26th International Conference on Concurrency Theory

CONCUR'15, September 1–4, 2015, Madrid, Spain

Edited by

Luca Aceto

David de Frutos Escrig

Editors

Luca Aceto	David de Frutos Escrig
School of Computer Science	Facultad de Matemáticas
Reykjavik University	Universidad Complutense de Madrid
luca@ru.is	defrutos@sip.ucm.es

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Preface

This volume contains the proceedings of the 26th Conference on Concurrency Theory (CONCUR 2015), which was held in Madrid, Spain, in the period 1–4 September, 2015. CONCUR 2015 was organized by the Universidad Complutense de Madrid.

The purpose of the CONCUR conferences is to bring together researchers, developers and students in order to contribute to the development and dissemination of the theory of concurrency and its applications. Twenty five years after our first meeting in 1990, it is still the reference annual event for researchers in this field.

The principal topics include basic models of concurrency such as abstract machines, domain theoretic models, game theoretic models, process algebras, and Petri nets; logics for concurrency such as modal logics, probabilistic and stochastic logics, temporal logics, and resource logics; models of specialized systems such as biology-inspired systems, circuits, hybrid systems, mobile and collaborative systems, multi-core processors, probabilistic systems, real-time systems, service-oriented computing, and synchronous systems; verification and analysis techniques for concurrent systems such as abstract interpretation, atomicity checking, model checking, race detection, pre-order and equivalence checking, run-time verification, state-space exploration, static analysis, synthesis, testing, theorem proving, and type systems; related programming models such as distributed, component-based, object-oriented, and web services.

This edition of the conference attracted 93 full paper submissions. We would like to thank all their authors for their interest in CONCUR 2015. After careful reviewing and discussions, the Program Committee selected 33 papers for presentation at the conference. Each submission was reviewed by at least three reviewers, who wrote detailed evaluations and gave insightful comments. The Conference Chairs warmly thank all the members of the Program Committee and all the additional reviewers for their excellent work, as well as for the constructive discussions.

The conference program was further greatly enriched by the invited talks by Gianluigi Zavattaro (joint invited speaker with TGC 2015), James Worrell (plenary speaker at Madrid meet 2015), Mohammad Reza Mousavi, and Alexandra Silva. We had also a second plenary talk to celebrate the 25th anniversary of CONCUR. To mark this special occasion, it was really a pleasure and a great honour to host a keynote address by Matthew Hennessy, who was one of the invited speakers at the first CONCUR, and is a researcher who has had a big influence on the development of the Theory of Concurrency as a whole, and, in particular, on the professional trajectory of the two PC chairs of this edition of the conference. We are grateful to all the invited speakers for having accepted our invitation.

This year the conference was jointly organized with the 12th International Conference on Quantitative Evaluation of Systems (QEST 2015), the 13h International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS 2015), the 10th International Symposium on Trustworthy Global Computing (TGC 2015), and the International Symposium on Web Services, Formal Methods and Behavioural Types (WS-FM/BEAT 2015). In addition, 'Madrid meet 2015' included seven more satellite events: EPEW 2015: the 12th European Workshop on Performance Engineering; FOCLASA 2015: the 14th International Workshop on Foundations of Coordination Languages and Self-Adaptation; EXPRESS/SOS 2015: Combined 22nd International Workshop on Expressiveness in Concurrency and 12th Workshop on Structured Operational Semantics; HSB 2015: the 4th International Workshop of Hybrid Systems and Biology; TRENDS 2015: the 4th IFIP WG 1.8 Workshop on Trends

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in Concurrency Theory; PV 2015: the 2nd Workshop on Parameterized Verification; and finally, YR-CONCUR 2015: the Young Researchers Workshop on Concurrency Theory.

For the first time this year CONCUR has an open-access publication of its proceedings, initiating a new collection in LIPIcs. In this way, the Proceedings will be available to everybody, thus giving a greater dissemination to the works presented at the Conference. We are sure that the open publication of the Proceedings will bring a new profitable age to our Conference, as desired by its Steering Committee when leaning toward this new publication outlet. However, we also want to thank Springer Verlag for its great work publishing the Proceedings of the Conference during all these years.

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