



- eSAAM 2023 -

**3rd Eclipse Security, Artificial Intelligence, Architecture, and Modelling Conference
on Cloud to Edge Continuum**
October 17, 2023, Ludwigsburg, Germany

CALL FOR PAPERS

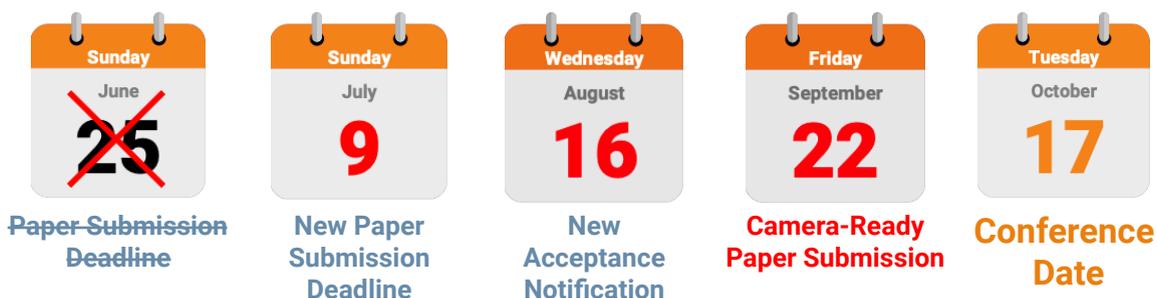
Mark your calendars for **Eclipse SAAM on Cloud-to-Edge Continuum 2023** on **October 17, 2023**. The conference will bring together industry experts and researchers working on innovative software and systems solutions for the next generation of edge-cloud computing continuum, specifically focusing on Security and Privacy, Artificial Intelligence and Machine Learning, Systems and Software Architecture, Modelling and related challenges. The event is co-located with **EclipseCon 2023**. This will be a great opportunity to meet our dynamic open source community.

BACKGROUND

The rapid growth of global data volume creates an increasing demand for autonomous, intelligent, secure, sustainable, energy-efficient and interoperable cloud infrastructures and services for new businesses. These businesses require drastic innovations that cross several research and innovation domains. Current scenarios are characterized by efficient development of edge/cloud applications and services through autonomous, AI-based management and control of the underlying infrastructure. This is done to tackle the constantly increasing demand for the optimization of runtime resources in the edge-to-cloud continuum against critical runtime objectives, such as performance, throughput, security, and energy, while preserving the scalability of existing IoT-edge applications and services, as well as security and reliability of data and software.

A multitude of novel technologies – such as edge computing, artificial intelligence, big data analytics, and security, privacy, and trust schemes – are being investigated in order to be adopted in the current ecosystem-wide arrangements, standards, and tool chains. Researchers and Professionals working in these research areas are invited to present their work to the community – industry, standardisation and open-source bodies – on **October 17th** at the **Eclipse SAAM on Cloud-to-Edge** conference.

IMPORTANT DATES



TECHNICAL TOPICS

We encourage submissions that report on constructive, design-oriented research on innovative artefacts, such as software, models, and methods related to the conference theme. The conference is focused on, but not limited to the following topics of interest.

Cloud Computing Security and Privacy	Cloud Computing Architecture	Artificial Intelligence, and Machine Learning in Cloud Computing	Modelling for Cloud Systems and Services
<ul style="list-style-type: none"> ● Security practices, and architectures ● Cloud-centric threat models ● Cloud cryptography ● Cloud access control and key management ● Integrity and verifiable computation ● Secure cloud resource virtualization mechanisms ● Failure and vulnerability detection and prediction ● Energy/cost/efficiency of security in clouds ● Availability, recovery and auditing ● Network security mechanisms (e.g., IDS etc.) for the cloud ● Security and privacy of federated clouds and edge/fog computing ● ... 	<ul style="list-style-type: none"> ● Cloud-oriented architecture: frameworks and methodologies ● Cloud and edge computing architectures for smart applications ● Enterprise cloud computing ecosystem: technology, architecture and applications ● SaaS, PaaS and IaaS cloud computing service models ● Serverless cloud computing architecture and FaaS model ● Containerization and cloud deployment mode ● The Cloud-to-Thing continuum: opportunities and challenges ● Green cloud computing architecture and Energy-related advances ● ... 	<ul style="list-style-type: none"> ● Intelligent distributed architectures and infrastructures ● Context-awareness and location-awareness ● AI, deep learning for predictive security ● AI for application layer optimisation ● Federated learning and distributed training in the cloud-edge continuum ● AI-powered resource allocation and energy optimization in the cloud ● Deploying AI models in the cloud: tools, techniques, approaches and solution. ● Large language models in the cloud ● Real-time processing and acceleration with AI ● ... 	<ul style="list-style-type: none"> ● Modelling languages and tools ● Verification & validation approaches ● Security & privacy modelling ● Statistical model checking ● Modelling adaptive IoT systems ● Digital Twins for networked services ● Cloud cost models ● Power-aware profiling, modelling, and optimization ● Consistency, fault tolerance, and reliability models ● Cloud traffic characterization and measurements ● On-demand cloud computing models ● Service-level agreements, business models, and pricing policies for cloud computing ● ...

