

# QUANTITATIVE ASPECTS OF PROGRAMMING LANGUAGES AND SYSTEMS



Eindhoven, The Netherlands, 2-3 April, 2016 at **ETAPS 2016**

## SCOPE

The scope of the QAPL workshop is to discuss new developments on the quantitative evaluation of systems, with an emphasis on quantitative aspects of computation, broadly construed. We solicit papers on theory, engineering methodologies, tools, case studies, and experience reports where quantitative properties such as bandwidth, cost, energy, memory, performance, probability, reliability, security, and time are first-class citizens.

## TOPICS

Topics of interest include (but are by no means not limited to):

- The design of probabilistic, deterministic, hybrid, real-time, and quantum languages, and the definition of their semantical models.
- Quantitative analysis techniques such as simulation, numerical solution, symbolic approaches, optimisation methods.
- Specification of quantitative properties such as probabilistic model checking and reward structures.
- Methodologies and frameworks for the engineering of systems based on quantitative information, such as reliability engineering and software performance engineering.
- Software tools to support the quantitative analysis of systems.
- Case studies and applications, for instance about coordination models, cyber-physical systems, security, self-adaptive systems, smart grids, systems of systems as well as natural/physical domains such as chemistry and systems biology.

## SUBMISSION

In order to encourage participation and discussion, this workshop solicits two types of submissions - regular papers and presentations:

1. **REGULAR PAPERS:** Submissions must be original work, and must not have been previously published, nor be under consideration for publication elsewhere.
2. **PRESENTATION REPORTS** concern recent or ongoing work on relevant topics and ideas, for timely discussion and feedback at the workshop. There is no restriction as for previous/future publication of the contents of a presentation. Typically, a presentation is based on a paper which recently appeared (or which is going to appear) in the proceedings of another recognized conference, or which has not yet been submitted. The (extended) abstract of presentation submissions should not exceed 4 pages.

## IMPORTANT DATES

### REGULAR PAPERS:

- Submission: 26 Jan 2016 (extended)
- Notification: 18 Feb 2016
- Final version: 5 Mar 2016

### PRESENTATION REPORTS:

- Submission: 20 Feb 2016
- Notification: 25 Feb 2016

## INVITED SPEAKERS

- BOUDEWIJN HAVERKORT  
University of Twente, NL
- CHUNG-CHIEH SHAN  
Indiana University, US
- ANTONIO FILIERI  
Imperial College London, UK

## PROGRAM CO-CHAIRS

- MIRCO TRIBASTONE  
IMT Lucca, IT
- HERBERT WIKLICKY  
Imperial College London, UK