

Professor Michael B. Green was born on 22 May, 1946. In 1964, he got an Open Scholarship at Churchill College in Cambridge, obtained a B.A. in Natural Sciences – Theoretical Physics (First class) in 1967 and a Ph.D. in Elementary Particle Theory (Cambridge) in 1970. From 1969 to 73, Professor Green held a Denman Baynes Research Studentship, Clare College, Cambridge. The Rayleigh Mathematics Prize of Cambridge University was awarded to him in 1969. He worked at the Institute of Advanced Study, Princeton, N.J., USA, in 1970-72, at Cavendish Laboratory, Cambridge, under an SRC Fellowship from 1972 to 1977 and at the Department of Theoretical Physics, Oxford, in 1977-79 under an SRC Advanced Fellowship. He became a lecturer in Physics at Queen Mary College, University of London, in 1979 and Professor of Physics at the same college in 1985. He was a visiting Associate at the California Institute of Technology, Pasadena, Ca., in 1981, 82, 84 and 85, at CERN in the summers of 1973, 76, 77, 79, 81 and 83, at the Aspen Center for Physics, Aspen, Colorado, in the summers of 1974, 78, 80, 81, 82 and 84. Prof. Green held a Nuffield Foundation Sciences Research Fellowship (1984-86) and currently holds a SERC Senior Fellowship. He will visit Caltech as a Distinguished Fairchild Scholar in 1990.

Prof. Green won the Maxwell Medal and Prize (Institute of Physics) in 1987, the William Hopkins Prize (Cambridge Philosophical Society) in 1987 and became a Fellow of the Royal Society in 1989. He is on the Editorial Board of the Journal of Mathematical Physics and on the International Advisory Committee for the Journal of Physics. He is the author of 60 research papers, 27 review articles and conference proceedings and of one book. He has lectured in many courses and workshops and has given plenary talks at about 15 major conferences.

The other Dirac Medal 1989 will be awarded to Professor John H. Schwarz (California Institute of Technology, USA) in July 1990.

International Centre for Theoretical Physics

P.A.M. Dirac Medals

Presentation Ceremony



24 April 1990

*Strada Costiera, 11
34136 Trieste*

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). The 1988 Medals were awarded to Professor David J. Gross (Princeton University, New Jersey, USA) and to Professor Efim Samoilovich Fradkin (Lebedev Physical Institute, Moscow, USSR). The recipients of the 1989 Dirac Medals are Professor Michael B. Green (Queen Mary College, University of London, UK) and Professor John H. Schwarz (California Institute of Technology, USA).

The Selection Committee includes Professors S. Lundqvist, R. Marshak, J. Schwinger, L. Van Hove, 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 1989

Michael B. Green

Professor Michael B. Green is honoured

for research in the area of elementary particles and gravitation. After making several important contributions in the initial period of research on string theory as a theory of strongly interacting particles, he continued to work in this area through the late 1970's, a time when almost everyone else had abandoned string theory. He developed the theory of superstrings in a series of classic papers written in collaboration with John Schwarz between 1979 and 1984. Such theories are candidates for unified theories of all the physical forces and elementary particles and are based on a radical modification of conventional supersymmetric field theories in which pointlike fundamental particles are replaced by Planck-length relativistic strings. In 1981, they showed that certain superstring theories are probably free of ultra-violet divergencies and in August 1984 they showed that these theories are also free of the chiral gauge anomalies that plague conventional field theories with chiral fermions. This indicated that superstring theory with a specific gauge symmetry may provide a consistent unified quantum theory of gravitation together with all the other physical forces and particles. These results led to an explosion of interest in string theory which has transformed the study of unified quantum theories of particles and their forces.