SUBMISSION GUIDELINES

You are invited to submit papers, outlining recent research or development activities (including work carried out in the context of funded research programs) in the broad field of edge and cloud computing. The topics should aim at fostering discussions with participants from the research community, industry and standardization bodies and at exchanging ideas for future joint research activities. We welcome all submissions and do not require projects to be associated with the Eclipse Foundation or its projects.

The final date for submissions is ~~June 25, 2023~~ **July 9, 2023**.

We encourage submissions of two types of papers: short papers (maximum of 4 pages) and full research papers (maximum of 10 pages) in accordance with the format recommendations and under the CC BY 4.0 licence. Submitted papers should be written in English by following the [ACM proceedings Template](#).

All submissions will be single blind reviewed by members of the Technical Program Committee on the basis of technical quality, relevance to scope of the conference, originality, significance, and clarity.

Manuscripts must be submitted electronically through the [online submission system](#). For any questions, please contact research@eclipse.org.



ACM will publish our conference proceedings, making our papers available in the prestigious ACM Digital Library and providing us with the opportunity to share our research with a wider audience.

Posters and Demos

Additionally, in parallel with the Eclipse SAAM sessions, a space for demonstrations and posters will be hosted. Live demonstrations, both for research projects and innovative products, will provide a 2-page abstract and a poster.

The participants exclusively in the poster session will provide a poster with the indicated format and an explanatory abstract of its content. The abstract should clearly state: (a) the problem being addressed, (b) what makes this problem of interest, important, and difficult, (c) the proposed approach to the problem, and (d) the key innovative contribution.

Eclipse SAAM's poster is A0 paper size (841 × 1189mm), to which you can affix visually appealing material that describes your research. Authors should prepare the best material (visually appealing and succinct) that effectively communicates their research problem, techniques, results, and what is novel/important about the work.

The authors of accepted posters/demos will also be expected to submit a digital copy of a poster, which will be available online and shared with the audience during the poster presentation. Details for the presentation and recommended poster formats will be provided after notification.

TECHNICAL PROGRAM COMMITTEE

eSAAM 2023 welcomes nominations from the community, especially young faculty members and industry professionals with R&D experience.

- Apostolos Ampatzoglou, U. of Macedonia
- Vasilios Andrikopoulos, U. of Groningen
- Luca Anselma, University of Turin
- Nuno Antunes, U. of Coimbra
- Alessandra Bagnato, SOFTEAM
- Rami Bahsoon, U. of Birmingham
- Peter Bednar, TUKE
- Samira Briongos, NEC Laboratories Europe
- Benoit Combemale, University of Rennes
- Davide Conzon, LINKS Foundation
- Gil Gonçalves, FEUP
- Fulya Horozal, ATB
- Teodoro Montanaro, Università del Salento
- Tero Päivärinta, Luleå U. of Technology
- Fabio Palomba, University of Salerno
- Panagiotis Papadimitriou, U. of Macedonia
- Ella Peltonen, University of Oulu
- Eliseu Pereira, FEUP
- Sebastian Scholze, ATB
- Miltiadis Siavvas, CERTH
- Dimitris Syrivelis, NVIDIA, Israel
- Dimitrios Tsoukalas, CERTH

CONFERENCE CO-CHAIRS

- **Alexander Chatzigeorgiou**, University of Macedonia
- **David Jimenez**, Universidad Politécnica de Madrid
- **Philippe Krief**, Eclipse Foundation



[University of Macedonia](https://www.uoi.gr/)



[Universidad Politécnica de Madrid](https://www.upm.es/)

PROGRAM COMMITTEE CHAIRS

- **Alexander Chatzigeorgiou**, University of Macedonia
- **David Jimenez**, Universidad Politécnica de Madrid
- Rosaria Rossini, Eclipse Foundation

CONTACT US

If you have questions about the conference or the CFP, please contact research@eclipse.org.
Conference Website: <https://events.eclipse.org/2023/esaam2023>