

***P.A.M. DIRAC (1902-1984)***

Paul Adrien Maurice Dirac was born in Bristol, England, on 8 August 1902. He studied engineering in his hometown, and obtained his degree in physics and mathematics at Cambridge University where in 1932 he became Professor of Mathematics in the Lucasian Chair, which had been held by Sir Isaac Newton two centuries earlier. After his retirement, Professor Dirac went to live in Tallahassee, Florida, where he taught at Florida State University from 1971 until his death on 20 October 1984.

A Member of the Royal Society since 1930, he won the Royal Medal in 1939 and the Copley Medal in 1952. Professor Dirac shared the Nobel Prize for Physics with E. Schrödinger in 1933. He invented the well-known relativistic wave equation predicting the existence of spin and of the positron when he was only 23 years old. His further work includes his formulations of quantum field theory, statistics of fields and particles, gravitational waves and the prediction of magnetic monopoles.

Dirac first came to Trieste in June 1968 on the occasion of the International Symposium on Contemporary Physics at which he delivered a lecture on the methods of theoretical physics. After this symposium, Dirac was a guest of honour at the Centre for a month or so nearly every year. In 1972, at a symposium on The Physicists' Conception of Nature organised in honour of Dirac on the occasion of his 70th birthday, he gave a lecture on Fundamental Constants and their Development in Time. Dirac also attended the Marcel Grossman Meeting held at the Centre on the centennial of the birth of Albert Einstein in 1979.

Abdus Salam, who proposed the institution of the Dirac Medal, was Dirac's student at Cambridge and it was after having listened to Dirac's lectures that he decided to devote his life to research rather than becoming a civil servant in his country. He remained in touch with his master and became his friend.



**2009 Dirac Medal Ceremony  
21 May 2010**

## THE DIRAC MEDAL

The International Centre for Theoretical Physics awarded its first Dirac Medal in 1985. The Medal is given in honour of P.A.M. Dirac, one of the greatest physicists of the 20th century and a staunch friend of the Centre. It is awarded annually on Dirac's birthday, 8 August, to an individual or individuals who have made significant contributions to physics.

An international committee of distinguished scientists selects the winners from a list of nominated candidates. Nominations are invited from scientists working in all areas of physics. The deadline for receipt of nominations is 15 April of the relevant year.

## THE 2009 DIRAC MEDAL AND PRIZE

The 2009 Dirac Medal recognizes the joint contributions of

**Roberto Car and Michele Parrinello** in developing the *ab initio* simulation method in which they combined, elegantly and imaginatively, the quantum mechanical density functional method for the calculation of the electronic properties of matter with molecular dynamics methods for the Newtonian simulation of atomic motions. The Car-Parrinello method has had an enormous impact, joining together the fields of simulation and of electronic structure theory, and has given rise to a variety of applications well beyond condensed matter physics.

## 2009 DIRAC MEDAL AWARD CEREMONY

Professor Fernando Quevedo  
Director of the  
Abdus Salam International Centre for Theoretical Physics  
has the pleasure of inviting you to the  
2009 Dirac Medal Award Ceremony on

**Friday, 21 May 2010**

at 14.00 hrs.

in the Main Lecture Hall of the Leonardo Building

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### Programme

14.00 Welcome address by Professor Fernando Quevedo

Remarks by Professor Erio Tosatti

Presentation of the Awards

Dirac Lecture by Professor Roberto Car  
*Quantum Mechanics in a Glass of Water*

Dirac Lecture by Professor Michele Parrinello  
*Coloring the Noise or Cheating One's Way to  
Quantum Effects*

16.30 Refreshments on the Terrace of the Leonardo Building