

Ileana Iori and INFN

Emilio Chiavassa

INFN Sez. Torino

Via P.Giuria 1 10125 Torino, Italy

chiavassa@to.infn.it

INFN is the Institute that supports theoretical and experimental researches in the field of subnuclear, nuclear and astroparticle physics. The Institute was founded in 1951 and has a strict collaboration with the Italian Universities. It has two complementary types of facilities: the Divisions and the National Laboratories (LNF at Frascati, LNGS at Gran Sasso, LNL at Legnaro and LNS at Catania).

The 19 Divisions are located in the University physics departments providing a direct connection between INFN and the academic world. The researches funded by the Institute are conducted by its own employees and by University employees.

The main decisional body of the Institute is the Council of Directors, comprised of the President and the Executive Board, the Directors of the four National Laboratories, the Directors of the 19 Divisions and representatives from other institutions. Directors are elected and can belong to the academic world.

The activities are supervised by five committees: Particle Physics, Astroparticle Physics, Nuclear Physics, Theoretical Physics and Technology researches.

Ileana Iori started her Scientific activity in 1956 at CISE (Centro Informazioni Studi Esperienze) and moved definitively at the Milan University in 1967. Since then she was an Associated member of INFN, performing and leading experiments supported by the INFN Nuclear Physics Committee. Over a long period, from 1967 to 2009, she had a role of primary importance in the Nuclear Physics activities in Italy, and she was an outstanding component of the Nuclear Physics Committee.

In the years 1979 – 1982 Ileana has been elected Director of the Milan Division and became a member of the Council of Directors.

In the following there is a summary (perhaps incomplete) of her contribution to the INFN activities:

XLVIII International Winter Meeting on Nuclear Physics - BORMIO2010

Bormio, Italy

January 25–29 2010

1960 – 1980

In the sixties Ileana worked at CISE with electrostatic accelerators in the group of L. Colli and U. Facchini, obtaining important results on the cross section fluctuations predicted by T. Ericsson. Within this collaboration Ileana built a 3.5 MeV Van Der Graf accelerator. Then she studied the reaction mechanism participating to several experiments that used the Milan AVF Cyclotron with a proton beam with energy ranging from 14 MeV to 44 MeV.

1979- 1982

Ileana was elected Director of the Milan Division, one the most important INFN Divisions. The Institute was leaded by A.Zichichi, who followed A.Gigli Berzolari. These were years of great development for INFN and for the Nuclear Physics in particular. It was in fact decided to build a superconducting cyclotron that was projected in Milan and then installed at LNS. The two Nuclear Physics Laboratories (LNL and LNS) increased their scientific importance and Ileana participated to many important experiments in these National laboratories.

1980 – 1990

Working at the 16 MeV Tandem of Legnaro (the first heavy Ion Italian machine) Ileana obtained important results on dissipative processes and on fusion fission mechanism studying nuclear reactions near the Coulomb barrier. Thanks to her extraordinary capacity in projecting and developing detectors she realized very sophisticated apparatuses, leading the Milan Group. Between the realized experimental apparatuses it must be recorded the Bragg ionization chamber and the fragment detector MULTICS. At the same time Ileana started to collaborate with several International Laboratories as Bevalac, MSU, GANIL, GSI, moving to higher energy heavy ions.

1990 -2009

Ileana performed experiments at LNS with the MULTICS MEDEA apparatus and started a long and fruitful collaboration with teams working at GSI, in the Aladin and in the Hades experiments. Aladin studied the liquid gas phase of nuclear matter obtaining excellent results. The goal of the Hades experiment is to study the meson production in heavy ion interactions at some GeVA to investigate on the behavior of mesons in nuclear matter. With this last experiment Ileana entered definitively in the domain of high energy heavy ions. In 1997 the Milan group was charged to build the Time of Flight that has been installed in 2001: successful runs of Hades have been done since 2002.

All the experimental activities of Ileana were supported by INFN: it is therefore clear how great has been her contribution to this Institution. She worked within the Nuclear Physics Committee, giving an inestimably contribution to the development and success of the heavy ion physics. Her knowledge of physics as well as her experimental ability and international reputation made Ileana a reference point for the Committee that not only supported many experiments in which she was involved, but also asked her to be a referee for other projects.

The election of Ileana as Director of the Milan Division demonstrates how much she was considered, not only by the nuclear physicist, but by all the INFN community.

Ileana has been charged of other responsibilities within INFN: in particular she was often a member of Boards for the recruitment of personnel for the Institute.

Finally we cannot forget the great educational capacity of Ileana that introduced to Nuclear Physics many students that are now INFN collaborators. We cannot forget her inestimable contribution to the Bormio Winter Meeting. Here nuclear Physicists of many countries meet every year in the unique ambience created by Ileana, by her knowledge of Physics and by her human sympathy. For all of us and in particular for many young physicists the meeting gives a chance to discuss and learn the nuclear physics developments and to live with old and new friends in an unforgettable atmosphere.

To conclude let me say that Ileana was very important when I decided to work in Nuclear Physics.

It was the year 1959 and I worked for my thesis in Physics at the Turin University. My supervisor was professor Ugo Facchini who leded an experimental group at the CISE laboratory in Milan. This group was composed by L.Colli, G.Marcazzan, A.Sona and I.Iori. I was touched by their enthusiasm and application to work (in particular by Ileana) and I decided that it would be fantastic for me to be a researcher in Nuclear Physics. I succeeded and I worked in Nuclear Physics, even if in domain different from that of Ileana. I never signed a paper with her, but I continued to meet Ileana with great pleasure in Nuclear Physics Conferences and in several INFN activities.

Ileana was for me a wise colleague with a deep knowledge of Physics and a friend that I will never forget, and I am sure that this is true for many researchers of INFN and of the Italian Physics Departments.