========== **Call for Papers** ==========

WRLA 2018, the 12th **International Workshop on Rewriting Logic and its Applications**

An ETAPS 2018 satellite event - Thessaloniki, Greece, April 14-15 2018

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IMPORTANT DATES

Submission deadline: January 5th 2018
Author notification: February 16th 2018
Workshop: April 14 -15, 2018.

AIMS AND SCOPE

Rewriting is a natural model of computation and an expressive semantic framework for concurrency, parallelism, communication, and interaction. It can be used for specifying a wide range of systems and languages in various application domains. It also has good properties as a metalogical framework for representing logics. Several successful languages based on rewriting (ASF+SDF, CafeOBJ, ELAN,Maude) have been designed and implemented. The aim of WRLA is to bring together researchers with a common interest in rewriting and its applications, and to give them the opportunity to present their recent work, discuss future research directions, and exchange ideas. The topics of the workshop include, but are not limited to:

A. Foundations

foundations and models of rewriting and rewriting logic, including termination, confluence, coherence and complexity
unification, generalization, narrowing, and partial evaluation
constrained rewriting and symbolic algebra
graph rewriting
tree automata
rewriting strategies
rewriting-based calculi and explicit substitution

B. Rewriting as a Logical and Semantic Framework

uses of rewriting and rewriting logic as a logical framework, including deduction modulo
uses of rewriting as a semantic framework for programming language semantics
rewriting semantics of concurrency models, distributed systems, and network protocols
rewriting semantics of real-time, hybrid, and probabilistic systems
uses of rewriting for compilation and language transformation

C. Rewriting Languages

rewriting-based declarative languages
type systems for rewriting
implementation techniques
tools supporting rewriting langages

D. Verification Techniques

verification of confluence, termination, coherence, sufficient completeness, and related properties
temporal, modal and reachability logics for verifying dynamic properties of rewrite theories
explicit-state and symbolic model checking techniques for verification of rewrite theories
rewriting-based theorem proving, including (co)inductive theorem proving
rewriting-based constraint solving and satisfiability
rewriting-semantics-based verification and analysis of programs

E. Applications

applications in logic, mathematics, physics, and biology
rewriting models of biology, chemistry, and membrane systems
security specification and verification
applications to distributed, network, mobile, and cloud computing
specification and verification of real-time, hybrid, probabilistic, and cyber-physical systems
specification and verification of critical systems
applications to model-based software engineering
applications to engineering and planning.

INVITED SPEAKERS
(to be defined)

SUBMISSION
The final program of the workshop will include regular papers, tool papers, and work-in-progress presentations. The program will also contain invited talks, invited papers, and tutorials to be determined by the program committee.

Regular papers must contain original contributions, be clearly written, include appropriate references, and comparison with related work. They must be unpublished and not submitted simultaneously for publication elsewhere.

Tool papers have to present a new tool, a new tool component, or novel extensions to an existing tool. They should provide a short description of the theoretical foundations with relevant citations, emphasize the design and implementation, and give a clear account of the tool's functionality. The described tools must be publicly available via the web.

Work-in-progress papers present early-stage work or other types of innovative or thought-provoking work related to the topics of the workshop. The difference between work-in-progress and regular papers is that work-in-progress submissions represent work that has not reached yet a level of completion that would warrant the full refereed selection process. We encourage researchers and practitioners to submit work-in-progress papers as this provides a unique opportunity for sharing valuable ideas, eliciting useful feedback on ongoing work, and fostering discussions and collaborations among colleagues.

All submissions should be formatted according to the guidelines for Springer LNCS papers, and should be submitted electronically using EasyChair. Papers should be submitted electronically as a PDF file via the Easychair system at https://easychair.org/conferences/?conf=wrla2018

Regular and work-in-progress papers should not exceed 15 pages including references. Tool papers can have a maximum of 6 pages including references and may have an appendix of up to 4 additional pages with usage details and tool demonstration.

PUBLICATION
All submissions will be evaluated by the program committee. Regular papers, tool papers, and work-in-progress papers that are accepted will be presented at the workshop and included in the pre-proceedings, which will be available during the workshop. Following the tradition of the last editions, the regular papers, tool papers, and invited presentations will be published as a volume in Springer's Lecture Notes in Computer Science (LNCS) series to be distributed after the workshop.

A special issue of the Journal of Logical and Algebraic Methods in Programming (JLAMP) will be devoted to extended versions of selected papers from WRLA 2018.

PROGRAM COMMITTEE

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Stefan Ciobaca, Alexandru Ioan Cuza University, Romania
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CONTACT INFORMATION

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https://project.inria.fr/wrla18/