

Call For Papers

The 3rd Workshop on Theory of Quantum Computation, Communication, and Cryptography

TQC 2008

January 30 - February 1, 2008
The University of Tokyo, Tokyo, Japan



General Information:

Quantum computation, quantum communication, and quantum cryptography are subfields of quantum information processing, which is a new interdisciplinary field of information science and quantum mechanics. TQC 2008 focuses on *theoretical aspects* of the subfields. The objective of the workshop is to bring together researchers in the subfields so that they can interact with each other and share problems and recent discoveries. The workshop will be held from January 30 to February 1, 2008. It will consist of invited talks, contributed talks and a poster session.

Scope:

The scope of the workshop includes, but is not limited to: quantum algorithms, quantum computation models, quantum complexity theory, simulation of quantum systems, quantum programming languages, quantum cryptography, quantum communication, quantum estimation, quantum measurement, quantum tomography, completely positive maps, decoherence, quantum noise, quantum coding theory, fault-tolerant quantum computing, entanglement theory, quantum teleportation

Paper Submission:

A submission for a contributed talk must not exceed 10 pages using at least 11-point fonts. If the authors believe that more details are essential to substantiate the main claims, they may include a clearly marked appendix that will be read at the discretion of the program committee. Simultaneous submission of papers to any other conference with published proceedings or submitting previously published papers is not allowed.

A submission for a poster presentation must be no longer than 2 pages using at least 11-point fonts. A submission that is not selected for a contributed talk may be invited for a poster presentation.

All submissions are required to be submitted electronically in postscript or pdf formats. Detailed information about the submission format and the submission procedure will be available on the conference web page (<http://www.brl.ntt.co.jp/tqc/2008/index.html>) in September 2007.

Post Proceedings:

A selection of accepted papers for oral presentations will be published in the post-proceedings by Springer in the Lecture Notes in Computer Science series.



Invited Speakers:

Andrew Childs (IQC, Waterloo)
Ignacio Cirac (MPQ, Garching)
Nilanjana Datta (Cambridge)
Hirotada Kobayashi (NII, Tokyo)
Renato Renner (ETH, Zurich)
(in alphabetical order)

Program Committee:

Michele Mosca (Inst. for Quantum Computing (UW), and Perimeter Inst., Waterloo, **Chair**)
Richard Cleve (Inst. for Quantum Computing (UW), and Perimeter Inst., Waterloo)
Masahito Hayashi (JST ERATO-SORST/Tohoku Univ.)
Peter Høyer (Univ. of Calgary)
Hiroshi Imai (Univ. of Tokyo/JST ERATO-SORST)
Nobuyuki Imoto (Osaka Univ.)
Kazuo Iwama (Kyoto Univ.)
Richard Jozsa (Univ. of Bristol)
Yasuhito Kawano (NTT)
Takeshi Koshihara (Saitama Univ.)
Hoi-Kwong Lo (Univ. of Toronto)
Igor L. Markov (Univ. of Michigan)
Mio Murao (Univ. of Tokyo)
Tatsuaki Okamoto (NTT)
Masanao Ozawa (Tohoku Univ.)
Adam Smith (Pennsylvania State Univ.)
Barbara Terhal (IBM Watson Research Center)
Guifre Vidal (Univ. of Queensland)
Shigeru Yamashita (Nara Institute of Science and Technology)

Organizing Committee:

Yasuhito Kawano (NTT, **Chair**)
Go Kato (NTT)
Yumi Nakajima (NTT)
Yasuhiro Takahashi (NTT)
Seiichiro Tani (NTT/JST ERATO-SORST)

Important Dates:

Submission deadline: September 30, 2007
Notification of acceptance/rejection: November 30, 2007
Final version: December 20, 2007

Conference web site:

<http://www.brl.ntt.co.jp/tqc/2008/index.html>

Contact Information:

tqc@theory.brl.ntt.co.jp
TQC Organizing Committee

