analysis Techniques and CAD Tools;
- (Design for) System Adaptivity;
- Testing and Debugging.

The organizing committee is closely monitoring the situation with the ongoing COVID-19 pandemic. Health and safety are a primary concern to us and no unnecessary risks will be imposed on authors.

- **SUMMER SCHOOL & SPECIAL SESSIONS.** SAMOS XXIV plans a 2-Day Summer School as well as various Special Sessions.
- **JOURNAL SPECIAL ISSUE**. Authors of selected papers will be invited to submit an extended version of their work to contribute to a special issue of the Journal of Parallel Programming (IJPP). This issue will accept papers from all the topics of the SAMOS conference.
- **TRAVEL GRANTS.** The conference will award 10 travel grants to authors and participants, who are students from Greece, Cyprus, Italy, Portugal, and Spain and, in general, to students without support from their organization.

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