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Press Release

### Catalan Culture Award for Professor Ignacio Cirac



On April 13, 2010, Professor Ignacio Cirac, Director at the Max Planck Institute of Quantum Optics (Garching, near Munich) and leader of the Theory Division, has been honoured with the National Culture Award from Catalonia „Premi Nacional de Pensament i Cultura Científica“. Born in the Catalan city of Manresa, Prof. Cirac receives this distinction for “his pioneering work on quantum information processing, which will lead to performing calculations that cannot be solved with traditional methods.” The Catalan Culture Awards are

given annually in different cultural and scientific categories to personalities which are elected by a jury of 23 scientists, artists and journalists. By establishing this award the Catalan Arts Council, founded in March 2009, aims at promoting scientific and cultural activities, independent of government and regardless of political situations.

Professor Ignacio Cirac, born in 1965, studied theoretical physics at the Universidad Complutense de Madrid where he received his PhD in 1991. He began his career in physics as a “Professor Titular” at the Universidad de Castilla-La Mancha where he stayed till 1996. In 1996 he became Professor at the department of Theoretical Physics at Leopold Franzens University Innsbruck. Since 2001 he is Director at the Max Planck Institute of Quantum Optics and head of the Theory Division.

Besides working on quantum computation the theory group of Prof. Cirac 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 participates in the creation of a new theory of information based on quantum mechanics.

Professor Ignacio Cirac has by now become one of the most renowned scientists in the field of quantum information and quantum computation. E.g., in 2005 he was awarded the ‘Quantum Electronics Prize’ of the European Science Foundation. In May 2006 he was the youngest ever winner of the renowned ‘Royal Spanish Prince of Asturias Prize’, and in the same year he received the ‘International Quantum Communication Award’ together with Professor Peter Zoller (University of Innsbruck). In January 2009 he again shared the ‘Frontiers of Knowledge Award in Basic Sciences’ of the Spanish BBVA Foundation with Professor Peter Zoller, and a couple of months later he received the Benjamin Franklin Medal from the Franklin Institute in Philadelphia (USA), together with Peter Zoller and Dr. David Wineland (National Institute of Standards and Technology in Boulder (NIST)).

Prof. Cirac will receive the Catalan Culture Award, which is endowed with 18000 Euro, from the President of Catalonia, José Montilla, on July 3<sup>rd</sup>, 2010.

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