-- CALL FOR PAPERS --

COORDINATION 2024
26th International Conference on Coordination Models and Languages

Dates: June 18-20, 2024

Location: University of Groningen, The Netherlands

Website: https://www.discotec.org/2024/coordination

Abstract submission deadline: February XX, 2024

Submission Link: https://easychair.org/…

Scope

Modern information systems rely increasingly on combining concurrent, distributed, mobile, adaptive, reconfigurable and heterogeneous components. New models, architectures, languages and verification techniques are necessary to cope with the complexity induced by the demands of today's software development. Coordination languages have emerged as a successful approach, in that they provide abstractions that cleanly separate behaviour from communication, therefore increasing modularity, simplifying reasoning, and ultimately enhancing software development. Building on the success of the previous editions, this conference provides a well-established forum for the growing community of researchers interested in models, languages, architectures, and implementation techniques for coordination.

Main Topics
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  * Theoretical models and foundations for coordination:
      component composition, concurrency, mobility, dynamic, spatial and
      probabilistic aspects of coordination, logic, types, semantics.
  * Specification, refinement, and analysis of architectures:
      patterns and styles, verification of functional and non-functional
      properties, including performance and security aspects.
  * Dynamic software architectures:
      distributed mobile code, configuration, reconfiguration, networked
      computing, parallel, high-performance and cloud computing.
  * Nature- and bio-inspired approaches to coordination.
  * Coordination of multi-agent and collective systems:
      models, languages, infrastructures, self-adaptation, self-organisation,
      distributed solving, collective intelligence and emerging behaviour.
  * Coordination and modern distributed computing:

web services, microservices, peer-to-peer networks, grid computing,
context-awareness, ubiquitous computing, mobile computing,
reversible computing.
* Coordination platforms for infrastructures of emergent new application
domains, like IoT, fog- and edge-computing.
* Cybersecurity aspects of coordinated systems, coordinated approaches
to cybersecurity.
* Programming methodologies, languages, middleware, tools, and environments
for the development and verification of coordinated applications, including
DevOps approaches.
* Languages, methodologies and tools for secure coordination.
* Session-based programming: models, languages, behavioural types, and tools.
* Industrial relevance of coordination and software architectures:
programming in the large, domain-specific software architectures and
coordination models, industry-driven efforts in coordination and case studies.
* Interdisciplinary aspects of coordination.
* Coordination in business process management:
coordination models for business process management, process mining
techniques and tools for coordination models.
* Models, languages, verification techniques and tools for interacting smart
contracts and (blockchain-based) decentralised applications.

Invited Speaker

Marieke Huisman, University of Twente, The Netherlands

We invite you to submit:
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* Regular long papers (7-15 pages, not counting references):
describing thorough and complete research results and experience reports.
* Regular short papers (4-6 pages, not counting references):
describing research in progress or opinion papers on the past of COORDINATION
research, on the current state of the art, or on prospects for the years to come.
* Tool papers (4-15 pages, not counting references):
describing technological artefacts in the scope of the research topics of
COORDINATION. Tool papers should provide a clear account of the tool's
functionality, discuss the tool's practical capabilities (possibly with reference to
the type and size of problems it can handle), and (when applicable) report on
realistic case studies (possibly providing a rigorous experimental evaluation).
Tool papers may also provide an account of the theoretical foundations (including
relevant citations) and present design and implementation concerns (possibly
including software architecture and core data structures). Papers that present
extensions to existing tools should clearly describe the improvements or extensions
with respect to previously published versions of the tool (possibly providing data on
enhancements in terms of resources and capabilities). Papers must contain a link
to a publicly downloadable MPEG-4 demo video of at most 10 minutes length.

* Survey papers (16-25 pages, not counting references):
  describing important results and success stories related to the topics of
  COORDINATION.

Important dates
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* Abstract submission: February XX, 2024

* Paper submission: February YY, 2024

* Artefact submission (for tool papers): February YY, 2024

* Paper notification: March WW, 2024

* Camera-ready: April HH, 2023

* Artefact submission (for regular and survey papers): April JJ, 2024

* Artefact notification: April ZZ, 2024

Dates are Anywhere on Earth (AoE).

Proceedings

The conference proceedings, formed by accepted submissions from any category, will
be published by Springer in LNCS-IFIP volumes.

Special issues

After the conference, accepted papers (except for tool papers) selected from
COORDINATION and FORTE programmes will be invited to a special issue of the
Logical Methods in Computer Science journal. Selected accepted tool papers, instead,
will be invited to a special issue of a reputable journal with a track dedicated to software,
like the Journal of Science of Computer Programming's Software Track.

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