

## INVITATION

# Erwin Schrödinger Distinguished Lecture by Prof. Ignacio Cirac

“Quantum Physics: A source of mysteries and applications”

Tuesday, March 27, 2012, 5:30 p.m.

Festsaal der Österreichischen Akademie der Wissenschaften, Dr.-Ignaz-Seipel-Platz 2, 1010 Vienna

## Programme

### Welcome

o. Univ.-Prof. Dr. Helmut Denk, PRÄSIDENT DER  
ÖSTERREICHISCHEN AKADEMIE DER WISSENSCHAFTEN

### Introduction

Univ.-Prof. Dr. Markus Aspelmeyer, UNIVERSITÄT WIEN,  
SPRECHER DES VCQ

### 2<sup>nd</sup> lecture of the “Erwin Schrödinger Distinguished Lecture Series” on “Quantum Physics: A source of mysteries and applications”

Prof. Ignacio Cirac, DIRECTOR OF THE THEORY DIVISION  
OF THE MAX-PLANCK-INSTITUTE, GARCHING

Followed by a buffet

R.S.V.P. UNTIL MARCH 14, VIA EMAIL [VCQ@QUANTUM.AT](mailto:VCQ@QUANTUM.AT)

The “Vienna Center for Quantum Science and  
Technology” (VCQ) is a joint initiative of the University  
of Vienna, the Vienna University of Technology, and  
the Austrian Academy of Sciences, which unites  
quantum physicists of Vienna’s research institutions in  
one collaborative center.

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### The Erwin Schrödinger Distinguished Lecture Series 2<sup>nd</sup> lecture by Prof. Ignacio Cirac

on “Quantum Physics: A source of mysteries and applications”

“Quantum Physics has revolutionized the way we perceive nature. The extraordinary experimental and theoretical progress experienced during the last few years has not only established the wide validity of such a theory, but also has shown that it can be exploited to perform certain tasks which are impossible in our macroscopic world. In this talk I will superficially review the basic concepts of Quantum Physics that give rise to some of its mysteries, and explain several of the potential applications. I will also review current experimental efforts to build quantum computers, communication systems, or quantum money and credit cards.”

Prof. Dr. Ignacio Cirac has been Director of the Theory Division of the Max-Planck-Institute for Quantum Optics in Garching since December 2001. His main areas of research are the theoretical description of atomic systems interacting with light, as well as the development of a theory of Quantum Information. His work was recognized by many international prizes, he is honorary professor at the Technical University of Munich since 2002, is Associate Editor of Review of Modern Physics and a Founding Managing Editor of Quantum Information and Computation. Prof. Cirac is a correspondent member of the Spanish and Austrian Academies of Science, and Fellow of the American Physical Society. He also has an honorary doctorate from the Universities of Castilla-La Mancha and Politecnica de Catalunya.