

# **COPERNICUS AND ITALY 2023**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## From Toruń to Bologna—The Education of a Late-Medieval Astronomer

*Thursday, 28 September 2023 11:00 (45 minutes)*

Most of the research on the education of Nicolaus Copernicus has been focused understandably on his astronomy and natural philosophy. Burning questions about his own statements and arguments in support of heliocentrism, however, led me to focus more on his education in logic. This paper does discuss Copernicus's natural philosophy, trigonometry, and astronomy, but its most substantive and original part looks closely at the logic of his arguments, the sources for his views on the relation between hypotheses and consequences, and their wider philosophical implications for reasoning in natural philosophy.

**Presenter:** GODDU, André (Stonehill College, Easton MA)

**Session Classification:** The Education between Cracow and Italy: Becoming Copernicus

Contribution ID: 2

Type: **not specified**

## Role and meaning of the 'methodos' in the foundation of Copernican Heliocentrism

*Thursday, 28 September 2023 11:45 (30 minutes)*

This paper dwells on the methodos that Copernicus presents in the Dedication to Paul III as the demonstrative path leading man to comprehend the true foundations of the universe, the Earth's motions. These not only accurately account for celestial phenomena without departing from the first principle of the uniformity of circular motions, but reveal the divine creator's imprint on the revolutions of the machina mundi. A description of the various phases in which Copernicus articulates his argument in Book I suggests that the procedures leading to successive outcomes, and which have struck scholars as unusual, form a consistent whole when viewed in light of Plato's hypothetical method. Described in the Phaedo and Republic, this method had already captured Giorgio Valla's attention as a useful way of attaining the "perfect" astronomy.

**Presenter:** DE PACE, Anna (Università di Milano)

**Session Classification:** The Education between Cracow and Italy: Becoming Copernicus

Contribution ID: 3

Type: **not specified**

## How did Copernicus become a Copernican

*Thursday, 28 September 2023 12:15 (30 minutes)*

A close reading of Copernicus's two key texts, *Commentariolus* and *De revolutionibus*, reveals his commitment to the Platonic program of True astronomy, which is to discover the well-proportioned, harmonious universe hidden beyond visible phenomena but accessible through mathematical reasoning. There are several types of evidence of varying weight that support this claim, both textual and contextual.

I will first briefly present some of the textual evidence that support Copernicus's astronomical Platonism, and second show that his sociocultural context during his student years is consistent with this interpretation. I will focus on humanist circles and Platonist currents in Cracow and Padua during his study period (1491-1495 and 1501-1503, respectively). Among other things, I will discuss the existence of a Plato's reading room at the University of Cracow, which indicates a strong interest in Plato shared by the two main Cracow teachers, Albert of Brudzewo and John of Glogów, as well as the influence of Filippo Buonaccorsi (Callimachus) on intellectual life in general and on Copernicus's friend Laurentius Corvinus in particular. Although Padua was considered a stronghold of Averroism, it could not escape the influences of humanism and Platonism. Nicolaus Leonicus Tomaeus very likely read Plato in Greek and translated a part of the *Timaeus* 35a-36e, which Marcantonio Della Torre referred to Girolamo Fracastoro as relevant to the revival of heliocentric astronomy. There were also other personalities, such as Federicus Chrysogonus, who followed "the teaching of the divine Plato and the Pythagoreans".

