Call for Papers, Call for Workshops

The 23rd International Symposium on
Mathematical Foundations of Computer Science

August 24-28, 1998, Brno, Czech Republic

BASIC INFORMATION

MFCS'98 is organised by the Faculty of Informatics of Masaryk University in cooperation with universities in Aachen, Hagen, Linz, Pisa, Szeged, Wien, and other institutions.

MFCS'98 will be held 25 years after the first MFCS meeting in Czechoslovakia at Štrbské pleso. MFCS'73 is remembered for taking a very broad, advanced, and stimulating view of the theoretical foundations of computing, and for the high scientific and organisational standard. MFCS'98 is intended to be another step along these lines.

Programme Committee: *S. Abramsky (Edinburgh), B. Buchberger (Linz), J. Díaz (Barcelona), V. Diekert (Stuttgart), J. Gruska, co-chair (Brno), I. Guessarian (Paris), T. Henzinger (Berkeley), R. J. Lipton (Princeton), G. Mirkowska (Pau), F. Moller (Uppsala), U. Montanari (Pisa), J. Nešetřil (Prague), M. Paterson (Warwick), G. Păun (Bucharest), J. Sgall (Prague), W. Thomas (Kiel), J. Tiuryn (Warsaw), U. Vaccaro (Salerno), P. Vitányi (Amsterdam), P. Voda (Bratislava), M. Wirsing (Munich), J. Zlatuška, co-chair (Brno).*

Principal topics of interest include (but are not limited to): *design and analysis of algorithms (sequential, parallel, distributed, approximation, computational biology, computational geometry, graph, network, number theory, on-line, optimisation) and data structures, automata, grammars and formal languages, complexity (communication, computational, descriptional) and computability, concurrency theory, cryptography and security, databases and knowledge-based systems, foundations of programming, formal specifications and program development, models of computation, parallel and distributed computing, quantum computing, molecular computing, semantics and logics of programs, theoretical issues in artifical intelligence.*

Invited talks of broad and stimulating orientation are offered, consistent with the more than quarter-century tradition of MFCS. Speakers: *G. Ausiello (Rome), E. Börger (Pisa), Y. Gurevich (Ann Arbor), D. Harel (Rehovot), R.M. Karp (Seattle), F.T. Leighton (MIT-Cambridge), W. Maass (Graz), Yu. Matiyasevich (Petersburg), K. Mehlhorn (Saarbrücken), S. Micali (MIT-Cambridge), M. Nielsen (Aarhus), A. Pnueli (Rehovot), P. Pudlák (Prague), C. Stirling (Edinburgh), J. Wiedermann (Prague), M. Yannakakis (Murray Hill).*

MFCS'98 will have several **tutorials** and **workshops**. Proposals can be sent to PC co-chairs. For current list of workshops and tutorials see the other page.

The **CSL'98** conference (Computer Science Logic) will be held in parallel with MFCS'98 at the same place. The federated CSL/MFCS conference will have common plenary sessions and social events. Participants registering for one conference can attend talks of both conferences and parallel workshops.

Contact persons: Antonín Kučera (PC secretary), Jan Staudek (OC chair)

Address: MFCS'98, Faculty of Informatics, Masaryk University
Botanická 68a, 60200 Brno, Czech Republic
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Costs: The conference fee will be very reasonable as well as daily expenses (see the www page for details). The accommodation prices range from business-like level to very modest. Students will be able to participate at a very low cost. The best student papers will be specially recognised. The social programme will include a reception, an excursion to nearby attractions, a conference dinner, and activities for accompanying persons.

First deadline: The first deadline is the usual one. Accepted papers go to the hard copy proceedings. Authors are invited to submit an extended abstract not exceeding *10 LNCS pages.* Papers are thoroughly reviewed, double submissions other than those explicitly mentioned by MFCS/CSL PC are not allowed (see the www page for details).

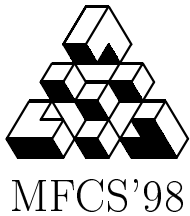|	
Submission:	**March 20, 1998**
Notification:	May 20, 1998

Second deadline: The second deadline is for "wild tiger" session (last minute hot topics). Accepted papers will appear in electronic proceedings. Authors are invited to send an abstract not exceeding *5 pages.* The emphasis is on attractiveness of potential talks. There is no restriction on double submissions.

Submission:	**July 1, 1998**
Notification:	August 1, 1998

All submission should be done electronically using special www forms (see the URL below).

For more and up-to-date information see the www page `http://www.fi.muni.cz/mfcs98/`.

MFCS'98 Workshops and Tutorials

The 23rd International Symposium on
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August 22–30, 1998, Brno, Czech Republic

The Current State to April 24, 1998

MFCS'98 Satellite Workshops

CCA'98 — Workshop on Computability and Complexity in Analysis

(August, 24–27) All aspects of computability and computational complexity with emphasis on the Turing machine model of computation.

PC: Ker-I Ko (Stony Brook), A. Nerode (Cornell University), M. Pour-El (Minnessota), K. Weihrauch (chair, Hagen), J. Wiedermann (Prague).

Deadline: **May 25, 1998**

Contact: `Klaus.Weihrauch@fernuni-hagen.de`

FICS'98 — Fixed Points in Computer Science

(August 27–28) Construction and reasoning about properties of fixed points in various models, algebras, and logics.

PC: R. Backhouse (Eindhoven), S.L. Bloom (Hoboken), C. Boehm (Rome), R. De Nicola (Florence), Z. Esik (chair, Szeged), P. Freyd (Philadelphia), I. Guessarian (Paris), D. Kozen (Cornell), W. Kuich (Vienna), M. Mislove (Tulane), R.F.C. Walters (Sydney).

