EDITORIAL

This special issue contains papers on topics of the workshop

Weighted Automata: Theory and Applications (*WATA* 2006)

which took place at Leipzig University (Germany), March 27–31, 2006.

As for its predecessors WATA 2002 and WATA 2004, the goal of this workshop was to highlight the field of weighted automata, ranging from the theory of formal power series to quantum automata and applications, e. g., in digital image processing or model-checking of probabilistic systems.

The workshop was attended by 45 participants from 12 countries. Two tutorials were given by

J. Albert (Würzburg),   J. Gruska (Brno).

In addition, eight invited lectures were presented by

C. Baier (Bonn),   S. Bozapalidis (Thessaloniki),

Z. Ésik (Szeged),   P. Gastin (Paris-Cachan),

J. Kari (Turku/Iowa),   W. Kuich (Wien),

I. Meinecke (Leipzig),   G. Rahonis (Thessaloniki).

Furthermore, nine talks were selected as contributed communications.

This workshop was financially supported by the activity "Automata: from Mathematics to Applications" of the *European Science Foundation*, the Graduiertenkolleg "Knowledge Representation" of the *German Research Foundation (DFG)* at Leipzig University, and the "Vereinigung von Förderern und Freunden der Universität Leipzig e. V.".

After the workshop, a call for papers for a special issue of the Journal of Automata, Languages and Combinatorics on "Weighted Automata: Theory and Applications" was issued. Following the standard refereeing procedure, we were pleased to accept the present six papers for this special issue.

Manfred Droste (Leipzig)   November 2007
Heiko Vogler (Dresden)