**Presenter:** VESEL, Matjaz (Institute of Philosophy, The Research Centre of the Slovenian Academy of Sciences and Arts - Ljubljana)

**Session Classification:** The Education between Cracow and Italy: Becoming Copernicus

Contribution ID: 4 Contribution code: 001

Type: **not specified**

## Copernicus and the Problem of Astrology: Some Remarks on the State of the Question

*Thursday, 28 September 2023 10:05 (45 minutes)*

One of many vexatious problems in Copernican scholarship is the question of Copernicus's views concerning astrology. Historians have tended to interpret the absence of direct evidence on this matter as evidence that Copernicus either rejected astrology altogether or simply chose to remain silent on the question. In 1990, I associated myself with this majority view in a study of Copernicus's preface to his main work. However, by 1992, my understanding began to change when I first began to study some of the extant astrological prognostications of Domenico Maria da Novara (1454-1504). This shift in my own views also caused me to rethink the chronology of my long-term project on the reception of Copernicus's theory—initially conceived as beginning with the publication of *De revolutionibus* in 1543. Instead, I became persuaded that the extensive prognostication literature of the late 15th and early 16th centuries deserved to be foregrounded together with the importance of Copernicus's experience as a student in Bologna (1496-1500) living and working with that city's leading astrological prognosticator, Domenico Maria da Novara.

In *The Copernican Question* (2011), I proposed the hypothesis that Copernicus's central problem originated in the context of a highly-charged debate about the conceptual foundations of astronomy and astrology which involved the uncertain order of Venus and Mercury with respect to the Sun. This debate commenced in 1496 with the posthumous publication of Giovanni Pico della Mirandola's *Disputations against Divinatory Astrology*—just a month or two before Copernicus arrived in Bologna to commence his legal studies. And Pico's learned, scholarly study quickly acquired an overtly political character when, in 1497, the Dominican friar Girolamo Savonarola (1452-1498) denounced astrology and its practitioners in a vernacular work based explicitly upon Pico's *Disputations* but directed to a much wider audience.

Early critical reactions to this reconstruction resulted in an extensive exchange of views in 2012-13. In December, 2013, I presented still further evidence for my reconstruction in a lecture titled *Copernicus and the Astrologers*, originally delivered at the Dibner Library in Washington, D.C and published in 2016. Since then, still further interesting questions have been raised by other scholars and it is to those that the principal part of my presentation will be directed.

**Presenter:** WESTMAN, Robert (University of California San Diego)

**Session Classification:** Opening lectures

Contribution ID: 5

Type: **not specified**

## The Hardware Society: Copernicus' 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

Contribution ID: 6

Type: **not specified**

## From the Alfonsine tables to the Prutenic tables

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

One of the first results of the publication of the *De revolutionibus* has been the preparation and the publication of the *Prutenicae Tabulae Coelestium Motuum*, first published in 1551 by Erasmus Reinhold. In my contribution I will present a brief excursus of the astronomical tables in use before the publication of these two groundbreaking works, the main characteristics of the tables included in Copernicus' book and the improvements and corrections introduced by Reinhold with his Prutenic tables.

**Presenter:** TRUFFA, Giancarlo (Independent Scholar)

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

Contribution ID: 7

Type: **not specified**

## Copernicus and Maragha: the state of the transmission question

*Thursday, 28 September 2023 15:00 (30 minutes)*

Copernicus's astronomical models include a number of elements also found in the works of Maragha astronomers, such as the Tusi couple. It is commonly held that Copernicus must have learned of these ideas somehow, most likely during his time in Italy. In previous articles, I argued that the case for this conclusion is not convincing. Here I give an update on the current state of this debate, including an analysis of the recent case for influence articulated by Nikfahm-Khubravan & Ragep (2019).

**Presenter:** BLASJO, Viktor (Utrecht University)

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



Contribution ID: 8

Type: **not specified**

## Possible Copernicus' portraits in Early Renaissance Italian art: a discussion

*Thursday, 28 September 2023 16:20 (30 minutes)*

Has Copernicus' Italian passage left some traces in art? Can we find his portrait somewhere in Early Renaissance Italy?

A scientist's portrait can be interesting in itself, but even more so, as it bears witness of his connection to a place and to an intellectual environment. Between 1496 (or maybe a little earlier), and 1503, Copernicus sojourned in Bologna, Ferrara and Padua as a student, and it is commonly accepted that the Italian years gave to his formation a relevant imprint.

