

November 12, 2007  
IQOQI Media alert 8/2007



## Biggest Start-up Prize for Innsbruck Quantum Physicist

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**Tonight Dr. Otfried Gühne of the Institute for Quantum Optics and Quantum Information (IQOQI) will receive the START Prize in Vienna. This prize is the highest Austrian accolade for young scientists and is awarded annually to exceptional researchers from all disciplines. This year a total of eight young scientists were chosen for this award.**

Now there is an addition to the three START prize winners already working at the institutes of quantum physics in Innsbruck: theoretician Dr. Otfried Gühne of professor Hans Briegel's team will receive the highest Austrian award for young scientists in Vienna. This is both an appreciation of the young physicist's excellent research achievements and the financial basis for exploring promising paths further. "Our efforts to encourage young scientists is reaping rewards. The Special Research Area of the Science Fund, our institute at the Austrian Academy of Sciences and the university institutes offer ambitious young researchers an ideal working environment," said professor Rainer Blatt, Managing Director of the Institute for Quantum Optics and Quantum Information (IQOQI).

### Theories on the future of information processing

Physicist Otfried Gühne is working on problems of quantum information theory, especially quantum-mechanical entanglement of several particles. This involves new and efficient methods of detecting the entanglement in experiments and of exploring the role of solid state entanglement. Two years ago, it was Gühne whose theoretical input to the experimental research of professor Blatt's team greatly contributed to realizing the first quantum byte. Otfried Gühne was born in Münster, Germany, in 1975. He studied mathematics and physics at the University of Münster and in 2001 went on to do a doctorate at the University of Hannover in the working group of professor Maciej Lewenstein. In 2004 he got his doctorate and came to Innsbruck as Senior Scientist in the team of professor Hans Briegel at the Institute for Quantum Optics and Quantum Information (IQOQI) of the Austrian Academy of Sciences (ÖAW).



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### **Dedicated promotion of young scientists**

Each year the Ministry of Science and Research awards several START prizes to young Austrian scientists. To qualify they must be under 36, have an exceptional international scientific publication record, work independently and must have experience of a scientific environment abroad. The winners are chosen by an international jury of scientists organized by the Science Fund (FWF). Over the next six years, Innsbruck-based quantum physicist Otfried Gühne will have a budget of up to 1.2 million euros to explore promising research concepts further. The START programme aims to put top young scientists in a financial position to pursue their research over the longer term and to build up their own working group.

You can find pictures on: <http://www.iqoqi.at/media/download/>

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