

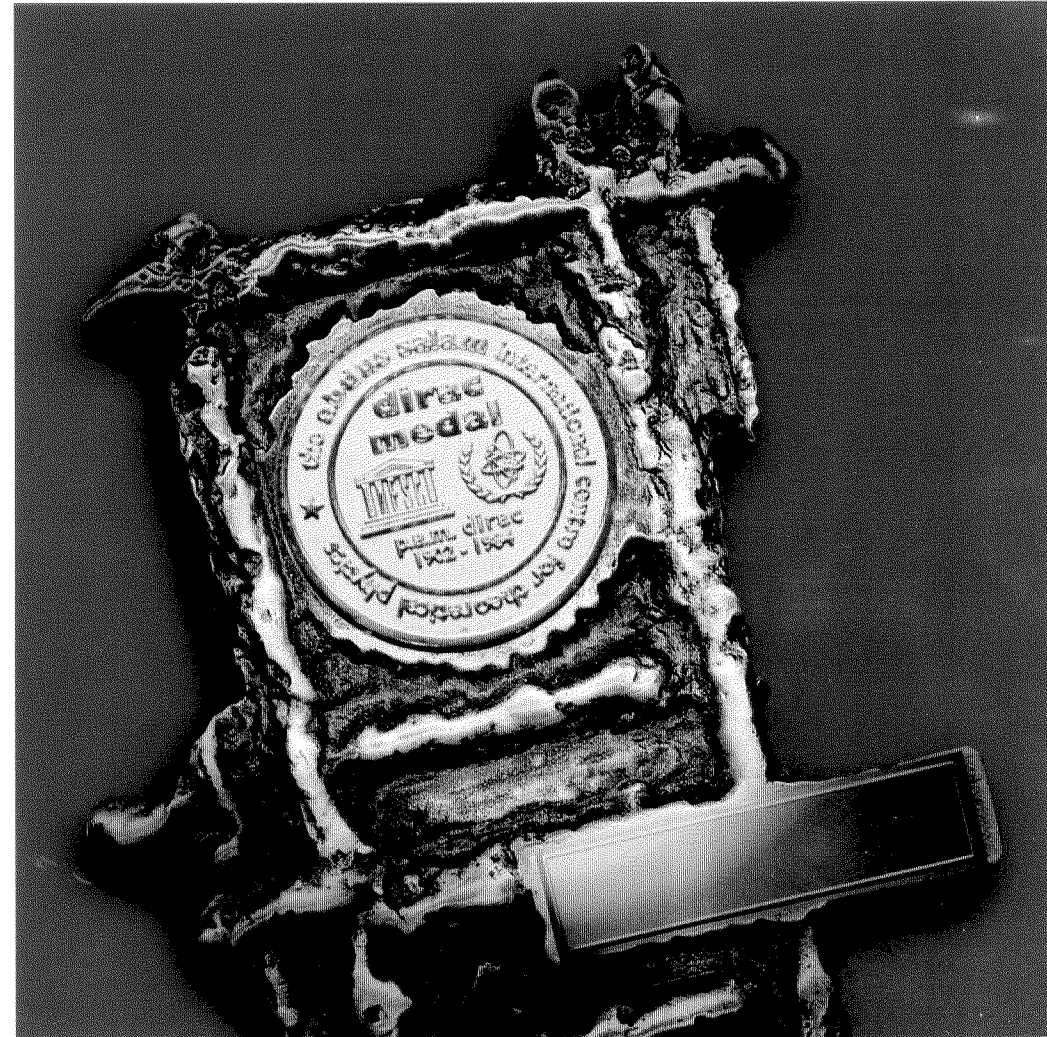
### *P.A.M. DIRAC (1902-1984)*

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'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 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.



## **Dirac Medal Ceremony**

**June 30, 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 who has made significant contributions to theoretical physics and mathematics. The Medallists also receive a prize of US\$ 5,000.

An international committee of distinguished scientists selects the winners from a list of nominated candidates. The committee invites nominations from scientists working in the fields of theoretical physics or 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 2002 DIRAC MEDAL AND PRIZE

The 2002 Dirac Medal and Prize is awarded to Alan Guth, Andrei Linde and Paul Steinhardt for the development of the concept of inflation in cosmology. Although the history of the very early universe has not been firmly established, the idea of inflation has already had notable observational successes, and it has become the paradigm for fundamental studies in cosmology.

While the possibility of an exponential expansion of the early universe had been noted before, it was Guth who realized that inflation would solve some of the major problems confronting the big bang cosmology. Difficulties with the original inflationary model were recognized by Guth and others, and were overcome with the introduction of "new" inflation by Linde and Steinhardt (with Albrecht). Linde went on to propose other promising versions of inflationary theory, such as chaotic inflation. The greatest success of inflationary theory has been in accounting for the existence of inhomogeneities in the universe and predicting their spectrum, done by Guth (with Pi), Steinhardt (with Bardeen and Turner), as well as Hawking and Starobinsky.

## 2002 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  
2002 Dirac Medal Award Ceremony on

**Monday June 30, 2003**

at 10.00

in the Main Lecture Hall of the Main Building.

\*\*\*

### Programme

- 10.00 Welcome address by Professor K.R. Sreenivasan
- 10.15 Presentation of awards to the three Dirac Medallists
- 10.30 Dirac Lecture by Alan Guth  
*The Inflationary Paradigm*
- 11.00 Dirac Lecture by Paul Steinhardt  
*Challenging the Standard Paradigm*
- 11.30 Dirac Lecture by Andrei Linde  
*Prospects of Inflationary Theory*
- 12.00 Discussion session
- 12.30 Buffet lunch

R.S.V.P.  
040 2240251 or 040 2240228  
gatti@ictp.trieste.it