However, the quest for possible new Copernicus portraits (Italian or otherwise), is made arduous by the fact that we don't possess a 100% reliable effigy created during his lifetime. None of his extant portraits can be traced before the half of the 16th century; and, unfortunately, some of the most accredited ones are not completely coherent between them.

Yet, proceeding very cautiously, it is possible to identify a set of peculiar facial features, recurrent in several of the accepted portraiture of the scientist, and look for them in some Italian artworks compatible for epoch and provenance. Some of these Italian artworks have already been mentioned in the past as in hypothetical connection with Copernicus; one is proposed here for the first time. Among them are the Portrait of Luca Pacioli with a disciple (Naples, Museo di Capodimonte); an alleged Portrait of Copernicus formerly in a British private collection (bearing a traditional attribution to Ridolfo del Ghirlandaio, and said to have been painted in Rome in the early 1500s); an early 16th-century fresco in the Scoletta del Santo in Padua, attributed, among others, to Giulio Campagnola; and the Portrait of a young man of the early 16th century (London, National Gallery), currently attributed to Titian.

**Co-authors:** GANDOLFI, Giangiaco (INAF-Osservatorio Astronomico di Roma); VALLESE, Gloria (Accademia di Belle Arti –Venezia)

**Presenter:** VALLESE, Gloria (Accademia di Belle Arti –Venezia)

**Session Classification:** Copernican Portraits

Contribution ID: 9

Type: **not specified**

## Copernicus in Padua: Portrait of Astronomer with Figures

*Friday, 29 September 2023 17:00 (30 minutes)*

We discuss one of the most plausible bona fide portrait of Copernicus during his Italian stay, brought to the attention by Sergio Bettini in 1975: that in the fresco dedicated to the Marriage of the Virgin in the Scoletta del Carmine, probably painted by Giulio Campagnola (1480-1515) in the first decade of 1500. The strange Juxtaposition of the astronomer and several celebrated painters (Durer, Bellini, Mantegna, Morto da Feltre and Campagnola himself may be recognized in the scene) and the uncertain attribution to the friend and collaborator of Giorgione da Castelfranco could help to focus on the artistic and humanistic milieu that the Polish scientist met in Padua and Venice. Furthermore, we will point out in that period and place a possible connection of Copernicus with the astrologer Giovan Battista Abioso (1453-1523) (via Campagnola and Giorgione), highlighting their common interest in Regiomontanus' works.

**Co-authors:** GANDOLFI, Giangiacomo (INAF-Osservatorio Astronomico di Roma); VALLESE, Gloria (Accademia di Belle Arti –Venezia)

**Presenter:** GANDOLFI, Giangiacomo (INAF-Osservatorio Astronomico di Roma)

**Session Classification:** First Italian Reception

Contribution ID: 10

Type: **not specified**

## Nicolaus Copernicus portrait at the Astronomical Observatory of Padua

*Thursday, 28 September 2023 16:50 (30 minutes)*

The Astronomical Observatory of Padua is the only one in the world to present a pictorial cycle telling the progress of astronomical knowledge from antiquity to the 18th century. It was designed by the first director, Giuseppe Toaldo (1719-1797), to make the observatory a beautiful place for study and research and to transmit educational and historical-scientific notions to a broad public. The pictures were carried out by the Vicenza painter Giacomo Ciesa (1733-1822) between 1767 and 1777, and include a full-length, life-size portrait of Nicolaus Copernicus. This portrait refers to the chalcography by Gerard Hoet (1648-1733) and Joseph Mulder (1658-1742) inserted before the frontispiece of the “Astronomica Institutio” by the Dutchman Joannis Luyts (1655-1721), published in 1692. In this communication, we illustrate the portrait and the monochrome mythological scene above it and provide an attempt to decode some of their iconographic details.

