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QUANTUM INFORMATION AND COMPUTATION WEB-CORNER

(http://www.rinton.com/journals/qic-webcorner.html)

In this journal, you will not only find articles on quantum information and computation, but we also wish to provide a guide to web pages related to the subject. The Internet has proved an invaluable resource of (classical) information, without which progress would have been significantly slower. The prime example and first stop for every quantum information scientist is of course the quant-ph archive at xxx.lanl.gov/archive/quant-ph. Here, we will list those other, lesser known pages, which are nevertheless helpful to our audience, whether they refer to lecture notes, to monographs and tutorials, or to contact information for other research groups and conference sites.

Every issue, this corner of the journal will offer a selection of web sites and updates on quantum information and computation. However, to maintain this page we will need your help. If you encounter an interesting page, a dead link or if you wish to advertise a conference, monograph or group which has a web page, please contact the editor for this corner, Pieter Kok (pieter@informatics.bangor.ac.uk). This web-corner is also online in hypertext (with live links), and can be reached via www.rinton.com.

In this issue, the corner is divided into four parts: monographs and lecture notes, shorter expositions, groups and conferences. In future issues we will list additions the the web-corner and updates on pages. The online version will accumulate all those web sites mentioned in the journal version.

- **Monographs, Lecture Notes and Tutorials**
  This section lists sites which present self-contained texts on quantum information and computation or related areas. They can be, for example, lecture notes or books.
  - http://www.theory.caltech.edu/people/preskill/ph219/
    Quantum Computation lecture notes by John Preskill (Caltech), including course description, requirements, references, overview, homework and other useful links.
  - http://www.cs.berkeley.edu/~vazirani/quantum.html
    Lecture notes on quantum computation by Umesh Vazirani (Berkeley, autumn 2000), including homework problem sets and a few useful links to other pages.
  - http://saturn.sees.bangor.ac.uk/~schmuel/comp/comp.html
    Quantum computation: a tutorial, by Samuel L. Braunstein (Bangor), including classical universal machines and logic gates, logic gates for quantum bits, quantum parallelism and factoring numbers.
  - http://www.brics.dk//NS/96/1/BRICS-NS-96-1/BRICS-NS-96-1.html
    Quantum Computation mini-course by André Berthiaume, including quantum complexity and factoring.

- **Expositions and other Relevant Web Sites**
  Many sites offer descriptions of aspects of quantum information, but do not quite fit in the previous section. We include this special section for all those orphan pages which are often beautiful, informative and funny.

- http://p23.lanl.gov/Quantum/quantum.html
  Quantum Information at Los Alamos National Laboratory (not the archive). Including cryptography, people in the LANL quantum information team, papers, humour, tutorials and many useful links.
- http://www.research.ibm.com/people/b/bennetc/housetalk.htm
  General Talk on Quantum Information, by Charles H. Bennett, (September 2000).
- http://info.uibk.ac.at/c/c7/c704/qo/photon/_teleport/index.html
  The Innsbruck quantum teleportation experiment explained.
- http://www.cco.caltech.edu/~qoptics/teleport.html
  The Caltech quantum teleportation experiment explained.
- http://www.qubit.org/resource/seminars.html
  Oxford Seminar notes (1998).
- http://saturn.sees.bangor.ac.uk/~schmuel/tport.html
  A 'fun talk' on teleportation by Samuel L. Braunstein (Bangor).
- http://quickreviews.org/
  Quick Reviews for Quantum Computation and Information, maintained by Daniel Gottesman.

- **Research Groups, Consortia and Companies**
  Perhaps this is the most important section of all: how to find those groups which work on the same problem as you do. It is important that this part is as complete as possible, and regularly updated. For this we need your help. If you do not find your group here, please contact the editor.

  - http://www.maths.bris.ac.uk/QCIG/
    University of Bristol Quantum Computation and Information Group. Lists members, seminars and publications.
  - http://theory.caltech.edu/~quic/index.html
    Quantum Information and Computation at Caltech-MIT-USC.
  - http://www.research.ibm.com/quantuminfo/
    Quantum Information and Information Physics at IBM Research Yorktown, including links and an introductory presentation on Quantum Information.
  - http://info.uibk.ac.at/c/c7/c704/qo/photon/
    The Innsbruck Photon Laboratories. Including descriptions of many single-photon and entangled-photon experiments.
  - http://bozon.uibk.ac.at/qo/
    Center for quantum optics and quantum information at Innsbruck, including paper abstracts.
  - http://www.lsr.ph.ic.ac.uk/TQO/index.html
    The Theoretical Quantum Optics group at Imperial College, London. Contains descriptions of the research with some recent publications and a list of the group members.
  - http://qso.lanl.gov/qc/
    Quantum Computation/Cryptography at Los Alamos, including online papers.
  - http://www.magiqtech.com/
    Home page of one of the first quantum computing companies, including a list of employees and associates.
  - http://www.iro.umontreal.ca/labs/theorique/index.html.en
    Laboratory for theoretical and quantum computing, Montreal.

- http://www.qubit.org/
  Home page of the centre of quantum computation in Oxford.
- http://squint.stanford.edu/qc/
  The Stanford-Berkeley-MIT-IBM Quantum Computation Research Project, including mostly NMR related quantum computation.
- http://www.quantum.univie.ac.at/
  Quantum experiments and the foundations of physics, Vienna (A. Zeilinger).

- **Conferences**
  This section contains a list of conferences related to quantum information and computation. The web site also contains links to past conferences, as this might be useful for future reference.
  - http://www.qci.jst.go.jp/eqis/
    Erato workshop on quantum information science, Tokyo, Japan.
    September 6-8, 2001.
  - http://webcesid.fisica.unimi.it/~congressi
    Mysteries, Puzzles and Paradoxes in Quantum Mechanics, IV edition, Garda Lake, Italy.
    August 26-September 1, 2001.
  - http://confer.uj.edu.pl/bell.workshop/
    NATO Advanced Research Workshop on Modality, Probability, and Bell's Theorems, Cracow, Poland.
    August 19-24, 2001.
  - http://scotty.quantum.physik.uni-muenchen.de/explore/
    International Conference "Exploring Quantum Physics", Island San Servolo, Venice, Italy.
    August 19-22, 2001.
  - http://www.sif.it/sif/sif/varenna/2001-course-2.html
    Experimental Quantum Computation and Information, International School of Physics "Enrico Fermi", Varenna, Italy.
    July, 17-27, 2001.
  - http://iftia6.univ.gda.pl/qit/
    Quantum Information: Theory, Experiment and Perspectives, Gdansk, Poland.
    July 10-18, 2001.
  - http://www.erim.org/qas2001/
    Quantum applications symposium, University of Michigan, USA.
    July 1-3, 2001.

Please send feedback, suggestions and updates to:
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