

Short Biography of Alfredo Ferrari

Alfredo Ferrari is presently a senior physicist at CERN, the European Organization for Particle Physics.

His present responsibilities are related to the development and maintenance of the FLUKA code, which is used at CERN for a variety of problems, including, among the others, radioprotection calculations, radionuclide inventory predictions, beam-machine interaction, detector simulations etc. He is also coordinating a team encharged with the actual studies for many of the topics listed above.

He has spent a large fraction of his carrier in Milan, as a researcher in INFN (the Italian Institute for Nuclear and Particle Physics), partecipating to several projects and experiments in the fields of particle accelerators, dosimetry, particle physics and cosmic ray experiments. He started developing the modern FLUKA code together with A.Fasso', J.Ranft, and P.R.Sala in 1989, while at INFN. The code is at present a joint venture of INFN and CERN.

In the period 1990-1998 he was a member of the ATLAS Collaboration, one of the two main detectors which will operate on the next CERN accelerator, the LHC. From 1994 he was the responsible person for ATLAS for all issues related with radiation and radiation backgrounds.

Starting from 1993 he started to collaborate with C.Rubbia on neutronics studies and later on neutrino physics. He eventually joined C.Rubbia group at CERN as senior physicist in 1998.

He is still actively involved in neutrino physics. He is a member of the ICARUS collaboration, and he has played a pivotal role in the proposal and design of the CNGS (Cern Neutrino beam to Gran Sasso) long baseline neutrino beam. He also contributed to a few seminal studies on the topic of atmospheric neutrinos.

As a byproduct of the atmospheric neutrino studies, he started to be involved with Cosmic Ray related dosimetry, both for commercial flights and for space missions. A collaboration with the University of Houston and NASA on the latter topic is in place since 1999.

He is actively involved in dosimetry issues, and in problems related with hadrontherapy, mostly from the nuclear modelling point of view.

He has authored more than 120 papers on international magazines, and he has delivered more than 20 invited talks at several international conferences and workshops.