**Co-authors:** ZARANTONELLO, Lucia; ZANINI, Valeria (INAF-Osservatorio Astronomico di Padova)

**Presenter:** ZANINI, Valeria (INAF-Osservatorio Astronomico di Padova)

**Session Classification:** Copernican Portraits

Contribution ID: 11

Type: **not specified**

## Copernicus as a Reader of Bessarion and Regiomontanus

*Friday, 29 September 2023 09:00 (45 minutes)*

Thanks to the organizers' fruitful suggestion, this paper explores Copernicus's reading of Johannes Regiomontanus and Cardinal Bessarion, extending beyond strictly textual matters to the more nebulous question of the two thinkers' influence on Copernicus. With a few exceptions, the paper is synthetic, summarizing what we know with certainty, but also suggesting what one can reasonably infer, about Copernicus's debts to these authors. Remarkably, most of the material that Copernicus used grew out of an acrimonious controversy. The opponents were two émigré Greeks on Italian soil during the two decades before Copernicus's birth. Cardinal Bessarion profoundly disagreed with George of Trebizond on matters of geopolitics, theology, philosophy, and astronomy. Some of Copernicus's greatest intellectual debts came from astronomical material produced by Regiomontanus's engagement in that controversy on behalf of Bessarion, whose *In Calumniatorem Platonis* marked its culmination. Copernicus, who owned books by both men, famously undercited his sources (Bessarion not at all, and Regiomontanus far less than he used him). Much careful analysis was needed to uncover Copernicus's reliance on them. Pride of place goes to the *Epitome of the Almagest*, which Bessarion commissioned from Peurbach to counter George of Trebizond's translation and commentary on the *Almagest* and which Regiomontanus finished it. Since Birkenmajer and especially Swerdlow and Neugebauer, the *Epitome of the Almagest* functions as the geometrical link from the earth-centered to the sun-centered universe. Equally important are the many less glamorous ways in which Copernicus relied on Regiomontanus's work for data, criticisms of contemporary astronomy, and even errors. Until all exemplars have been examined, we should assume that Copernicus's copy still exists. From Bessarion's *In Calumniatorem Platonis*, Copernicus used the "Letter of Lysis" in his draft of *De revolutionibus*. His inclusion and subsequent deletion of the letter are important clues about his shifting attitude toward his new theory, from secrecy to publication. Recent research suggests that this is merely the best-known evidence of Bessarion's impact on Copernicus. If the recent past is any indication, future research will tighten the links between Copernicus and these two predecessors and turn up additional parallels to Copernicus's astronomical and philosophical presuppositions.

**Presenter:** SHANK, Michael (University of Wisconsin –Madison)

**Session Classification:** Copernicus among the Humanists

Contribution ID: 12

Type: **not specified**

## Alberti, Copernicus and a Surprising “Thereafter”

*Friday, 29 September 2023 09:45 (45 minutes)*

My point of departure is Leon Battista Alberti's (1404-1472) insight into the nature of visual representation. As an Italian humanist and artist, he was aware of the critical power of visual evidence and a rational deliberation of the appearances vis-à-vis the traditional authority of the ancients. Simultaneously he also challenged a subservient approach to the appearances that might turn out to be “merely apparent”, namely without reflecting true reality. Nicholas Copernicus' (1473-1543) testimony (in his *Commentariolus* ca. 1510-1514) that he engages with “something beyond that very same appearance”—namely the earth immobility in the center of the universe—calls for a more thorough investigation of the changing meaning of “appearances” and the effect of the “apparent” (but not true) on the science of astronomy. Finally, the problematics of the relationship between observation and interpretation will be investigated through a reading of Galileo Galilei's (1564-1642) and the Jesuit Christopher Scheiner's (1573-1650) on the nature of sunspots (CA.1611-13).

