

*International Centre for Theoretical Physics*

*P.A.M. Dirac Medals  
Presentation Ceremony*



*16 June 1992*

*Strada Costiera, 11  
34136 Trieste*

## *P.A.M. Dirac Medals*

The Dirac Medals of the International Centre for Theoretical Physics were instituted in 1985. These are awarded yearly, on Dirac's birthday - 8th August - for contributions to theoretical physics.

The 1985 Dirac Medals were awarded to Professor Yakov Zeldovich (Institute for Space Research, Moscow, USSR) and Professor Edward Witten (Princeton University, USA) and in 1986 to Professor Yoichiro Nambu (Enrico Fermi Institute for Nuclear Studies, Chicago University, USA) and Professor Alexander Polyakov (Landau Institute for Theoretical Physics, Moscow, USSR). In 1987, they were awarded to Professor Bryce DeWitt (University of Texas at Austin, USA) and Professor Bruno Zumino (University of California at Berkeley, USA) and in 1988 to Professor David J. Gross (Princeton University, New Jersey, USA) and to Professor Efim Samoilovich Fradkin (Lebedev Physical Institute, Moscow, USSR). The 1989 Dirac Medals were awarded to Professor Michael B. Green (Queen Mary College, University of London, UK) and Professor John H. Schwarz (California Institute of Technology, USA). The 1990 Dirac Medals were awarded to Professor Ludwig Dmitriyevich Faddeev (Steklov Mathematical Institute, Leningrad, USSR) and Professor Sidney Richard Coleman (Harvard University, Cambridge, Massachusetts, USA). The recipients of the 1991 Dirac Medal are Professor Stanley Mandelstam (University of California, Berkeley, USA) and Professor Jeffrey Goldstone (Massachusetts Institute of Technology, Cambridge, Ma., USA)

The Selection Committee includes Professors S. Lundqvist, R. Marshak, J. Schwinger, E. Witten, S. Weinberg and Abdus Salam. The Dirac Medals are not awarded to Nobel Laureates or Wolf Foundation Prize winners.

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

*Paul Adrien Maurice Dirac was born in Bristol in 1902. He studied engineering in his hometown, and obtained his degree in physics and mathematics at Cambridge University where he became professor in mathematics in 1932 in the Lucasian chair which was once of Sir Isaac Newton. After his retirement, Professor Dirac went to live in Tallahassee, Florida, where he taught at the University from 1971 until his death in 1984. A Member of the Royal Society since 1930, he won the Royal Medal in 1939 and the Copley Medal in 1952. He shared the Nobel Prize for Physics with E. Schrödinger in 1933.*

*Professor Dirac was an honoured guest at and a staunch friend of the International Centre for Theoretical Physics in Trieste.*

## *Dirac Medal 1991*

### *Stanley Mandelstam*

Professor Stanley Mandelstam is honoured:

*"in recognition of his contributions to the development of theoretical physics. His representation of the analytic properties of scattering amplitudes in the form of double dispersion relations (Mandelstam representation) is basic to the modern understanding of relativistic particle scattering and his seminal work on the quantization of string theories, exploiting their conformal properties, led to a more profound understanding of this subject. Mandelstam was among the first to apply path integral quantization methods to string theory. This work was generalized and extended by many others in the following years and now forms an integral part of the modern formulations."*

Prof. S. Mandelstam obtained his B.Sc. at the University of Witwatersrand (U.K.) in 1949 and his Ph.D. at the University of Birmingham (U.K.) in 1956. He started his career as a Research Assistant at the University of Birmingham (1956-57) and Boese Post-Doctoral Fellow at the Columbia University (1957-58). He then became Assistant Research Physicist at the University of California at Berkeley (1958-60). He was Professor of Mathematical Physics at the University of Birmingham (1960-63) and then in 1963 he became Professor of Physics at the University of California where he still teaches. He held the position of Visiting Professor at the Universities of Harvard (1966) and Paris Sud (1979-80, 1984-85). He is a Fellow of the Royal Society of London, the American Physical Society and the American Academy of Arts and Sciences. This year he has received the Dannie Heinemann prize.

**The other 1991 Dirac Medal will be awarded to Professor J. Goldstone (Massachusetts Institute of Technology, Cambridge, Ma., USA)**