



## First Announcement and Call for Papers

# 5<sup>th</sup> IFIP International Conference on Theoretical Computer Science (TCS-2008)

Held in conjunction with the 20th IFIP  
World Computer Congress  
September 7-10, 2008, Milano, IT

### *Conference Co-Chairs:*

Giorgio Ausiello, IT  
Giancarlo Mauri, IT

### *Program Co-Chairs:*

Track A: Juhani Karhumäki, FI  
Track B: Luke Ong, GB

### *Program Committee:*

#### **Track A**

#### **Algorithms, Complexity and 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)

Vijay 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)

### **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.

#### **Paper submission**

Papers presenting original research in conference topics are being sought. The proceedings will be published by SSBM (Springer Science and Business Media). Submissions, as well as final versions, are limited to 12 pages sharp, in the final SSBM format. 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

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

Submission will be in two stages: a short abstract **8 February** and the 12-page paper on **15 February 2008**. Unprintable or overlength submissions may be rejected

Mariangiola Dezani-Ciancaglini (Turin)  
Gilles Dowek (Paris)  
Peter Dybjer (Stockholm)  
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)

### **Invited speakers**

#### **Track A**

Grzegorz Rozenberg  
Tim Roughgarden  
Antonio Restivo

#### **Track B**

Javier Esparza  
Thomas Ehrhard  
Luca Cardelli

without consideration of their merits. The results of the paper must be unpublished and not submitted for publication elsewhere, including journals and the proceedings of other symposia or workshops. Authors will be notified of acceptance or rejection via e-mail by **31 March**. Full versions of accepted papers (camera-ready) must be written in English, and will be due by **22 April 2008**. One author of each accepted paper should present it at the conference.

**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**

### **Submission should be made via:**

Track A:

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

Track B:

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

### **IMPORTANT DATES:**

<b>8 February 2008</b>	<b>Abstract Submission</b>
<b>15 February 2008</b>	<b>Deadline for submission of papers</b>
<b>31 March 2008</b>	<b>Notification of acceptance</b>
<b>7 April 2008</b>	<b>Copyright release submitted</b>
<b>22 April 2008</b>	<b>Submission of camera-ready copy</b>