

:= SOFSEM 2009: 35th Conference on
Current Trends in Theory and Practice of Computer Science

CALL FOR PAPERS

January 24-30, 2009, Hotel Arnika, Špindlerův Mlýn, Czech Republic
<http://www.sofsem.cz>

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SOFSEM (SOFTware SEMinar) is an annual international conference devoted to the theory and practice of Computer Science. Its aim is to get together professionals from academia and industry working in various areas of Computer Science. Proceedings containing the invited and contributed papers will be published in Lecture Notes in Computer Science by Springer Verlag.

The conference program consists of a number of Invited Talks, given by prominent researchers, Contributed Talks selected by the Program Committee from submitted papers and the Student Research Forum.

SOFSEM is organized in parallel tracks giving a unique opportunity to quickly obtain a representative overview of the areas that are selected as the topics of the year. Following the conference tradition, one of the tracks is devoted to Foundations of Computer Science, and SOFSEM 2009 offers three other tracks: Theory and Practice of Software Services, Game Theoretic Aspects of E-commerce, and Techniques and Tools for Formal Verification.

SOFSEM provides an ideal framework for discussions and meetings, as well as establishing personal contacts. In order to help people socialize and exchange new ideas, SOFSEM is organized as a single-building-conference. In 2009 accommodation for all participants and full-board meals are located together with all lecture rooms in Arnika Hotel, Špindlerův Mlýn, Czech Republic. SOFSEM is especially suited for young computer scientists.

Invited Speakers

The invited speakers for SOFSEM will include:

- Christian Attiogbé
(University of Nantes, France)
- Christel Baier
(University of Bonn, Germany)
- Josh Berdine
(Microsoft Research, Cambridge, UK)
- Nicole Immorlica
(Northwestern University, USA)
- Radovan Janeček
(BTO, HP Software)
- Marcin Jurdzinski
(University of Warwick, UK)
- Giuseppe Longo
(Ecole Normale Supérieure, Paris, France)
- David Parkes
(Harvard University, USA)

Conference Tracks

For the SOFSEM 2009 the following four tracks have been chosen:

- Foundations of Computer Science
Chair: Catuscia Palamidessi (Paris, France)
Co-chair: Frank Valencia (Paris, France)
- Theory and Practice of Software Services
Chair: Petr Tůma (Prague, Czech Republic)
- Game Theoretic Aspects of e-commerce
Chair: Peter Bro Miltersen (Aarhus, Denmark)
- Techniques and Tools for Formal Verification
Chair: Antonín Kučera (Brno, Czech Republic)

Moreover, for students, there is the

- Student Research Forum
Chair: Mária Bielíková, (Bratislava, Slovakia)

Foundations of Computer Science

Track chair: Catuscia Palamidessi (Paris, France)

Track co-chair: Frank Valencia (Paris, France)

The track is devoted to the recognized core areas forming the heart of computer science, and covering many different fields. Contributions are typically distinguished by an emphasis on mathematical background techniques, but quite often with significant impact on practical applications and systems. In other words, contributions that illustrate the value of fundamental research for applications are especially welcome. Such contributions have traditionally received a lot of attention at SOFSEM conferences, since its birth in 1974.

The list of topics includes (but is not limited to):

- algorithms and data structures including sequential, parallel, distributed, approximation, and number-theoretic algorithms
- automata theory and languages
- complexity theory, both computational and structural
- foundations of security
- concurrency theory
- quantitative aspects of computing
- discrete mathematics related to computer science
- grammars and formal models
- program semantics, logic, and verification

Program Committee

Luca Aceto	(Reykjavik University, Iceland)
Frank de Boer	(Leiden University, The Netherlands)
Roberto Bruni	(University of Pisa, Italy)
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Pierpaolo Degano	(University of Pisa, Italy)
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Thore Husfeldt	(IT University of Copenhagen, Denmark and Lund University, Sweden)
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Stephan Merz	(INRIA Nancy-Grand Est, France)
Mike Mislove	(Tulane University, USA)
Catuscia Palamidessi	(INRIA Saclay - le-de-France and cole Polytechnique, France, co-chair)
Wojciech Penczek	(IPI PAN and University of Podlasie, Poland)
Riccardo Pucella	(Northeastern University, USA)
Branislav Rován	(Comenius University, Slovakia)
Geoffrey Smith	(Florida International University , USA)
Jiri Srba	(University of Aalborg, Denmark)
Frank Valencia	(CNRS and cole Polytechnique, France, co-chair)
Igor Walukiewicz	(Universit de Bordeaux, France)
Jiří Wiedermann	(Academy of Sciences, Czech Republic)
Filip Zelezny	(Czech Technical University in Prague, Czech Republic)

Theory and Practice of Software Services

Track chair: Petr Tůma (Prague, Czech Republic)

The track aims at the broad area of software services, inviting submissions touching both theoretical topics, such as service modeling, service composition, ontologies and service description, and practical topics, such as software engineering for software services, service oriented middleware, service standards and experience reports.

