CALL FOR PAPERS

Mark your calendars for **Eclipse SAAM *on Data spaces 2024*** on **October 22, 2024**. The conference will bring together industry experts and researchers working on innovative software and systems solutions for **data spaces**, 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 **Open Community Experience 2024** (formerly EclipseCon). This will be a great opportunity to meet our dynamic open source community.

BACKGROUND

The importance of data as a valuable asset for companies, organisations, and public administrations has continuously increased over the past decade. According to the EU, it is reshaping how we produce, consume, and live. From real-time navigation to improved personalised medicine, precision farming, or the reduction of CO2 emissions, data serves as a fundamental ingredient for innovative products and services. Data sharing in real-world ecosystems has introduced new value opportunities for the entities that exchange data. Such ecosystems enable business entities to optimise their processes and products, to create new products and to set up new business models and opportunities. However, areas such as data exchange and monetization are still in their early stages of development.

In recent years, the concept of Data Spaces is continuously gaining interest on a global level and a series of developments and challenges regarding them have been highlighted. Data Spaces are anticipated to advance the state of the art in data exchange and monetization by providing a secure and trusted environment where organisations can share and access data. Data Spaces will foster collaboration and enhance the discoverability, accessibility, and reusability of data while ensuring interoperability. However, this endeavour presents various challenges, including privacy preservation, interoperability, trustworthiness, data value, governance and legal compliance, among others. In particular challenges are related both to data interoperability and ICT infrastructure interoperability. Moreover, alongside governance, concepts of data sovereignty and trust, have been key challenges related to data sharing.

A plethora of emerging architectures, concepts, technologies, methodologies, associations and initiatives are currently under investigation and development to establish these ecosystems based on common principles and standards. These include the development of data connectors, privacy preservation techniques, vocabularies, metadata catalogues and data sovereignty frameworks. Researchers and professionals engaged in these fields are encouraged to present their work to the community, comprising industry stakeholders, standardisation bodies, and open-source initiatives, at the **Eclipse SAAM on Data Spaces** conference scheduled for **October 22, 2024**.

IMPORTANT DATES

New Submission deadline

Acceptance Notification

Camera-Ready

Conference Date

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.

Data Space Security and Privacy	Data Space Architecture	AI, and Machine Learning in Data Space	Modelling for Data Space Systems
• Data Encryption Techniques • Access Control and Authorization • Data Anonymization and Pseudonymization • Secure Data Transmission • Data Masking and Obfuscation • Data Governance and Compliance • Privacy-Preserving Data techniques • Data Privacy Impact Assessments (DPIA) • Data Lifecycle Management • Data Auditing and Monitoring • Collaborative Data Space Security • Sovereign Data Connectors and Applications	• Data Space Architecture Fundamentals • Data Modeling and Design • Data Integration Architectures • Real-time Data Processing • Metadata Management and Data Spaces Brokers • Big Data Architectures • Data Security Architectures • Data Sharing Architecture for AI and Machine Learning • Cloud-edge Architecture for Data Spaces • Connected and Federated Data Spaces Architectures • Evaluation Framework for Data Spaces and Best Practices	• Federated Learning, Split Learning & Transfer Learning for Connected Data Ecosystems • Explainable AI (XAI) • AI and Privacy, Ethics & Bias • Machine Learning Ops (MLOps) • AI for Data Governance • Edge AI and Data Spaces • AI Applications for Data Sharing Ecosystems	• Conceptual Modelling • Data Governance Models • Vocabularies and Ontologies for Data Sharing Ecosystems • Data and Infrastructure Interoperability • Best Practices for Interoperable Data Exchange • Data Quality • Data Compliance

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 area of data spaces. The topics should aim at fostering discussions with participants from the research community, industry and standardisation 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 ~~**May 12**~~ **May 26, 2024**.

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.

ICPS Published by ACM

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.

TECHNICAL PROGRAM COMMITTEE

eSAAM 2024 welcomes nominations from the community, especially young faculty members and industry professionals with R&D experience.

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- **Rosaria Rossini** from Eclipse Foundation

CONTACT US

If you have questions about the conference or the CFP, please contact research@eclipse.org. Conference Website: https://eclipse.org/events/2024/oc4research