**Presenter:** FELDHAY, Rivka (Cohn Institute –Tel Aviv University)

**Session Classification:** Copernicus among the Humanists

Contribution ID: 13

Type: **not specified**

## Celio Calcagnini's Philosophical Defense of the Motion of the Earth (ca. 1518)

*Friday, 29 September 2023 10:30 (30 minutes)*

Around 1518, the Ferrara humanist Celio Calcagnini (1479-1541) wrote an original defense of Earth's motion, *Quod caelum stet, terra moveatur vel de perenni motu terrae* (The Heavens Stand, the Earth Moves, or the Perennial Motion of the Earth). It was a short but complex philosophical treatise, written in a sophisticated style, on a topic of undoubted interest to the history of cosmology. It is one of the earliest documents attesting to the Renaissance circulation of geokinetic conceptions, in the very years when the revolutionary ideas of Copernicus started to circulate and the *De revolutionibus orbium coelestium* was taking shape. Yet, Calcagnini's text has not received adequate consideration in the history of science, apart from a few exceptions. This communication is devoted to this lesser known intellectual figure. It stems from a collaboration with Alberto Bardi aimed to offer the first modern translation of *Quod caelum stet*. I will discuss the cultural context from which Calcagnini's defense of terrestrial motion emerged. It especially relied on natural and epistemological considerations within the framework of an eclectic humanistic philosophy, influenced by skepticism and Platonism. Calcagnini discussed at length the limits of our cognitive faculties and argued for the need that reason moves beyond immediate sensible appearance. He then argued for the plausibility of the Earth's motion against common sense, on the basis of a series of natural arguments. I see this treatise as an important witness of the formation of cosmology, although Calcagnini remained vague concerning the celestial motions he actually attributed to the Earth. I will also discuss possible connections with Copernicus and his work.

**Presenter:** OMODEO, Pietro Daniel (Università Cà Foscari Venezia)

**Session Classification:** Copernicus among the Humanists

Contribution ID: 14

Type: **not specified**

## Domenico Maria da Novara, Copernicus' Teacher of Astronomy in Bologna

*Friday, 29 September 2023 11:30 (30 minutes)*

According to his disciple Rethicus, Copernicus had been “adiutor & testis observationum doctissimi viri Dominici Mariae”, in the years in which he lived and studied in Bologna, at the end of the 15th century. This is Domenico Maria Ploti da Novara, holder of the chair “at Astronomiam” in the Bolognese Studium. A pupil in Ferrara of Giovanni Bianchini and in correspondence with Regiomontanus, both among the greatest astronomers of the fifteenth century, Novara in his time enjoyed a wide reputation.

He had hosted Copernicus at his home, was his teacher of astronomy and made him take part in his astronomical observations, some of which are mentioned in “De revolutionibus”.

Novara was therefore a participant, certainly unaware, of the beginning of that passage between the closed and finite universe of late medieval astronomy-astrology and the next infinite worlds that will give rise to the new astronomy.

Hence the importance of the study of the only remaining works of the Ferrarese astronomer-astrologer, the year-to-year drawn up “Pronostici”, to add a further step on Copernicus' astronomical studies in Bologna.

**Presenter:** BONOLI, Fabrizio (Università di Bologna)

**Session Classification:** Copernicus among the Humanists

Contribution ID: 15

Type: **not specified**

## Copernicus in Ferrara

*Friday, 29 September 2023 12:00 (30 minutes)*

When Copernicus arrived in Ferrara to obtain a degree in canon law, Ferrara was at the height of its splendor under the guidance of Ercole I d'Este. The year before, Lucrezia Borgia had arrived in Ferrara with a large dowry. But

what attracted Copernicus to Ferrara were not the glories of the Court, but the tradition of astronomical studies that he knew from his acquaintance with Domenico Maria Novara in Bologna. At the origin of astronomical studies in Ferrara we find Giovanni Bianchini, whose astronomical tables were the most used at the time. Bianchini had been in correspondence with Regiomontanus, the Copernicus's main modern source. Copernicus's relations with Ferrara did not end with his degree. In the sixteenth century figures such as Calcagnini, Giraldi, Patrizi were attentive to the novelties of scientific knowledge. In the following century heliocentrism entered as a polemical reference in the works of the Ferrara Jesuits Riccioli and Cabeo. In the eighteenth century Bonati dealt with the diurnal motion of the Earth. Historical interest in Copernicus also developed in Ferrara after the unification of Italy with participation in the Copernican celebrations of 1873, with the discovery of the recording of

Copernicus degree in 1876. An interest that surfaced in 1932, in 1993, in 2003, in relation to important city events.

