

Preface to the Proceedings of the Demonstrations Track of PRIMA 2017

This volume collects the contributions presented at the Demonstrations Track of PRIMA 2017, the 20th International Conference on Principles and Practice of Multi-Agent Systems held in Nice, France, from November 1st to 3rd 2017.

The Demonstrations Track took place on November 1st and complemented the Research Paper track of the conference, offering an opportunity to researchers for presenting late-breaking research results, on-going research projects, and speculative or innovative work in progress. The informal setting of the Demonstrations Track, co-located with the Posters Session, encouraged presenters and participants to engage in discussions about their work. Such discussions provided precious inputs for the future work of the presenters, while offering participants an effective way to broaden their knowledge of the emerging research trends and to network with other researchers.

The PRIMA 2017 Demonstrations Track received 4 submissions, all accepted for presentation after a peer-review evaluation. The accepted papers dealt with different topics, making the session lively and interesting.

In the demonstration of their work “A Generic Multi-Agent Framework for Medical-Image Segmentation”, Mohamed T. Bennai, Zahia Guessoum, Smaine Mazouzi, Stéphane Cormier, and Mohamed Mezghiche showed how to exploit autonomous and interactive agents that use a modified region growing algorithm and cooperate to segment medical images. The proposed algorithm is general, as it can be applied to different kinds of images, and requires limited human intervention. This is an advantage w.r.t. many existing solutions developed for one type of images only and requiring many inputs from the user.

Angelo Ferrando demonstrated the usage of “RIVERtools: an IDE for Runtime VERification of MASs, and Beyond”, as the paper title explains. RIVERtools supports the use of the “trace expressions” formalism by users that want to perform runtime verification of their own system. More in details, it supports the automatic generation of code to be used to implement the blackbox runtime verification engine of a generic software systems, and focuses in particular on challenging scenarios where the target system is a MAS.

A data-driven agent-based simulation of individual mobility based on spatio-temporal data from mobile phones was presented by Arnaud Grignard, Luis Alonso, Núria Macià, Marc Vilella, and Kent Larson in their paper “CityScope Andorra Data Observatory: A Case Study on Tourism Patterns”. The work analyzes the visitors’ flow and traffic congestion of Andorra through an agent-based

visualization using different representation and abstraction features.

Finally, Bas Testerink and Floris Bex presented a practical approach for “Developing Argumentation Dialogues for Open Multi-Agent Systems”, as stated by the title of their paper. They started from the observation that, despite the large amount of research into the formal aspects of dialogue games for argumentation, actual software and development tools that allow for the deployment of open, multi-agent dialogue environments are still lacking. To fill this gap, they presented the first steps towards a such an environment, where agents can engage in peer-to-peer argumentation dialogues.

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