Preface


Having transformed itself over the years from a local event to a fully international conference, the contemporary SOFSEM tries to keep the best of its winter school aspects (the high number of invited talks) together with multidisciplinarity trends in computer science – this year illustrated by the selection of the following 4 tracks:

- Computer Science Theory (Track Chair: Peter Van Emde Boas)
- Database Technologies (Track Chair: Jaroslav Pokorný)
- Cognitive Technologies (Track Chair: Peter Sinčák)
- Web Technologies (Track Chair: Július Štuller)

Its aim was, as always, to promote cooperation among professionals from academia and industry working in various areas of computer science.

The 17 SOFSEM 2004 Program Committee members coming from 9 countries evaluated a record 136 submissions. After a careful review process (counting usually at least 3 reviews per paper), followed by detailed discussions at the PC meeting held on October 2–3, 2003 in Prague, Czech Republic, 59 papers were selected for presentation at the SOFSEM 2004:

- 22 contributed talks papers selected by the SOFSEM 2004 PC for publication in the Springer-Verlag LNCS proceedings volume (acceptance rate 19%), including the best paper from the Student Research Forum,
- 29 contributed talks papers that will appear in the MatFyzPress Proceedings (acceptance rate 26%),
- 9 student research forum papers (acceptance rate 38%), 8 of which will appear in the MatFyzPress proceedings.

The Springer-Verlag proceedings were completed by the 10 invited talks papers.

SOFSEM 2004 was the result of considerable effort by a number of people. It is our pleasure to express our thanks to:

- the SOFSEM Steering Committee for its general guidance,
- the SOFSEM 2004 Program Committee and additional referees who devoted an extraordinary effort to reviewing a huge number of assigned papers (on average about 24 papers per PC member),
- the Springer-Verlag LNCS Executive Editor Mr. Alfred Hofmann for his continuing trust in SOFSEM,
- Springer-Verlag for publishing the proceedings, and
- the SOFSEM 2004 Organizing Committee for a smooth preparation of the conference.
Special thanks go to:
- Hana Bílková from the Institute of Computer Science (ICS), Prague, who did an excellent job in the completion of the proceedings,
- Michal Bušta and Martin Stareček from ICS for realizing the SOFSEM 2004 web pages and a submission and review system that worked perfectly thus allowing a smooth PC session in Prague.

Finally we highly appreciate the financial support of our sponsors (ERCIM, Microsoft, Deloitte & Touche, SOFTEC Bratislava, Centrum.cz) which assisted with the invited speakers and helped the organizers to offer lower student fees.

November 11, 2003

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Vangelis Angelakis
Grigoris Antoniou
Yannis Askoxylakis
Krzysztof Banaskiewicz
Andrzej Bassara
David Bednárek
Hans-Joachim Boeckenhauer
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Miroslav Galbavý
Christos Georgis
Jurgen Giesl
Jacek Gomoluch
Jurriaan Hage
Pavel Hloušek
Martin Holeňa
Tomasz Kaczmarek
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Stamatis Karvounarakis
George Kokkinidis
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Charles University, Faculty of Mathematics and Physics, Prague
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Institute of Computer Science, Masaryk University, Brno
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## Invited Talks

Games, Theory and Applications

*H.J. van den Herik, H.H.L.M. Donkers*

Database Research Issues in a WWW and GRIDs World

*K.G. Jeffery*

Integration, Diffusion, and Merging in Information Management Discipline

*V. Kumar*

Flexibility through Multiagent Systems: Solution or Illusion?

*P.C. Lockemann, J. Nimis*


*N. Milic-Frayling*

Querying and Viewing the Semantic Web: An RDF-Based Perspective

*D. Plexousakis*

Knowledge Acquisition and Processing: New Methods for Neuro-Fuzzy Systems

*D. Rutkowska*

Algorithms for Scalable Storage Servers

*P. Sanders*

Fuzzy Unification and Argumentation for Well-Founded Semantics

*R. Schweimeier, M. Schroeder*

Tree Signatures and Unordered XML Pattern Matching

*P. Zezula, F. Mandreoli, R. Martoglia*

## Regular Papers

Quantum Query Complexity for Some Graph Problems

*A. Berzina, A. Dubrovsky, R. Freivalds, L. Lace, O. Scegulnaja*

A Model of Versioned Web Sites

*M. Bieliková, I. Noris*
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