

REPORT ON HIGHLIGHTS 2013

Highlights of Logic, Games and Automata

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The Highlights conference kicked off with its first, very successful meeting in Paris. The inaugural event took place in Université Paris Diderot – near the Bibliothèque François Mitterand – and its local organisers were Dietmar Berwanger and Thomas Colcombet. It lasted only for three days, from the 19th to the 21st of September, from Thursday to Saturday.

According to Mikołaj Bojańczyk – one of the main initiators of the new conference – the idea was to continue the tradition of the GAMES workshop, and to create a proceedings-free venue, at which the most important results obtained in the last few years in the areas of logic, automata and games are presented.

Statistics prove that this aim was accomplished. A total of 95 submissions for contributed talks were received – all of them accepted – representing a total of 192 coauthors. Overall, there were 218 registered participants, filling the auditorium to its limits. By nationalities: 82 from France, 51 from Germany, 22 from Poland, 16 from the UK, 12 from Belgium, 9 from Italy, 8 from the Czech Republic, 6 from the USA and 12 from other countries.

The meeting was preceded by a tutorial day, consisting of two three-hour tutorials. Jérôme Leroux talked about the reachability problem for Petri nets, and presented a large part of his new, elegant geometric proof of the classical result that the reachability problem for Petri nets is decidable. Martin Grohe gave a tutorial on Logic for Algorithms, and gave a broad overview of algorithmic metatheorems, and announced a new, fantastic result culminating this line of research, concerning the evaluation of first-order logic on nowhere-dense classes of graphs.

The invited talks took place in the mornings, and also after lunch on Friday; they lasted 50 minutes each. In the first invited talk, Patrice Godefroid explained how SMT solvers are used in modern software verification, and how these methods lead to efficient elimination of bugs in the software produced by Microsoft. On Friday morning, Erich Grädel gave an excellent survey talk on logics for polynomial time, encouraging the audience to take part in the quest. Friday afternoon saw Marco Scarsini present a new notion of equilibria in countable games. On Saturday morning Moshe Vardi gave a very good overview talk on the rise and fall of Linear Temporal Logic.

For the first two days of the conference, the talks were delivered in a series of five sessions which lasted from 9am to 6.30pm. The third day's contributed talks were split into two parallel threads. With such a tight program, the contributed

talks were scheduled to last only about 10 minutes each on the first two days, and 15 minutes on the third day.

My personal opinion is that such short talks were beneficial for two reasons. Firstly, they allowed the speakers to maintain the attention of a big part of the audience. Secondly, they forced the speakers to focus on only one or two key aspects of their entire work, resulting in a higher-than-usual average quality of the talks. One drawback of the tight schedule was the short length of some of the breaks.

To the surprise of many, despite of the tight schedule and full auditorium, the organization was extremely efficient. Several innovations helped improve the quality of the sessions. The speakers were asked to submit their presentations by Tuesday, before the start of the conference. This allowed the organizers to smoothly handle the slides during the sessions. It also had the benefit that members of the audience were not distracted by the creation of their own slides during the talks. A small innovation which helped the session chairs were specially prepared cards used to display the remaining time to the speaker. Lastly, an electronic feedback system was available to those willing to participate, allowing the speakers to gather anonymous comments concerning their own talk.

The participation in the conference was free of fees, thanks to the generosity of the invited speakers, who agreed to cover their travel costs from other funds. The organizers provided coffee and snacks for two breaks per day and a lunch on Saturday. Some participants complained on undercaffeination.

There was no official social event, in order to cut down the costs. However, Nathanaël Fijalkow has volunteered to organize an unofficial event – a contributory picnic at the banks of the Seine river, typical to the Parisians. According to unconfirmed information, up to seventy people indulged themselves in the pleasures of French wine, cheese and baguette. All survived.

After the great success of the first meeting of the new Highlights conference, the next event is planned to take place also in Paris, in 2014.