A first survey of the Collection dates back to 1958. The cataloging of the instruments of the Collection was started in 1997 by prof. Giorgia Foderà, with the preparation of the Vincenzo Sagone's degree thesis in Physics. Currently, the activities of study, cataloguing and conservation are carried out under the supervision of prof. Aurelio Agliolo Gallitto, continuing the work started in 1997 by prof. Foderà.



1 - Armillary sphere (H. Drechsler, Palermo, 1830 ca.) for didactic use.

2 - Becquerel's Phosphoroscope (J. Duboscq, Paris, 1865 ca.) bought by Pietro Blaserna for experimental research on phosphorescence.

3 - **Refractometer** (R. Caruso, Palermo, 1843) used to demonstrate the reflection and refraction laws of light and the critical angle.

4 - **Hipp's Cronoscope** (M. Hipp, Neuchatel, 1865 ca.) used for measuring short time intervals with the precision of a hundredth of a second.

5 - Melloni's optical bench (Ruhmkorff, Paris, 1850 ca.) used for studying the radiant heat.



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The Historical Collection of Physics Instruments of the University of Palermo





A precious Collection

The Historical Collection of Physics Instruments of the University of Palermo consists of more than 500 scientific instruments and apparatuses, dating back to the early 19th century. The Collection was considerably enriched immediately after Domenico Scinà (1765 - 1837) obtained, in 1811, the chair of Experimental Physics and the direction of the old "Gabinetto di Fisica" of the "Reale Università". Instruments of mechanics, acoustics, calorimetry, electromagnetism, optics and modern physics, many of which were part of the apparatuses used for scientific research, mainly made by manufacturers from France, Germany and England, today bear witness to the prevailing interests in the research carried out in Palermo over the last two centuries.

First mid-nineteenth century

Almost 50 instruments have been manufactured the first half of the 19th century. Among them, the double cone and the cylinder with a lead ballast that climb up an inclined plane. The brass armillary sphere, attributed to the English technician Henry Drechsler, a pupil of the famous instrument maker Jesse Ramsden (1735 - 1800); Drechsler founded in Palermo one of the first scientific-instrument workshops of Sicily. Among the instruments built in Palermo, there is also a rare refractometer made in 1843 by Rosario Caruso, probably on indication of Domenico Ragona (1820 - 1892). Finally, Melloni's optical bench built in 1850 in the Ruhmkorff's





Second mid-nineteenth century

The last years of the Bourbon dynasty were not particularly fruitful for the scientific research and teaching of physics in Palermo. Obsolete instruments were still being used instead of being replaced by more modern ones: the instruments suffered a gradual deterioration and were not replaced by new and more modern ones. It was only after the unification of Italy in 1861, with the arrival in Palermo in 1863 of the very young Pietro Blaserna (1836 - 1928) that there was an important turning point, punctually witnessed by the notable enrichment of the Collection. Blaserna managed to turn the critical situation around by purchasing a large number of new instruments, both for teaching and research use, from the best French, English and German manufacturers, chosen from among the most valuable models produced. Among these, Becquerel's phosphoroscope, the four-prism spectroscope, Duboscq's polariscope and the manometric-flame apparatus built in Paris by the instrument maker Rudolph Koenig (1832 - 1901).

First mid-twenty century

In this conspicuous nucleus of instruments, still under study, some of the most prominent instruments are the ionization chamber and the Perucca's electrometer, used by Emilio Segrè (1905 - 1989) for the scientific research conducted together with the mineralogist Carlo Perrier (1886 -1948), which in 1937 made it possible to isolate the chemical element Technetium in the laboratories of the former Institute of Physics of the University.

In 1938, Segrè emigrated to the United States, because of the anti-semitic laws enacted in Italy, and in 1959 with Owen Chamberlain he received the Nobel Prize in Physics for the experimental confirmation of the existence of the antiproton.