**Presenter:** PEPE, Luigi (Università di Ferrara)

**Session Classification:** Copernicus among the Humanists



Contribution ID: 16

Type: **not specified**

## Wapowski in Rome and his cooperation with Copernicus

*Friday, 29 September 2023 12:30 (30 minutes)*

Not only Copernicus in Roma! This paper will be on the production of maps in the time of Copernicus. Copernicus was not the first. It starts with Brudzewski (ca. 1445 –ca. 1497) who was the teacher of Wapowski (1475 –1535) and Copernicus (1473 –1543) in Kraków. Of course, also Brudzewski relies on earlier ideas, in astronomy as well as in geography. Wapowski and Copernicus become lifelong friends and colleagues. Also Wapowski goes to Roma in 1505. He works on a new Ptolemy edition. Later he becomes the “father of Polish cartography”. Partially in cooperation with Copernicus and building on maps of Nicolaus Cusanus he produced his masterpiece in 1526, the first “realistic” map of Poland, nearly at the same time as comparable maps of Hungary, Bohemia, and Bavaria. In this talk the focus will be on Wapowski and his cartographic and astronomical achievements since he is the less known scholars. However, his relations to other scholars, contemporary and earlier ones, will be considered and discussed in order to shed further light into the development towards what is usually called the Copernican turn, but really is a much more complicated and detailed story of concepts and ideas transported from East to West where Roma played

a certain role but not the only role. At last, it lead to the “Motor Terrae” as which Copernicus is celebrated, in particular in the year 2023.

**Presenter:** GROPP, Harald (Heidelberg University)

**Session Classification:** Copernicus among the Humanists

Contribution ID: 17

Type: **not specified**

## Nicolaus Copernicus and Rome. A survey of the sources

*Friday, 29 September 2023 14:00 (30 minutes)*

It belongs to the frequently repeated topoi of the Copernicus biographies that Nicolaus Copernicus left his place of study in Bologna in the Holy Year 1500, traveled to Rome and spent some time there. In Rome he held lectures as a “professor of mathematics” and enjoyed public attention. This was reported for the first time by his only disciple Georg Joachim Rheticus (1514-1574) in his *Narratio prima* about the six books of Copernicus (Danzig 1540).

The church historian Giuseppe Maria Carafa (1717-1786) dealt with this stay in more detail in his work *De Professoribus Gymnasii Romani Liber Secundus* (Rome 1751).

However, the only real verification of Copernicus’ residence in Rome is an entry Copernicus made in an almanac by Regiomontanus about his observation of the lunar eclipse of November 6, 1500 in Rome. Regardless of astronomical affairs, the Warmia cathedral chapter and thus also the canon Copernicus maintained close relationships with the Roman Curia, which are handed down through letters, files and notarial instruments.

The numerous entries that Copernicus made in his copy of Pliny the Elder’s *Naturalis historia* are largely unknown. They testify his subtle knowledge of chronology and Roman history. The paper describes and comments on the various sources and subjects them to a critical appraisal.

