

**FOR IMMEDIATE RELEASE**

**Spotlight on Quantum Cryptography – New Journal of Physics Sheds Some Light**

**WATERLOO, ON, June 17, 2009** – A guest editor on a recent issue of the New Journal of Physics, the Institute for Quantum Computing's (IQC) Norbert Lütkenhaus explored the recent developments in quantum cryptography technology in an editorial written jointly with Andrew Shields (Toshiba Research).

Quantum cryptography and quantum key distribution (QKD) technologies are becoming more widely secured tools for cryptographic services. Recent developments have uncovered a substantial increase in the secure bit rate of QKD, and its extension to ever longer fibre- and air-based links and the emergence of metro-scale trusted networks. Numerous start-ups and recognized companies are further exploring this field with the objective of global-scale communications using quantum repeaters or Earth-satellite links.

Currently, IQC has a strong active group in QKD technologies at its location at the University of Waterloo that offers a unique opportunity to link researchers with internationally leading expertise in classical cryptography, and in experimental and theoretical quantum cryptography. IQC is therefore one of the world-wide leading research centres serving as a contact point to industrial partners who hold interest in quantum technology.

The full editorial, "Focus on Quantum Cryptography: Theory and Practice" is available on the New Journal of Physics website at: <http://www.iop.org/EJ/abstract/1367-2630/11/4/045005>

For more information on IQC's current QKD prototype, please visit IQC's website at: [http://www.iqc.ca/laboratories/peg/free\\_space.php](http://www.iqc.ca/laboratories/peg/free_space.php)

**About IQC:**

Founded in 2002, the mission of the Institute for Quantum Computing (IQC) is to aggressively explore and advance the application of quantum mechanical systems to a vast array of relevant information processing techniques.

A part of the University of Waterloo, IQC creates a truly unique environment that fosters cutting-edge research and collaboration between researchers in the areas of computer, engineering, mathematical and physical sciences.

At the time of this release, IQC has 17 faculty members, 20 postdoctoral fellows and over 73 students and research assistants, as well as a support staff of 10.

###

To find out more about the Institute for Quantum Computing, please visit [www.iqc.ca](http://www.iqc.ca)

Contact:

Institute for Quantum Computing

Meghan Huras

Street - 475 Wes Graham Way

Mailing - 200 University Avenue West

Waterloo ON N2L 3G1 CANADA

Ph. +1.519.888.4567x36739

Fx. +1.519.888.7610

[mhuras \[at\] iqc \[dot\] ca](mailto:mhuras@iqc.ca)

[www.iqc.ca](http://www.iqc.ca)