DCFS 2007

9th International Workshop on

Descriptional Complexity of Formal Systems

High Tatras, Slovakia, July 20 – 22, 2007
http://dcfs07.ics.upjs.sk

Call for Papers

Deadline for submissions:	April 4, 2007
Notification of acceptance or rejection:	May 5, 2007
Final copy for the proceedings:	May 30, 2007
Workshop:	July 20 – 22, 2007

The area of interest covers descriptional complexity in various areas, e.g., automata, grammars and languages, Boolean functions and circuits, formal systems, unconventional models of computing, as well as the relationship to structural, computational, and Kolmogorov complexities. (For a list of topics, see below.)

DCFS 2007 will take place immediately after CIAA 2007 – 12th International Conference on Implementation and Application of Automata, Prague, Czech Republic, July 16 – 18, 2007, and thus it will be easy to attend both CIAA and DCFS.

Invited speakers

Helmut Jürgensen	(Potsdam, Germany, and London/Ontario, Canada)
Carlo Mereghetti	(Milano, Italy)
Markus Nebel	(Kaiserslautern, Germany)
Jiří Wiedermann	(Praha, Czech Republic)

Program committee

Henning Bordihn	(Potsdam, Germany)
Cristian Calude	(Auckland, New Zealand)
Erzsébet Csuhaj-Varjú	(Budapest, Hungary)
Viliam Geffert	(Košice, Slovakia, co-chair)
Juraj Hromkovič	(Zürich, Switzerland)
Oscar Ibarra	(Santa Barbara/California, U.S.A.)
Lucien Ilie	(London/Ontario, Canada)
Alica Kelemenová	(Opava, Czech Republic)
Werner Kuich	(Wien, Austria)
Hing Leung	(Las Cruces/New Mexico, U.S.A.)
Andreas Malcher	(Frankfurt, Germany)
Carlos Martín-Vide	(Tarragona, Spain)
Bořivoj Melichar	(Praha, Czech Republic)
Victor Mitrana	(Bucureşti, Romania)
Jeffrey Shallit	(Waterloo/Ontario, Canada)
Gheorghe Pãun	(Bucureşti, Romania, and Sevilla, Spain)
Holger Petersen	(Stuttgart, Germany)
Giovanni Pighizzini	(Milano, Italy, co-chair)
Jacques Sakarovitch	(Paris, France)
Sheng Yu	(London/Ontario, Canada)

DCFS and its predecessors DCAGRS (Descriptional Complexity of Automata, Grammars and Related Structures) and FDSR (Formal Descriptions and Software Reliability) were previously held in Paderborn (1998); Magdeburg (1999); Boca Raton (1999); London/Ontario (2000); San Jose (2000); Vienna (2001); London/Ontario (2002); Budapest (2003); London/Ontario (2004); Como (2005); and Las Cruces/New Mexico (2006).

Topics

Topics include, but are not limited to:
- various measures of descriptional complexity of automata, grammars, languages, and of related systems,
- trade-offs between different formal systems and/or different modes of operation (e.g., determinism and nondeterminism) with respect to descriptional complexity,
- circuit complexity of Boolean functions and related measures,
- succinctness of description of (finite) objects,
- descriptional complexity in resource-bounded or structure-bounded environments,
- structural complexity,
- descriptional complexity of formal systems for applications (e.g., software reliability, software and hardware testing, modelling of natural languages),
- descriptional complexity aspects of nature-motivated (bio-inspired) architectures and unconventional models of computing,
- Kolmogorov complexity and its relation to descriptional complexity.

Submissions concerning the descriptional complexity of formal systems and structures (and its applications) are invited for DCFS 2007.

In accordance with the spirit of a workshop, the program committee will try to accept as many papers as possible, provided that their scientific quality is high and merits acceptance. If the number of such papers exceeds the number of time slots for 'regular' presentation, the program committee will try to accept some papers as 'short' papers.

Proceedings

All invited and accepted papers will appear in the conference proceedings, which will be available during the conference. In addition, selected papers will be published in a special journal issue.

Conference location

In order to help people socialize and exchange new ideas, DCFS 2007 will be organised as a single-building-conference. That is, accommodation for all participants, full-board meals, together with a lecture room will be in Atrium Hotel, Nový Smokovec, High Tatras, Slovakia.

Smokovec is an administrative centre (actually, a tiny town) of Tatra National Park, the most compact mountains in Europe, i.e., of alpine type, but occupying a very small area. Among others, the High Tatras offer exceptionally clean air. In summer season, you can enjoy hiking paths, ranging from gentle to highly demanding, winding among spectacular peaks and rock walls. (See e.g. http://www.tanap.sk/ or http://www.tatry.net/ .)

Instructions for authors

The length of a submission should not exceed 12 pages, fitting to a4 paper, using 11pt character size, and standard line spacing. If you believe that more details are necessary to substantiate the main claims of your contribution, but these details would not fit within the given page limit, you may include a clearly marked appendix that will be read at the discretion of Program Committee.

Submitted versions of contributions should not reveal identity of authors. Such confidential information will be handled by Program Committee Chairs only, but not forwarded to other PC members or referees.

Simultaneous submissions to other conferences with published proceedings are not allowed.

(We remind that the Program Committee can decide to accept a paper as a regular contribution, in full length of 12 pages, or as a short contribution, the final version of which should not exceed 8 pages in the proceedings.)

To obtain technical details for preparing a manuscript and for sending your submission, visit the DCFS 2007 website http://dcfs07.ics.upjs.sk, item 'For Authors'.

Participating institutions

DCFS 2007 is jointly organised by the IFIP Working Group 1.2 on Descriptional Complexity, by the Institute of Computer Science of P. J. Šafárik University, Košice, Slovakia, and by the Slovak Society for Computer Science. The workshop is sponsored by the Department of Informatics and Communication of the University of Milano, Italy.

Steering committee

Erzsébet Csuhaj-Varjú	(Budapest, Hungary)
Jürgen Dassow	(Magdeburg, Germany)
Helmut Jürgensen	(Potsdam, Germany, and London/Ontario, Canada)
Hing Leung	(Las Cruces/New Mexico, U.S.A.)
Lucian Ilie	(London/Ontario, Canada)
Chandra Kintala	(Bangalore, India)
Giovanni Pighizzini	(Milano, Italy, chair)
Detlef Wotschke	(Frankfurt, Germany)

Organising committee

Gabriela Andrejková, Jozef Gajdoš, František Galčík, Viliam Geffert, Peter Mlynárčik, Dana Pardubská, Gabriel Semanišin (chair), Eva Trenklerová

Website and contacts

More detailed on-line information will be displayed at

http://dcfs07.ics.upjs.sk ,

personal inquires should be sent to

dcfs07@ics.upjs.sk   - for program and organising committees,
dcfs07@dico.unimi.it   - for program and steering committees,

or to DCFS 2007 Organising Committee, Institute of Computer Science, P. J. Šafárik University, Jesenná 5, 040 01 Košice, Slovakia.