



PRESS RELEASE

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**Professor Ignacio Cirac wins
6th International Quantum Communication Award**

Prof. Ignacio Cirac, managing director at Max-Planck-Institute of Quantum Optics, and Prof. Peter Zoller, University of Innsbruck, are the joint winners of the Japanese 6th International Quantum Communication Award. The prize is donated by the award committee of Tamagawa University, Tokyo, for their "great contributions on theoretical research in the field of quantum information processing".

Each winner will receive prize money of 250.000 Japanese Yen (about 2500 Euro). The Award ceremony will take place on December 2, 2006 in Tsukuba, Japan.

Professor Ignacio Cirac was born in the City of Manresa in 1965. He studied theoretical physics at the Universidad Complutense de Madrid where he received his Ph. D. in 1991. He started his scientific career at the Universidad de Castilla-La Mancha, worked as a research associate at the University of Colorado and then became head of the department of Theoretical Physics at Leopold Franzens University Innsbruck. Since 2001 he is Director at Max-Planck Institute of Quantum Optics and head of the Theory Division.

One goal of his research is to propose and analyze experiments that aim at observing and discovering interesting quantum phenomena in atomic systems. Under certain conditions e.g. atomic gases can take on exotic properties once they reach very low temperatures. Another focus is to investigate, how atomic systems can be controlled and manipulated at the quantum level using lasers. Professor Cirac is also leading in the development of a theory of Quantum Information which will be the basis of several applications in the world of communication and computation once microscopic systems can be completely controlled at the quantum level. The concepts developed in the field of Quantum Optics and Quantum Information are also applied to other fields, in particular to Condensed Matter Physics.

Professor Ignacio Cirac has been the recipient of several scientific awards. In May he was donated the prestigious Royal Spanish Prince of Asturias Award. Last year he was awarded the renowned "Quantum Electronics Prize" of the European Science Foundation and the honorary doctorate of the Universidad de Castilla-La Mancha. [O.M.]

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