



# World Computer Congress 2010

International Federation for Information Processing  
Brisbane Convention & Exhibition Centre, Australia

**20-23 September 2010**

[www.wcc2010.com](http://www.wcc2010.com)



Call for papers

## 6th IFIP International Conference on Theoretical Computer Science

[www.wcc2010.com/TCS2010](http://www.wcc2010.com/TCS2010)



Value IT

### Conference topics

**TCS 2010** 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. B

Suggested, but not exclusive, topics of interest include:

Track A - Algorithms, Complexity and Models of Computation:  
algorithmic information theory  
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.

#### Conference Co-Chairs

James Harland (AU)

Barry Jay (AU)

#### Programme Co-Chairs

Track A: Cristian S. Calude (NZ)

Track B: Vladimiro Sassone (GB)

#### Programme Committee

Track A: Algorithms, Complexity & Models of Computation

Valérie Berthé (Montpellier, F)

Cristian S. Calude (Auckland, NZ; chair)

Cezar Campeanu (Charlottetown, CAN)

S. Barry Cooper (Leeds, UK)

Michael J. Dinneen (Auckland, NZ)

Rod Downey (Victoria, NZ)

Cunsheng Ding (Hong Kong, HG)

Graham Farr (Melbourne, AU)

Joachim Gudmundsson (Alexandria, AU)

Lane A. Hemaspaandra (Rochester, USA)

Oscar H. Ibarra (Santa Barbara, USA)

Masami Ito (Kyoto, JP)

Alexander Shen (Marseille, F)

Ludwig Staiger (Halle, D)

Frank Stephan (Singapore, SG)

Ileana Streinu (Northampton, USA)

Kohtaro Tadaki (Tokyo, JP)

Vincent Vajnovszki (Dijon, F)

Taso Viglas (Sydney, AU)

Klaus Wagner (Wuerzburg, D)

Damien Woods (Seville, S)

Sheng Yu (London, Ont., CAN)

Track B: Logic, Semantics, Specification and Verification

Stephen L Bloom (Stevens Inst, USA)

Roberto Bruni (Pisa, I)

Kostas Chatzikokolakis (CWI, NL)

Corina Cirstea (Southampton, UK)

Veronique Cortier (CNRS Loria, F)

Mariangiola Dezani (Turin, I)

Rob van Glabbeek (NICTA & UNSW, AU & Stanford, USA)

Atsushi Igarashi (Kyoto, JP)

Alan Jeffrey (Bell Labs, USA)

He Jifeng (Shanghai, CN)

Bartek Klin (Cambridge, UK & Warsaw, PL)

Barbara Koenig (Duisburg, D)

Dexter Kozen (Cornell, USA)

Marta Kwiatkowska (Oxford, UK)

Huimin Lin (Beijing, CN)

Dale Miller (Ecole Polytechnique, F)

Carroll Morgan (UNSW, AU)

Doron Peled (Bar Ilan, IL)

Sabina Rossi (Venice, I)

Vladimiro Sassone (Southampton, UK; chair)

Thomas Schwentick (TU Dortmund, D)

Andrzej Tarlecki (Warsaw, PL)

Yde Venema (Amsterdam, NL)

*TCS 2010 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.*

# Important dates

Title and abstract due:	February 12, 2010
Paper due:	February 19, 2010
Notification of acceptance:	April 30, 2010
Copyright release due:	May 7, 2010
Camera-ready copies:	May 15, 2010

## Instructions for paper submission

- Authors are required to submit a title and a short abstract of about 100 words before submitting the paper. All submissions will be electronic.
  - Papers presenting original research are sought. 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.
  - Accepted papers will be presented at the conference and published in the IFIP AICT (Advances in Information and •Papers presenting original research are sought. 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
  - Papers must be written in English; they should be at most 15 pages in total, including bibliography and well-marked appendices. Papers should be intelligible without appendices, if any.
  - At least one author of each accepted paper must register for the conference and present the paper. Inclusion of the paper will •Submitted and accepted papers must follow the publisher's guidelines for the IFIP AICT Series ([www.springer.com/series/6102](http://www.springer.com/series/6102), Author templates, Manuscript preparation in LaTeX only).
  - At least one author of each accepted paper must register for the congress and present the paper. Inclusion of the paper will be dependent upon one registration for the paper. One author of each accepted paper will be expected to present it at the Conference.
  - Only electronic submissions will be accepted, via
  - Track A: [www.easychair.org/TCS2010-TrackA](http://www.easychair.org/TCS2010-TrackA)
  - Track B: [www.easychair.org/TCS2010-TrackB](http://www.easychair.org/TCS2010-TrackB)
  - The submission deadlines, length limitations and formatting instructions are firm: any submission deviating from these may be rejected without further consideration.
-

# The Congress

The World Computer Congress (WCC2010) will bring together IT research and industry sectors in one event. The congress will combine 18 IFIP conferences with partner conferences from other international and regional, specialist IT organisations.

The conference content will be presented in eight program streams. Delegates may attend any of the participating conference, industry or partner events as well as networking, social, technical tours and certification courses offered at the congress.



Deliver IT

- Wireless Communications and Information Technology in Developing Countries (WCITD 2010)
  - Biologically-Inspired Collaborative Computing (BICC 2010)
  - Distributed and Parallel Embedded Systems (DIPES 2010)
  - Artificial Intelligence in Theory and Practice (IFIP AI 2010)
  - Network of the Future (NF)
  - Enterprise Architecture, Integration, Interoperability and Networking (EAI2N)
  - Human Choice and Computers International Conference (HCC9 2010)
- Track 2: Virtual Technologies and Social Shaping



Trust IT

- International Information Security Conference (SEC 2010)
  - Critical Information Infrastructure Protection (CIP)
  - Human Choice and Computers International Conference (HCC9 2010)
- Track 3: Surveillance and Privacy



Value IT

- Theoretical Computer Science (TCS 2010)
- Human Computer Interaction (HCI 2010)



Learn IT

- Key Competencies in the Knowledge Society (KCKS 2010)
- History of Computing (HC)



Govern IT

- Global Information Systems Processes (GISP)
  - E-Government and E-Services (EGES)
  - Human Choice and Computers conference (HCC9 2010)
- Track 1: Ethics and ICT Governance



Treat IT

- E-Health (EHEALTH)



Sustain IT

- Human Choice and Computers International Conference (HCC9 2010)
- Track 4: ICT and Sustainable Development



Play IT

- Entertainment Computing Symposium (ECS 2010)