



PRESS RELEASE

Prince of Asturias Award for Professor Ignacio Cirac

Professor Ignacio Cirac, Managing Director at Max Planck Institute of Quantum Optics, has won this year's Royal Spanish "Prince of Asturias Award"

On May 24 2006 the jury of the Prince of Asturias Foundation has decided to bestow Professor Ignacio Cirac the Prince of Asturias Award for Scientific and Technical Research for "his worldwide leadership in proposing and developing quantum computing". The award is endowed with 50 000 Euro, a sculpture created by the Spanish artist Joan Miró, a diploma and insignia.

The Prince of Asturias Foundation was formed in 1980 in the City of Oviedo, the capital of the Principality of Asturias, in a ceremony presided over by His Royal Highness the Prince of Asturias, Heir to the Throne of Spain, accompanied by his parents, King Juan Carlos I and Queen Sofía. The Prince of Asturias Awards symbolize the main objectives of the Foundation: to contribute to upholding and promoting all those scientific, cultural and humanistic values that form the heritage of humanity.

Since 1981 the awards are donated yearly in eight different fields: International Cooperation, Communication and Humanities, Scientific and Technical Research, Letters, Social Sciences, Sports and Concord. In the field of Technical and Scientific research the award "will be bestowed upon the individual, work group or institution whose discoveries or research represent a significant contribution to the progress of humanity in the fields of mathematics, Physics, Chemistry, Biology, Medicine, Earth and Space Sciences, as well as their related technical aspects and technologies."

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. 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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