The list of topics includes (but is not limited to):

- software engineering of service oriented systems
- formal methods for service oriented architectures
- service ontologies, semantic service description
- process modeling for service architectures
- service orchestration and coordination
- quality of service
- service negotiation and SLA
- service discovery and management
- support for dynamic binding of services
- platform specific services (web services, ESB, GRID, MANET, etc.)
- middleware for service oriented architectures
- security and trust issues in services
- business models for service architectures
- emerging service standards (W3C, OASIS, UN/CEFACT, etc.)
- convergence of services and other technologies (components, semantic web, etc.)
- experience reports

Program Committee

Marco Aiello	(University of Groningen, Netherlands)
Grigoris Antoniou	(University of Crete & FORTH, Greece)
Achim Baier	(Itemis, Germany)
Walter Binder	(University of Lugano, Switzerland)
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Dumitru Roman	(University of Innsbruck, Austria)
Santosh Shrivastava	(University of Newcastle upon Tyne, United Kingdom)
Bernhard Steffen	(University of Dortmund, Germany)
Jos Trienekens	(University of Technology Eindhoven, Netherlands)
Petr Tůma	(Charles University, Czech Republic, chair)
Jian Yang	(Macquarie University, Australia)
Christian Zirpins	(University of Karlsruhe, Germany)

Game Theoretic Aspects of E-commerce

Track chair: Peter Bro Miltersen (Aarhus, Denmark)

The track focuses on game theoretic aspects of e-commerce. Theoretical contributions, empirical studies, and studies of the application of the theory to industry are all relevant.

The list of topics includes (but is not limited to):

- automated and algorithmic mechanism design
- computational pricing
- auction theory geared towards e-commerce, such as auctions for digital goods, sponsored search auctions and combinatorial auctions
- game theoretic aspects of trading agent systems
- game theoretic aspects of networks and network formation
- game theoretic aspects of cryptographic protocols

Program Committee

Arne Andersson	(Uppsala University and Trade Extensions, Sweden)
Felix Brandt	(University of Munich, Germany)
Giorgos Christodoulou	(MPII Saarbruecken, Germany)
Artur Czumaj	(DIMAP, University of Warwick, UK)
Edith Elkind	(University of Southampton, UK)
Rica Gonen	(Yahoo! Research, USA)
Jason Hartline	(Northwestern, USA)
Kamal Jain	(Microsoft Research, USA)
Vangelis Markakis	(CWI, The Netherlands)
Peter Bro Miltersen	(University of Aarhus, Denmark, chair)
Martin Pal	(Google, USA)
David Parkes	(Harvard, USA)
Paolo Penna	(Universita di Salerno, Italy)
Carmine Ventre	(University of Liverpool, UK)

Techniques and Tools for Formal Verification

Track chair: Antonín Kučera (Brno, Czech Republic)

The track is devoted to both theoretical and practical aspects of formal verification of computer systems. A special emphasis is put on automatic analysis and verification of software, although the scope of the track is open to all topics in formal verification. Papers describing new software tools, new features of the existing tools, or reporting about successful applications of the existing tools to real-world problems (especially in the industrial setting) are also welcome.

The list of topics includes (but is not limited to):

- formal models (process calculi, Petri nets, timed automata, message sequence charts, hybrid systems, domain theoretic models, probabilistic systems, etc.)
- verification techniques (model checking, equivalence checking, abstract interpretation, race detection, static analysis, testing and run time analysis, theorem proving, true concurrency techniques, symbolic representation techniques, etc.)
- specification languages (temporal logics, semantic equivalences and preorders, etc.)
- software tools for automatic analysis, verification, and validation of computer systems (including case studies)

Program Committee

Patricia Bouyer	(LSV, ENS de Cachan, France)
Javier Esparza	(TU Munchen, Germany)
Jan Friso Groote	(Eindhoven University of Technology, The Netherlands)
Keijo Heljanko	(Helsinki University of Technology, Finland)
Thomas Henzinger	(EPFL Lausanne, Switzerland)
Gabriel Juhás	(Slovak University of Technology in Bratislava, Slovak Republic)
Marta Kwiatkowska	(Oxford University, UK)
Antonín Kučera	(Masaryk University, Czech Republic, chair)
Viktor Kuncak	(EPFL Lausanne, Switzerland)
Kim Larsen	(Aalborg University, Denmark)
Madhavan Mukund	(Chennai Mathematical Institute, India)
Andreas Podelski	(University of Freiburg, Germany)
Davide Sangiorgi	(University of Bologna, Italy)
Tomáš Vojnar	(Brno University of Technology, Czech Republic)
Nobuko Yoshida	(Imperial College London, UK)

Student Research Forum

Track chair: Mária Bielíková (Bratislava, Slovakia)

An integral part of SOFSEM 2009 is the Student Research Forum. Student Research Forum is organized with the aim to publish and to discuss student projects in the field of theory and practice of Computer Science. The Forum will offer students the opportunity to receive feedback on the progress of their work, including e.g. originality and ideas for future work. Sufficient space for discussion and exchange of experience will be provided during the forum itself and will continue throughout the SOFSEM Conference. To be eligible, all authors of submitted papers must be students, except for the possible supervisor. Best student papers and best student presentations will be awarded during the conference (kindly sponsored by Profinit).

Proceedings

Following the tradition of SOFSEM, the proceedings from SOFSEM 2009, including invited and contributed papers, will be published in the Lecture Notes in Computer Science Series by Springer-Verlag. Papers from the Student Research Forum will be published in local proceedings. The target paper size is 12 pages in LNCS format. Both proceedings will be distributed at the conference.

Instructions for Authors

The length of a submission should not exceed 12 pages (possibly with an optional appendix) using the page size format of a proceedings in Lecture Notes in Computer Science (LNCS) series. Simultaneous submissions to other conferences with published proceedings are not allowed.

Conference Location

The venue of Sofsem 2009 will be OREA Hotel ARNIKA, Špindlerův Mlýn, Czech Republic. See www.sofsem.cz for further details.

Organization

Organization Committee

Filip Zavoral (chair), Charles University in Prague
Petr Tůma, Charles University in Prague
Jana Dvořáková, Charles University in Prague
Jiří Dokulil, Charles University in Prague
Milena Zeithamlová, Action M Agency

SOFSEM 2009 is organized by

Faculty of Mathematics and Physics, Charles University in Prague
Action M Agency, Prague
Czech Society for Cybernetics and Informatics
Slovak Society for Computer Science

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