



## First Announcement and Call for Papers 5<sup>th</sup> IFIP International Conference on Theoretical Computer Science (TCS-2008)

In conjunction with the 20th IFIP World Computer Congress, September 7-10, 2008, Milano, Italy

**Conference Co-Chairs:**

**Giorgio Ausiello (IT), Giancarlo Mauri (IT)**

**Programme Co-Chairs:**

**Track A: Juhani Karhumäki (FI); Track B: Luke Ong (GB)**

**Programme Committee:**

**Track A: Algorithms, Complexity & Models of Computation**

Ricardo Baeza-Yates (Santiago)

Marie-Pierre Beal (Paris)

Harry Buhrman (Amsterdam)

Xiaotie Deng (Hong Kong)

Josep Diaz (Barcelona)

Volker Diekert (Stuttgart)

Manfred Droste (Leipzig)

Ding-zhu Du (Dallas)

Juraj Hromkovic (Zurich)

Oscar Ibarra (Santa Barbara)

Pino Italiano (Rome)

Kazuo Iwama (Kyoto)

Juhani Karhumäki (Turku, chair)

Pekka Orponen (Helsinki)

George Paun (Bucharest)

Jiri Sgall (Prague)

Alexander Shen (Moscow)

Vijai Vazirani (Atlanta)

Mikhail Volkov (Ekaterinburg)

**Track B: Logic, Semantics, Specification and Verification**

Rajeev Alur (Pennsylvania)

Ulrich Berger (Swansea)

Andreas Blass (Ann Arbor)

Anuj Dawar (Cambridge)

Mariangiola Dezanì-Ciancaglini (Turin)

Gilles Dowek (Paris)

Peter Dymjter (Gothenburg)

Masami Hagiya (Tokyo)

Martin Hofmann (Munich)

Leonid Libkin (Edinburgh)

Huimin Lin (Beijing)

Stephan Merz (Nancy)

Dale Miller (Paris)

Eugenio Moggi (Genova)

Anca Muscholl (Bordeaux)

Luke Ong (Oxford, chair)

Davide Sangiorgi (Bologna)

Thomas Schwentick (Dortmund)

Thomas Streicher (Darmstadt)

P. S. Thiagarajan (Singapore)

Wolfgang Thomas (Aachen)

**Scope and Topics:**

TCS2008 will be composed of two distinct but interrelated tracks: Track A on Algorithms, Complexity and Models of Computation, and Track B on Logic, Semantics, Specification and Verification.

Suggested, but not exclusive, topics of interest include:

**Track A - Algorithms, Complexity and Models of Computation:**

Analysis and design of algorithms; Automata and formal languages; Cellular automata and systems; Combinatorial, graph and optimization algorithms; Computational learning theory; Computational complexity; Computational geometry; Cryptography; Descriptive complexity; Evolutionary and genetic computing; Experimental algorithms; Mobile computing; Molecular computing and algorithmic aspects of bioinformatics; Network computing; Neural computing; Parallel and distributed algorithms; Probabilistic and randomized algorithms; Quantum computing; Structural information and communication complexity.

**Track B - Logic, Semantics, Specification and Verification:**

Automata theory; automated deduction; constructive and non-standard logics in computer science; concurrency theory and foundations of distributed and mobile computing; database theory; finite model theory; formal aspects of program analysis, foundations of hybrid and real-time systems; lambda and combinatory calculi; logical aspects of computational complexity; modal and temporal logics; model checking and verification; probabilistic systems; logics and semantics of programs; foundations of security; term rewriting; specifications; type, proof and category theory in computer science.

**Important dates:**

Authors are required to submit a title and a short abstract of about 100 words before submitting the paper. All submissions will be electronic.

**Title and abstract due: 8 February 2008**

**Paper due: 15 February 2008**

**Notification of acceptance: 31 March 2008**

**Copyright release due: 7 April 2008**

**Camera-ready papers due: 22 April 2008**

**Submission instructions:**

Papers presenting original research are sought. The proceedings will be published by SSBM (Springer Science and Business Media). All submissions, as well as camera-ready versions, are strictly limited to 12 pages including references, in the SSBM format. They must be in English.

The instructions for preparing the papers can be downloaded from <http://www.springeronline.com/sgw/cda/frontpage/0,11855,4-40492-0-0-> or <ftp://ftp.springer.de/pub/tex/latex/ifip/>.

Only electronic submissions will be accepted, via

Track A:

<http://www.easychair.org/TCS2008-TrackA>

Track B:

<http://www.easychair.org/TCS2008-TrackB>

The results must be unpublished and not submitted for publication elsewhere, including the proceedings of other symposia or workshops. The PC chair should be informed of closely related work submitted to a conference or journal in advance of submission. One author of each accepted paper will be expected to present it at the Conference.

The submission deadlines, length limitations and formatting instructions are firm: any submission deviating from these may be rejected without further consideration.

*TCS 2008 is organized by IFIP Technical Committee 1 (Foundations of Computer Science) and IFIP WG 2.2 (Formal Descriptions of Programming Concepts) in association with SIGACT and EATCS.*