

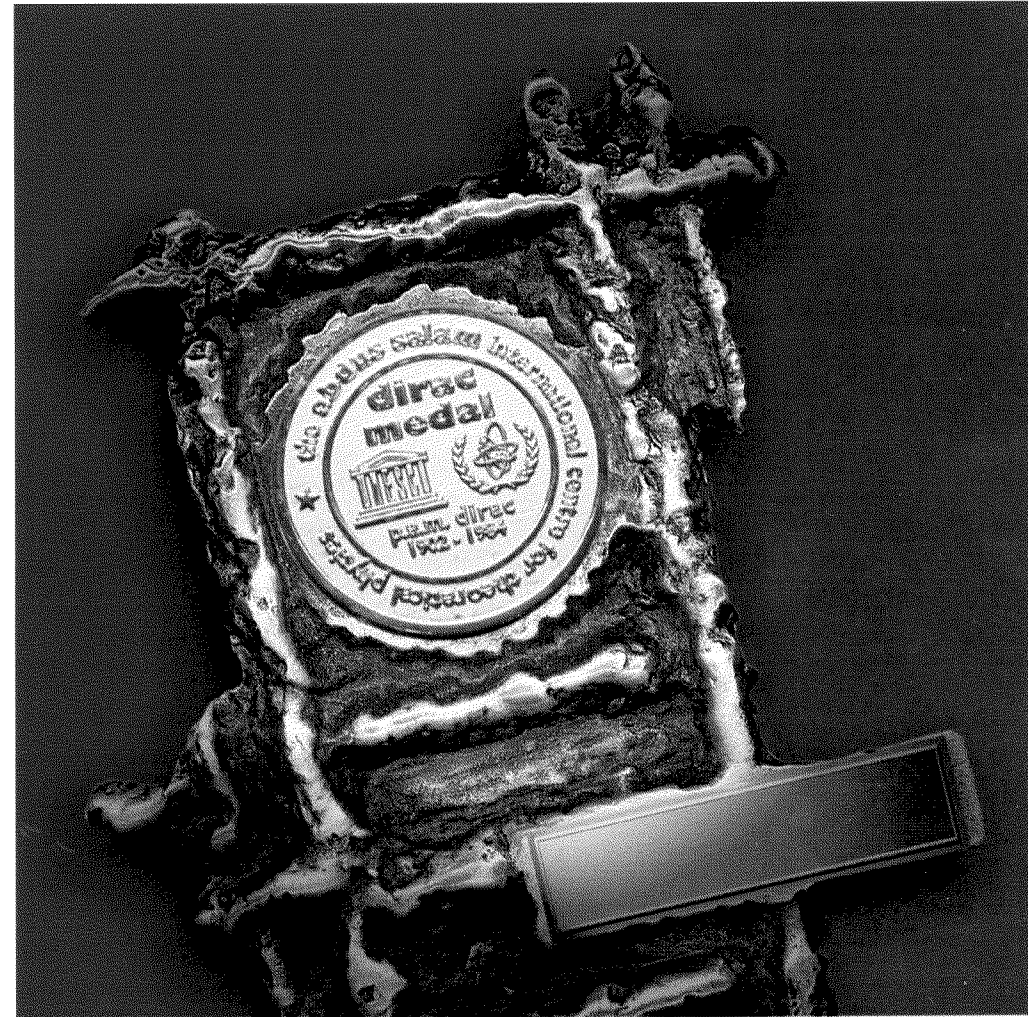
P.A.M. DIRAC (1902-1984)

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 until his death. In 1972, at a symposium on The Physicists's 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 instituted the 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.



2003 Dirac Medal Ceremony September 10, 2003

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 or mathematics.

An international committee of distinguished scientists selects the winners from a list of nominated candidates. The committee invites nominations from scientists working in physics and mathematics. The deadline for receipt of nominations is 30 April of the relevant year. The Dirac Medal is not awarded to Nobel Laureates, Fields Medallists or Wolf Foundation Prize winners.

THE 2003 DIRAC MEDAL AND PRIZE

The 2003 Dirac Medal and Prize is awarded to Robert H. Kraichnan and Vladimir E. Zakharov for their distinct contributions to the theory of turbulence, particularly the exact results and the prediction of inverse cascades, and for identifying classes of turbulence problems for which in-depth understanding has been achieved.

Kraichnan's most profound contribution has been his pioneering work on field-theoretic approaches to turbulence and other non-equilibrium systems; among his seminal contributions are the inverse cascade in two-dimensional turbulence and an exactly solvable model for scalar intermittency. Zakharov's achievements have consisted of putting the theory of wave turbulence on a firm mathematical ground by finding turbulence spectra as exact solutions, solving the stability problem, and introducing the notion of inverse and dual cascades in wave turbulence.

2003 DIRAC MEDAL AWARD CEREMONY

Professor K.R. Sreenivasan, Director of the Abdus Salam International Centre for Theoretical Physics, has the pleasure of inviting you to the 2003 Dirac Medal Award Ceremony on

Wednesday, September 10, 2003
at 15.00

in the Main Lecture Hall of the Main Building.

Programme

- 15.00 Welcome remarks by Professor K.R. Sreenivasan
- 15.15 Presentation of the award to Professor Robert H. Kraichnan and Professor Vladimir E. Zakharov
- 15.30 Dirac Lecture by Robert H. Kraichnan
Order and randomness in fully-developed turbulence
- 16.00 Dirac Lecture by Vladimir E. Zakharov
Weak-turbulent theory of ocean waves
- 16.30 Discussion session
- 17.00 Refreshments