REPORT ON NCMA 2011

3rd Workshop on Non-Classical Models of Automata and Applications
18-19 July 2011, Milano, Italy

Manfred Kudlek

NCMA 2011, the 3rd workshop in this series, took place at Milano from July 18-19, in Sala di Rappresentanza of the main building of Università degli Studi di Milano, a nice room for representation and meetings in a historical building.

The organizing committee consisted of Rudolf Freund, Markus Holzer, Carlo Mereghetti, Friedrich Otto, Beatrice Palano, as well as Laura Scolari, and Isidora Gazzillo. The workshop was supported by Institut für Computersprachen der Technischen Universität Wien. NCMA 2011 was attended by 32 participants from 10 countries, with details as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>10</td>
</tr>
<tr>
<td>IT</td>
<td>10</td>
</tr>
<tr>
<td>CA</td>
<td>2</td>
</tr>
<tr>
<td>LV</td>
<td>2</td>
</tr>
<tr>
<td>CZ</td>
<td>1</td>
</tr>
<tr>
<td>HU</td>
<td>1</td>
</tr>
</tbody>
</table>

The scientific program consisted of 2 invited lectures and 12 contributions selected from 18 submissions from 9 countries as shown below (C country, I invited, A accepted):

<table>
<thead>
<tr>
<th>Country</th>
<th>Invited</th>
<th>Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>1/6</td>
<td>1</td>
</tr>
<tr>
<td>DE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>LV</td>
<td>1/3</td>
<td></td>
</tr>
<tr>
<td>CZ</td>
<td>1/6</td>
<td></td>
</tr>
<tr>
<td>HU</td>
<td>1/6</td>
<td></td>
</tr>
<tr>
<td>RO</td>
<td>1/6</td>
<td></td>
</tr>
<tr>
<td>RS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SK</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

It can be found at http://www.informatik.uni-giessen.de/ncma2011/.

The workshop was opened on Monday morning by Carlo Mereghetti, introducing NCMA, welcoming participants, and giving information on organization.

The first invited lecture ‘Quantum Finite Automata’ by Andris Ambainis was a very good survey on quantum finite automata (QFA), in particular on their space efficiency, on the difference between 1-way and 2-way QFA, and relations between QFA and quantum Markov chains. With the second invited talk, ‘An Alternating Hierarchy for Finite Automata’, Viliam Geffert gave an excellent presentation on the infinite hierarchy of state complexity classes of 2-way alternating finite automata, also solving several open problems. Good and interesting talks
were given by Maria Paola Bianchi on regularity of languages defined by formal series, and on normal forms for unary probabilistic automata, by Alain Finkel on Parikh automata and related models, by Matthias Wendlandt on string assembling systems, and by Ondřej Klíma on bioautomata.

The proceedings, edited by Rudolf Freund, Markus Holzer, Carlo Mereghetti, Friedrich Otto, and Beatrice Palano, containing all invited talks and contributions, have been published as Band 282 of ÖSTERREICHISCHE COMPUTER GESELLSCHAFT. In the coffee breaks coffee, mineral water, juice, and pastries were offered. On Monday evening there was a social dinner in the restaurant Cantina Piemontese, about 2 minutes walk from the conference site. There we were offered a choice of typical regional dishes and wines. It lasted well until 24 h. Weather was warm and sunny, with highest temperatures around 25°C.

In summary, the workshop was successful, at a high level, and in a nice atmosphere. Next NCMA will be held in 2012 in Fribourg, Switzerland.