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**Institut für Quantenoptik und Quanteninformation**  
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## Rainer Blatt Receives International Award

**On Friday in Singapore, quantum physicist Rainer Blatt from the University of Innsbruck received the Quantum Communication Award 2016 for his pioneering experiments on quantum information processing with trapped ions and photons. Artur Ekert from the National University of Singapore was the second awardee of this prize.**

The Quantum Communication Awards 2016, awarded biannually since 1996, were presented at the International Conference on Quantum Communication, Measurement and Computing (QCMC), which took place at the National University of Singapore last week. Alongside experimental physicist Blatt, theoretical physicist Artur Ekert from the National University of Singapore and the University of Oxford was honored with this award.

Blatt was awarded for his pioneering experiments on quantum information processing. Since the mid-1990s, the experimental physicist and his research group have been working on the creation of a quantum computer. He uses ions, which are electromagnetically trapped in a vacuum chamber and cooled to almost absolute zero, as quantum bits. The use of trapped ions is the most advanced technology in quantum information processing. The physicists in Innsbruck are able to control up to 20 ions, which are then used to execute quantum computations. In just a few years' time, Blatt wants to implement quantum computations that are not feasible with classical computers today. Apart from the vision of creating a quantum computer that is universally programmable, Blatt's research work has produced many crucial building blocks needed for designing new quantum technologies, which will find their way into many applications in the next few years or decades.

Rainer Blatt is Professor of Experimental Physics at the University of Innsbruck and Director of the Institute for Quantum Optics and Quantum Information (IQOQI) of the Austrian Academy of Sciences in Innsbruck, Austria. For his research achievements he has received numerous prestigious awards, for

example the John Stewart Bell Prize, the Stern-Gerlach Medal awarded by the German Physical Society, the Humboldt Research Award and the Carl-Zeiss Research Prize.

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