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Press Release

**Regional government of Castilla-La Mancha contributes the  
“premio des las artes y de la ciencia” to Professor Ignacio Cirac**

**Professor Ignacio Cirac, Director at Max Planck Institute of Quantum Optics (Garching, near Munich) has been honoured with the “premio des las artes y de la ciencia” of the regional government of Castilla-La Mancha on December 10, 2008. Since 2006 this prize is given annually to selected personalities for outstanding contributions to arts, literature and science. This year also the Spanish movie director Pedro Almodovar has received this award.**

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 PhD in 1991. His bounds to the region Castilla-La Mancha go back to his early career in physics, which he began as a “Professor Titular” at the Universidad de Castilla-La Mancha where he stayed till 1996. In 2005 he was awarded the honorary doctorate of this institution. In 1996 he became Professor at 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.

At MPQ Professor Cirac investigates new possibilities of controlling the world of atoms, molecules, and photons. In his research he explores how to exploit their quantum mechanical behaviour in order to process and transmit information in more efficient and secure ways. This is a precondition for e.g. quantum computing. His group also develops theoretical tools to describe many-body quantum systems, which may lead to a better understanding of macroscopic phenomena such as superconductivity. Furthermore, Prof. Cirac and his collaborators created new theoretical tools to characterize and quantify entanglement, and they participate in the creation of a new theory of information based on quantum mechanics.

Professor Ignacio Cirac has been the recipient of several scientific awards. In 2005 he was awarded the renowned “Quantum Electronics Prize” of the European Science Foundation. In May 2006 he was the ever youngest winner of the renowned Royal Spanish Prince of Asturias Prize, and in the same year he shared the International Quantum Communication Award with Professor Peter Zoller (University of Innsbruck, Austria). *Olivia Meyer-Streng*

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