

Nobel Laureate Prof Carlo Rubbia
European Organization for Nuclear Research
CERN, Switzerland

Carlo Rubbia was born in Gorizia, Italy, on 31st March 1934. He graduated at Scuola Normale in Pisa, where he completed his University education with a thesis on Cosmic Ray Experiments. He has been working at CERN since 1961. In 1976, he suggested adapting CERN's Super Proton Synchrotron (SPS) to collide protons and antiprotons in the same ring and the world's first antiproton factory was built. The collider started running in 1981 and, in early 1983, an international team of more than 100 physicists headed by Rubbia and known as the UA1 Collaboration, detected the intermediate vector bosons. In 1984, together with Simon van der Meer, he was awarded the Nobel Prize for Physics for this discovery.



Carlo Rubbia has served as Director-General of the CERN from 1 January 1989 till December 1993. From 1970 to December 1988 Rubbia has spent one semester per year at Harvard University in Cambridge, Massachusetts, where he was Higgins Professor of Physics. He has been Full Professor of Physics at Pavia University, in Italy until December 2006.

From 1986 till 1996 he has been the President of Sincrotrone Trieste, the company in charge of building ELETTRA, one of the third-generation synchrotron radiation sources in the world, together with Berkeley and Grenoble. Construction of ELETTRA began in 1991 and was completed 1993, with the first experiment carried out in October 1993, under the leadership of Prof. Rubbia.

Since 1980 Rubbia has been one of the leaders in a collaboration effort based deep in the Gran Sasso Laboratory designed to detect any sign of decay of the proton. The experiment seeks evidence that would disprove the conventional belief whereby matter is stable. The most widely accepted version of the unified field theories predicts that protons do not last forever, but gradually decay into energy after an average lifetime of at least 10^{32} years. The same experiment, known as ICARUS and based on a new technique of electronic detection of ionizing events in ultra-pure liquid Argon, is aiming at the direct detection of the neutrinos emitted from the Sun, exploring neutrino signals of cosmic nature.

In addition to these activities, during the last fifteen years his research work has been dedicated also to the problem of Energy supply for the future, with particular focus on the development of new technologies for renewable energy sources, both solar and nuclear.

From 1999 till 2005 Carlo Rubbia has been the President of ENEA (Italian National Agency for New technologies, Energy and the Environment). During this period he has developed a new technology concentrating solar power at high temperatures, including an innovative storage system, generally known as the "Archimede" Project. He is currently the principal Scientific Advisor of the Spanish CIEMAT organization and Advisor of the Italian Minister of the Environment. He is a member of the Advisory Group on Climate Change of the European Union's President Barroso.

Honorary Degrees

- University of Geneva (Switzerland), 1983
- Carnegie Mellon University (U.S.A.), 1985
- University of Genoa (Italy), 1985
- University of Udine (Italy), 1985
- University of La Plata (Argentina), 1986
- Northwestern University (U.S.A.), 1986
- University of Camerino (Italy), 1987
- University of Chicago (U.S.A.), 1987
- Loyola University (U.S.A.), 1987
- Boston University (U.S.A.), 1988
- University of Sofia (Bulgaria), 1990
- University of Moscow (USSR), 1991
- University of Chile, Santiago, 1991
- Polytechnic University of Madrid, (Spain), 1992
- University of Padova (Italy), 1992
- Technical University of Rio de Janeiro (Brazil), 1993
- University of Trieste (Italy), 1994
- University of Oxford (England), 1994
- Catholic University of Lima, (Peru), 1994
- National University of St. Antonio Abad of Cusco, (Peru), 1994
- University of Bordeaux (France), 1998
- University of Haute Savoie (France), 1999
- St. John's University – Roma (Italy), 2003
- University of Torino (Italy), 2004
- University of Aachen (Germany), 2004

Honours:

He has received numerous honours amongst which: the "Cavaliere di Gran Croce" (Knight Grand Cross) of the Italian Republic in 1985 and the "Officier de la Légion d'Honneur" of the French Republic in 1989. At the conclusion of his mandate as Director General of CERN in 1993, he received the Polish Order of Merit.

Memberships:

- | | |
|---|---|
| ▪ The American Academy of Arts and Sciences | ▪ The Russian Academy of Sciences, Foreign Member |
| ▪ The Pontifical Academy of Sciences | ▪ The Third World Academy of Sciences |
| ▪ The Royal Society (Foreign Member) | ▪ The European Academy of Sciences |
| ▪ The Austrian Academy of Sciences | ▪ The Société Européenne de Culture |
| ▪ The Hungarian Academy of Sciences | ▪ The Accademia dei Lincei |
| ▪ The Polish Academy of Sciences, Foreign Member | ▪ The Accademia dei XL |
| ▪ The Croatian Academy of Sciences and Arts | |
| ▪ The U.S.A. National Academy of Sciences, Foreign Member | |