42nd Scientific Instrument Symposium

18 - 22 September 2023,
Palermo, Italy

Through Ages, Cultures, Concepts: Instruments in Collections, Books, Archives

ABSTRACT SUBMISSION FORM

Poster

Author

Full name: FILIPPO MIRABELLO

Affiliation: Independent scholar

Contact e-mail: mirabello@dream.unipa.it

Co-authors (if any)

Full name: MARIA ROSALIA CAROTENUTO

Affiliation: UNIVERSITY OF PALERMO

Contact e-mail: mariarosalia.carotenuto@unipa.it

Full name: AURELIO AGLIOLO GALLITTO

Affiliation: UNIVERSITY OF PALERMO

Contact e-mail: aurelio.agliologallitto@unipa.it

Title: THE "IMPOSSIBLE" CIRCLE

Abstract (max 250 words):

“More than 30 years ago Paolo Brenni went to the Astronomical Observatory in Palermo to check the Ramsden Circle and manage its shipment to Florence for a restoration treatment at the Science and Technology Foundation …”

The first author of this poster had the honour of working with Paolo and wants to remember him here by presenting the restoration of the Ramsden Circle, a unique instrument in the world, now part of the collection of the Astronomical Observatory in Palermo.

Unpublished details relating to the construction technique will be reported, revealing the perfection of an instrument that was highly admired in the late 18th-century scientific world. In consideration of the technological knowledge of the time, its construction was really challenging (Ramsden called it "titanic") and reached the top of the best available technology in those years.

Giuseppe Piazzi (1746-1826), founder and first director of the Observatory in Palermo, discovered the first asteroid, Ceres Ferdinandea (1801), and carried out observations for the two editions of his famous Catalogues of stars (1803 and 1814) by using this instrument.

Piazzi considered the Circle a masterpiece. Even today -two centuries later- the talent of a maker like Ramsden (admitted to conferences only as an auditor!) amazes anyone. Actually, he was able to deliver to Piazzi a genially designed instrument – by inserting a telescope in a circular scale to achieve higher accuracy in star position measurements - and created an original exemplar with the tools of the time. However, how did he do that? We will also try to clarify how Ramsden succeeded in the difficult construction of the Palermo Circle.

Biographical notes of the author(s): (max 50 words per author)

Filippo Mirabello is an industrial expert. From 1982 to 2016 he worked for the restoration of the scientific heritage owned by the University of Palermo. In the nineties, he collaborated with Brenni for the restoration of the Ramsden Circle and the Merz telescope kept at the Specola museum in Palermo.

Maria Rosalia Carotenuto is a conservator. Since 2022, she is a Ph.D. student at the Physics and Chemistry Department of the University of Palermo. In

collaboration with INAF-Astronomical Observatory of Palermo, she is carrying out a research project on the preventive conservation of scientific heritage of astronomical interest.

Aurelio Agliolo Gallitto is a professor of Physics at the University of Palermo and the scientific responsible of the university historical collection of the physics instruments. His research field mainly concerns the history and development of scientific instruments and their applications in teaching.