

International Centre for Theoretical Physics

P.A.M. Dirac Medals

Ceremony of Presentation



23 July 1987

Strada Costiera, 11

The Dirac Medals of the International Centre for Theoretical Physics were instituted in 1985. They are awarded yearly both to a senior and to a younger physicist, on Dirac's birthday - 8th August - for contributions to theoretical physics.

The 1985 Dirac Medals of the International Centre for Theoretical Physics were awarded to Professor Yakov Zeldovich (Institute for Space Research, Moscow, USSR) and Professor Edward Witten (Princeton University, USA). In 1986, the Dirac Medals are awarded to Professor Yoichiro Nambu (Enrico Fermi Institute for Nuclear Studies, Chicago University, USA) and Alexander Polyakov (Landau Institute for Theoretical Physics, Moscow, USSR) for their important contributions to mathematical physics.

The selection Committee both for 1985 and 1986 includes Professors Abdus Salam, S. Lundqvist, R. Marshak, J. Schwinger, L. Van Hove and S. Weinberg. The Dirac Medals are not awarded to Nobel Laureates or Wolf Foundation Prize winners.

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

Professor 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 full professor in mathematics in 1932 in the same chair which had been occupied by the great Sir Isaac Newton. After his retirement, Professor Dirac went to live in Tallahassee, Florida, where he taught at the local University from 1971 until his death. He had been a visiting lecturer at the University of Wisconsin in 1929, at the University of Michigan in Summer 1929 and at Princeton University in 1931. 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.

The theoretical work by Prof. P.A.M Dirac has led to the discovery of the positive electron and, consequently, to antimatter, as well as to the prediction of the existence of monopoles, i.e. single uncoupled magnetic charges.

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

Dirac Medal 1986

Yoichiro Nambu

Professor Yoichiro Nambu is honoured

for being one of the first physicists to formulate the idea of spontaneous symmetry breaking and, in particular, chiral symmetry breaking in relativistic particle physics. His contributions to the quark model in the sixties and, later, his geometrical formulation of the dual resonance models as the dynamics of a relativistic string are of fundamental importance. The scope and intensity of current research in string theory are witness to the profundity of Nambu's contributions to particle physics.

Professor Yoichiro Nambu was born in Tokyo on 18 January 1921. He studied at the University of Tokyo where he received his B.Sc. in 1942 and his D.Sc. in 1951. He was appointed as a Professor at the Osaka City University in 1950. After two years as a Member of the Institute for Advanced Study of Princeton (1952-1954), Prof. Nambu joined the University of Chicago as a Research Associate (1954-1956) first and then as an Associate Professor (1956-1958). He has been a full Professor since 1958. He was Chairman of the Department of Physics from 1974 to 1977.

Professor Nambu is a member of the National Academy of Sciences (since 1971), American Academy of Arts and Sciences (since 1971) and an Honorary Member of the Japan Academy (since 1984). He has received the following awards: Dannie Heineman Prize for Mathematical Physics (1970), Distinguished Service Professor (University of Chicago, 1971), J. Robert Oppenheimer Prize (1976), Harry Pratt Judson Distinguished Service Professor (1977), Order of Culture awarded by the Government of Japan, United States National Medal of Science (1982) and Max Planck Medal (1985).

He is the author of 126 scientific papers.

The other Dirac Medal 1986 was given to Professor Alexander Polyakov (Landau Institute for Theoretical Physics, Moscow, USSR) on 15 November 1986.