

# The Hardware Society: Copernicus's Observational Instruments and Their Connection to Tradition

*Thursday, 28 September 2023 14:00 (30 minutes)*

In his “De revolutionibus orbium coelestium”, Nicolaus Copernicus mentions only a few observational instruments. At first glance, their general structure appears identical to those described in Claudius Ptolemy’s “Almagest”. A more attentive look, however, reveals that Copernicus instruments include a number of modifications devised by other Arabic and European astronomers.

In any case, the overall similarity of such instruments was caused by the same relevant problem, which remained unsolved from antiquity up to the beginning of the Seventeenth Century. In fact, of the many observational instruments invented over the centuries, the reliable ones were only those which allowed to minimize chronometric errors. Ptolemy, Copernicus, and Tycho Brahe were three members of a broad “hardware society”, to which reliable chronometers were unavailable.

**Presenter:** STRANO, Giorgio (Museo Galileo - Institute and Museum of the History of Science of Florence)

**Session Classification:** The Encounter with Italian Astronomy: Observations, Instruments, Mathematical Techniques