Deadline: **May 25, 1998**

Contact: `esik@inf.u-szeged.hu`

Frontiers between Decidability and Undecidability

(August 24–25) Frontiers between decidable and undecidable (halting) problems in various computational settings.

PC: J. Gabarro (Barcelona), I. Korec (Bratislava), Yu. Rogozhin (Kishinev), M. Margenstern (co-chair, Metz), G. Mauri (Milan), K. Morita (co-chair, Hiroshima), G. Păun (Bucharest).

Deadline: **May 25, 1998**

Contact: `margens@antares.iut.univ-metz.fr`

Mathematical Linguistics

(August 27–28) Mathematical and logical foundations and methods in linguistics.

PC: E. Csuhaj-Varjú (Budapest), M. Kudlek (Hamburg).

Deadline: **May 25, 1998**

Contact: `kudlek@informatik.uni-hamburg.de`

MFCS'98 Workshop on Cellular Automata

(August 25–27) All aspects of cellular automata (models of parallelism, complex systems, dynamical systems, interactive behaviour, physical systems, models of biological systems, cellular automata machines).

PC: G. Cattaneo (Milano), B. Durand (Lyon), M. Garzon (Memphis), G. Mauri (Milano), J. Mazoyer (Lyon), H. Umeo (Osaka), R. Vollmar (chair, Karlsruhe), T. Worsch (Karlsruhe).

Deadline: **May 25, 1998**

Contact: `vollmar@ira.uka.de,worsch@ira.uka.de`

MFCS'98 Workshop on Communications

(August 24–26) Communication complexity, communication algorithms in networks, interactive and zero-knowledge proofs, cryptography and cryptographical protocols.

PC: M. Dietzfelbinger (Dortmund), P. Ďuriš (Bratislava), J. Hromkovič (chair, Aachen), R. Klasing (Warwick), A. Liestman (Burnaby), A. Pelc (Hull), G. Schnitger (Frankfurt), J. Sgall (Prague), W. Unger (Paderborn)

Deadline: **March 20, 1998 (corrected!)**

Contact: `jh@I1.Informatik.RWTH-Aachen.de`

MFCS'98 Workshop on Concurrency

(August 27–28) Decidability and complexity issues, model checking, software tools for modelling and verification of concurrent systems, verification of infinite-state processes.

PC: A. Bouajjani (Grenoble), J. Bradfield (Edinburgh), W. Brauer (Munich), P. Jančar (co-chair, Ostrava), M. Křetínský (co-chair, Brno), M. Nielsen (Aarhus), C. Stirling (Edinburgh).

Deadline: **May 25, 1998**

Contact: `mojmir@fi.muni.cz`

MFCS'98 Workshop on Grammar Systems

(August 22–23) Cooperating/distributed grammar systems, colonies, team grammar systems, eco-grammar systems, network and language processors.

PC: E. Csuhaj-Varju (Budapest), J. Dassow (Magdeburg), J. Kelemen (Bratislava/Opava), A. Kelemenová (chair, Opava), G. Păun (Bucharest, Turku), D. Wotschke (Franfurkt).

Deadline: **May 31, 1998**

Contact: `kelemenova@fpf.slu.cz`

Molecular Computing

(August 24–26) Any theoretical computer science directions of research on the possible use of DNA as a support for computation.

PC: C. Calude (Auckland), T. Head (Binghamton), L. Kari (London-Ontario), K. Krithivasan (Madras), G. Păun (chair, Bucharest), T. Yokomori (Tokyo).

Deadline: **May 25, 1998**

Contact: `gpaun@imar.ro`

Randomized Algorithms

(August 26–28) Design and analysis of randomized algorithms, derandomization, randomized complexity classes.

PC: S. Arikawa (Fukuoka), S. Arora (Princeton), H. Buhrman (Amsterdam), C. Calude (Auckland), L. Fortnow (Chicago), R. Freivalds (chair, Riga), J. Hromkovič (Aachen), R. Impagliazzo (San Diego), L. Kučera (Prague), Ming Li (Waterloo), A. Lingas (Lund), S. Rajasekaran (Gainesville), J. Rolim (Geneva), O. Watanabe (Tokyo), R. Wiehagen (Kaiserslautern), T. Zeugmann (Fukuoka)

Deadline: **March 20, 1998**

Contact: `rusins@paul.cclu.lv`

Weak Arithmetic

(August 27–28) Weak arithmetics, complexity of logical theories, complexity of algorithms in number theory, recursive analysis.

PC: P. Cegielski (chair, Paris), I. Korec (Bratislava), Y. Matyiasevich (Petersburg), D. Richard (Clermont-Ferrand).

Deadline: **March 20, 1998**

Contact: `cep@capella.liafa.jussieu.fr`

x^{th} Peripathetic Seminar on Sheaves and Logic, $x \geq 66$.

(August 29–30) Category theory, sheaves, logic, applications to computer science.

PC: none.

Deadline: **August 29, 1998**

Contact: `rosicky@math.muni.cz`

MFCS'98 Tutorials

Abstract state machines
by *E. Börger (Pisa) and Yu. Gurevich (Ann Arbor).*

Approximation algorithms
by *P.L. Crescenzi (Florence), J. Díaz (Barcelona), and A. Marchetti-Spaccamela (Rome).*

Quantum logic and quantum computing
by *C.H. Bennett (IBM Watson, Yorktown Height) and K. Svozil (Wien).*

The Theorema system: An introduction with demos
by *B. Buchberger and T. Jebelan (RISC – Linz).*

For additional information see `http://www.fi.muni.cz/mfcs98/`