

Preface

This volume contains the proceedings of the 15th Asian Symposium on Programming Languages and Systems (APLAS 2017), held in Suzhou, China during November 27–29, 2017. APLAS aims to stimulate programming language research by providing a forum for the presentation of latest results and the exchange of ideas in programming languages and systems. APLAS is based in Asia but is an international forum that serves the worldwide programming languages community.

APLAS 2017 solicited submissions in two categories: regular research papers and tool demonstrations. The conference solicits contributions in, but is not limited to, the following topics: semantics, logics, and foundational theory; design of languages, type systems, and foundational calculi; domain-specific languages; compilers, interpreters, and abstract machines; program derivation, synthesis, and transformation; program analysis, verification, and model-checking; logic, constraint, probabilistic and quantum programming; software security; concurrency and parallelism; and tools for programming and implementation.

New to APLAS in 2017, the conference employed a double-blind reviewing process with an author-response period. Within the review period, APLAS 2017 used an internal two-round review process where each submission received three first-round reviews to drive the possible selection of additional expert reviews as needed before the author response period. All submissions received at least three reviews with nearly half of the submissions receiving four or five reviews. The author response period was followed by a two-week Program Committee discussion period with over 425 comments generated and culminating in a synchronous, virtual Program Committee meeting on August 11, 2017, to finalize the selection of papers.

This year APLAS received 56 submissions. After thoroughly evaluating the relevance and quality of each paper, the Program Committee decided to accept 24 contributions. We were also honored to include four invited talks by distinguished researchers:

- Gilles Barthe (IMDEA, Spain) on “Relational Verification of Higher-Order Probabilistic Programs”
- Ron Garcia (University of British Columbia, Canada) on “Gradual Enforcement of Program Invariants”
- Sumit Gulwani (Microsoft Research, USA) on “Programming by Examples: PL Meets ML”
- Naijun Zhan (Chinese Academy of Sciences, China) on “Synthesizing SystemC Code from Delay Hybrid CSP”

This program would not have been possible without the substantial efforts of many people, whom I sincerely thank. The Program Committee, sub-reviewers, and external expert reviewers worked tirelessly to select the strongest possible program while simultaneously offering constructive and supportive comments in their reviews.

Xinyu Feng (University of Science and Technology of China) serving as general chair of APLAS 2017 ensured that all aspects of the conference planning were addressed. I also graciously thank the APLAS Steering Committee for their leadership, as well as APLAS 2016 PC chair Atsushi Igarashi (Kyoto University, Japan) for timely advice.

Lastly, I would like to acknowledge the organizers of the associated events that makes APLAS a truly exciting event: the Poster Session and Student Research Competition (Yu Zhang, University of Science and Technology of China) and the APLAS Workshop on New Ideas and Emerging Results (Wei-Ngan Chin, National University of Singapore and Zhenjiang Hu, National Institute of Informatics, Japan).

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