Pier Andrea Mandò, born in Florence, 20 /08/1950.

July 1973, Master degree in Physics, magna cum laude, University of Florence. Thesis work in experimental nuclear physics, performed at the Technische Universität in Munich.

1978, Assistant Professor at the Faculty of Science of the Florence University

1985, Associate Professor of "General Physics"

2000 to present, Full Professor of General Physics, then of "Applied Physics".

Since 2016, Professor at the New York University, Florence.

June 2008 - June 2015, Director of the Florence Unit of INFN.

Teaching activity

Several basic and advanced courses for students of different branches (Physics, Mathematics, Biology, Heritage Science), University of Florence.

Courses about topics in Applied Nuclear Physics in a number of Masters of Italian Universities and in International Schools of Physics.

Tutor of several tens of master degree students in Physics and Heritage Science, and of ten PhD students in these disciplines.

Scientific activity

In the first decade after the Master degree, he worked on basic nuclear physics (spectroscopy of nuclei in the $f_{7/2}$ and $g_{9/2}$ shells). Since the mid-Eighties, he started to be increasingly involved in applications of nuclear techniques, in particular to problems concerning cultural heritage and environmental physics. A group of younger researchers was formed under his guidance; this group progressively became a reference point, at an international level, in the mentioned fields.

An almost two-decade activity in applied nuclear physics led to the formal establishment in Florence, at the beginning of the years 2000, of a dedicated laboratory of INFN (LABEC, Laboratory of nuclear techniques applied to environmental and cultural heritage problems), with the acquisition of a Tandem particle accelerator in the new, much larger premises of the scientific campus in Sesto Fiorentino near Florence. As to cultural heritage applications, with the new Tandem it was possible to also start an activity of radiocarbon dating using Accelerator Mass Spectrometry, besides further upgrading those dealing with non invasive compositional analysis of materials in works of art or of archaeological or historical interest using Ion Beam Analysis, previously developed with innovative methodologies (external beams, high-efficiency detection set-ups, external scanning ion microprobe) using a single-ended Van de Graaff accelerator in the old site of the Department of Physics. A large number of results have been achieved as to both methodological developments and in the merits of applications to case studies, getting sometimes besides scientific acknowledgement also media echo.

Besides the applications to cultural heritage, Mandò also participated to applied research in the field of the analysis of the fine particulate matter suspended in the atmosphere (PM); measuring the composition and quantity of PM pollution is an important contribution to identify its sources in order to implement properly aimed abatement policies, and to better understand the processes of global climate changes, which are also affected by PM pollution.

Mandò's interest has been constantly devoted to the development of novel methodologies and instrumentation in order to address the ever growing, and more and more complex questions raised by the end users of the techniques developed.

Thanks to these developments, he got wide acknowledgement from the international community, which is witnessed by the award, in 2009, of the IBA Europhysics Prize, which is assigned every second year by the European Physical Society to a researcher who made outstanding contributions to Applied Nuclear Science and Nuclear Methods, and Nuclear Researches in Medicine.

More recently, he has contributed to the development of innovative portable instrumentation for the analysis of materials in the field of cultural heritage. Scanning XRF (X Ray Fluorescence) systems have been designed and implemented, with the possibility of producing maps of the distribution of the different elements on paintings and other artworks, with a much increased efficiency than usual also for low-Z elements down to Na. This instrumentation extends the possibility of accurate high-quality compositional analysis also to works that cannot be brought to the laboratory.

Mandò is the author of about 120 papers on international peer-reviewed magazines, and of numerous further papers and contributions in books.

Invited speaker for plenary talks in about twenty International Conferences.

Invited by public Institutions and private associations from many Countries in the world, to give a few tens of seminars and talks, both at an advanced level and to a larger audience.

Organisation and management activities

Principal investigator in several national projects within the University and INFN, and in regional ones in the Tuscany Region.

Referee of international (European and North-American) research projects.

Member of the 5th National Scientific Committee of INFN (Technological and Interdisciplinary Research) from 1988 to 1994, and again from 2000 to 2005.

As mentioned above, from June 2008 to June 2015, Director of the Sezione di Firenze of INFN.

2009 - 2010, member of the General Evaluation Panel of CNR, heading the evaluation group of all the CNR activities of Heritage Science.

2009-2016, member of the Management Committee of the Opificio delle Pietre Dure.

In the past few years, member of the USIP Committee of the INFN national Labs in Legnaro.

In 2016, President of the National INFN Commission for the recruitment of 58 permanent researchers.

In 2018, President of the National INFN Commission for the recruitment of 25 permanent senior technologists.

In 2018, component of the Selection Committee of the Italian National Projects PRIN, for the ERC sector PE-2.

Member of International Committees (AGLAE Accelerator at the Louvre Museum, Scientific and Technical Advisory Committee of the EC-funded LIBRA and CALIBRA Projects of the NRC Demokritos in Athens), and of permanent Committees of international conferences: European Conf. on Applications of Accelerators in Research and Technology, and International Conf. on Particle Induced X ray Emission and its analytical applications.

Chairman of the 9th European Conference of Accelerators in Applied Research and Technology (Florence, September 2007, over 200 delegates); co-chairman of the 11th International Conference on Accelerator Mass Spectroscopy (Rome, September 2008, over 300 delegates); co-chairman of the International Nuclear Physics Conference (INPC13) (Florence, June 2013, over 800 delegates).

Until 2018, managing editor of the international magazine EPJ+ (The European Physics Journal Plus) published by Springer Verlag.

Member of the Accademia delle Arti del Disegno, the most ancient Italian Academy of Fine Arts.