Report on DCFS 2012

14th International Workshop on Descriptional Complexity of Formal Systems Braga, Portugal, July 23 – 25, 2012

Andreas Malcher Universität Giessen

The annual workshop on descriptional complexity of formal systems gathers scientists from many different fields in computer science and aims to provide an opportunity to get in contact with researchers interested in descriptional complexity and its applications. DCFS 2012, the 14th workshop in this series, was held at Braga, Portugal from July 23 to 25, 2012. It was organized jointly by the University of Porto and the University of Minho with the support of the University of Beira Interior. The workshop took place at *Museu D. Diogo Sousa* in Braga, and Sabine Broda, Maria João Frade, Nelma Moreira, Rogério Reis, and Simão Sousa constituted the organizing committee.

The scientific program consisted of four invited talks and 20 accepted papers which have been chosen by the Program Committee from 33 submissions on the basis of three reviews for each submission. The program can be found on the website http://www.dcc.fc.up.pt/DCFS12/program/index.html.

The proceedings, edited by Martin Kutrib, Nelma Moreira and Rogério Reis, contain all invited talks and contributions, and have been published by Springer as volume 7386 in the series *Lecture Notes in Computer Science (LNCS)*. Full versions of selected papers will be published in a special issue of the Journal of Automata, Languages and Combinatorics.

The invited talks covered several interesting topics and were given (in order of appearance) by

- Dexter Kozen (Ithaca, USA) on "Computing with Capsules"
- Pedro Silva (Porto, Portugal) on "Groups and Automata: A Perfect Match"
- Christos Kapoutsis (Paris, France) on "Minicomplexity"
- André Platzer (Pittsburgh, USA) on "Logical Analysis of Hybrid Systems"

The Business Meeting of the IFIP Working Group 1.2 on Descriptional Complexity was headed by Giovanni Pighizzini. In the beginning, he passed over to Martin Kutrib who gave a short speech honoring *Jürgen Dassow* on the occasion of his 65th birthday. Martin also presented Jürgen with a festschrift titled

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"Languages Alive" which contains several essays contributed by many of Jürgen's colleagues. The festschrift has been published by Springer as volume 7300 in the LNCS series. Back in the business meeting, Giovanni gave briefly an overview on the working group and its activities in the last year. Then, he commemorated *Sheng Yu* who passed away in January 2012 and he brought to mind which benefits Sheng did for the scientific community and, in particular, for the working group and DCFS. Finally, he presented shortly the workshop site where DCFS 2013 will take place. DCFS 2013 will be in London, Ontario, Canada and is planned from July, 22nd to July, 25th 2013 directly after CIAA 2013 which will take place in Halifax, Canada.

The social program of the workshop started actually one day before the workshop with a wonderful reception at the Museu D. Diogo Sousa. The participants were deeply impressed by the large variety of excellent dishes from the Portuguese cuisine. Additionally, the reception was accompanied by live guitar music. The social program was continued on July, 24th with an excursion by bus to the nearby city Guimarães which is an European Capital of Culture in 2012. We took a guided tour through the historical center of Guimarães with many interesting details given by the guide. After the tour there was enough time to visit and explore the city for oneself. Finally, in the evening we met for a wonderful conference dinner at the Restaurant Histórico in Guimarães where we had again the opportunity to enjoy the superb Portuguese cuisine.

Thank you to the organizers for their excellent work and all participants for the nice and successful workshop. Welcome to DCFS 2013 in London, Canada!