

Press Release

For immediate release
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PicoQuant releases the fastest commercial quantum random number generator

A new development from the field of quantum physics is now available as a turn-key product. "PQRNG 150" generates provable randomness at high bit rates.

Berlin (Germany), 25 November 2011 – PicoQuant GmbH, specialist in Single Photon Counting Instrumentation has released the fastest photonic quantum random number generator available today. The "PQRNG 150" will be shown to the public for the first time at PicoQuant's booth at Photonics West exhibition in San Francisco, January 21 to 26, 2012. The new quantum random number generator provides turn-key usability, a high bit rate, up to 150 Mbits/s, delivered over USB, and long term statistical data quality. The "PQRNG 150" is based on measuring the arrival times of single photons, governed by the inherent indeterminism of quantum physics.

Randomness is an important resource in many areas of science and technology. Especially Monte Carlo simulations, secure data encryption methods as well as gaming and lotteries heavily rely on it. While randomness generated by a computer algorithm is inevitably predictable, quantum physics provides true randomness and unpredictability rooted in the laws of nature. The new quantum random number generator provides access to this ideal source of randomness at unprecedented speed. This has become possible by exploiting most recent photon timing instrumentation and state-of-the-art data processing in hardware. The random numbers delivered by the "PQRNG 150" have successfully passed the most stringent testing possible today.

With the release of "PQRNG 150" PicoQuant has made the transition from laboratory to market making another advanced quantum technology solution available to the public. Parts of the development of the generator are a result of the joint research project "KEPHOSI" funded by the German Federal Ministry of Education and Research.

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About PicoQuant

PicoQuant GmbH is a research and development company in the field of optoelectronics. The company was founded in 1996 and is based in the science and technology park Berlin-Adlershof, Germany. The company is a worldwide leader in the field of single photon counting applications. The product line includes pulsed diode lasers and LEDs, photon counting instrumentation, fluorescence lifetime spectrometers and time-resolved confocal microscopes. PicoQuant employs currently around 50 people. Since April 2008 Sales and Support in North America is handled by PicoQuant Photonics North America Inc.

Attachment

Picture of "PQRNG 150"

Caption: PicoQuant's quantum random number generator "PQRNG 150" generates provable randomness at high bit rates, up to 150 Mbits/s.

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