**Presenter:** KUEHNE, Andreas (Deutsche Museum –Munchen)

**Session Classification:** Copernicus in Rome

Contribution ID: 18

Type: **not specified**

## Copernico a Roma e i suoi legami con il misticismo solare alla luce degli studi di Bronisław Biliński

*Friday, 29 September 2023 14:30 (30 minutes)*

Tra gli studi di Bronisław Biliński su Copernico valore particolare hanno le sue tre pubblicazioni nella collana "Conferenze" dell'Accademia Polacca delle Scienze. Si tratta di: 1/ Il pitagoreismo di Niccolò Copernico (1977) 2/Tradizioni dell'astronomia polacca a Roma (1976); 3/Alcune considerazioni su Niccolò Copernico e Domenico Maria Novara (1975). Nel suo studio del 1976 Biliński ha esplorato in modo esemplare tutti gli aspetti del

soggiorno romano del geniale astronomo che qui si esaminerà alla luce delle ricerche recenti. Si prenderanno in esame alcuni aspetti del pitagoreismo di Copernico, molto legato a una sorta di misticismo solare presente non solo nei scritti dei pitagorici e i loro seguaci rinascimentali ma anche nelle opere d'arte sia antica che rinascimentale presenti a Roma. Partendo dalle ricerche di Biliński si cercherà di dimostrare l'importanza dei suoi studi copernicani e nello stesso tempo un possibile impatto dell'iconografia solare greco/romana espresso compiutamente nel primo libro di "De revolutionibus".

**Presenter:** MIZIOLEK, Jerzy (Uniwersytet Warszawski)

**Session Classification:** Copernicus in Rome

Contribution ID: 19

Type: **not specified**

## **Copernico, Roma e la luna: la raffigurazione dell'astronomo polacco su alcune stampe della fine dell'Ottocento relative al suo soggiorno romano**

*Friday, 29 September 2023 15:00 (30 minutes)*

Nel contributo, presentato con il prof. Jerzy Miziolek dell'Università di Varsavia, verranno analizzate tre immagini ottocentesche relative al soggiorno di Copernico a Roma nel 1500 (lezione di matematica e osservazione dell'eclissi solare), confrontandole con l'iconografia copernicana della stessa epoca e con le fonti letterarie sulla presenza dello scienziato nella Roma.

**Presenter:** CECI, Francesca (Sovrintendenza ai Beni Culturali –Roma)

**Session Classification:** Copernicus in Rome

Contribution ID: 20

Type: **not specified**

## Copernican Iconography in Michelangelo's Last Judgment

*Friday, 29 September 2023 15:30 (30 minutes)*

The idea that Copernicus's theory of heliocentricity underlies Michelangelo's depiction of Christ in the Last Judgment as an 'Apollonian' sun-god in the centre of a cosmic circular design was consistently rejected on the grounds that Michelangelo's fresco was finished in 1541, two years before the publication of Copernicus's *Revolutions*, in 1543. However, it can be demonstrated that the Sistine fresco was indeed influenced by the Copernican view of the universe, providing crucial evidence of papal support for Copernican heliocentricity in the 1530s.

In the traditional Judao-Christian iconography of the Last Judgment, the three parts of the universe (heaven, earth and hell) were depicted in a layered format based on the perception of the flat earth covered by the dome of heaven according to biblical cosmology. Michelangelo's fresco takes a revolutionary new approach. Christ is depicted like the sun and is positioned not at the top of a hierarchical scheme but in the centre of a dramatic circular, rotating design. The iconography can be traced to the common ground shared between the Catholic Reformation revival of the ancient analogy between Christ and the sun; the neoplatonic cult of sun-symbolism; and literary sources including Dante. More significantly, the influence of Copernican heliocentricity can be demonstrated by interest in papal circles at exactly the time of the fresco's commission in 1533. Copernican ideas were thus reflected in Michelangelo's fresco, with the knowledge, consent and approval of the two Popes concerned.

**Presenter:** SHRIMPLIN, Valerie (Independent Scholar)

**Session Classification:** Copernicus in Rome

Contribution ID: 21

Type: **not specified**

## The book nobody should read: a follow-up to Owen Gingerich's census of Copernicus' *De revolutionibus* in Rome

*Thursday, 28 September 2023 15:30 (30 minutes)*

In 2002, the astronomer Owen Gingerich published his Annotated census of Copernicus' *De revolutionibus*, in which he described some 600 copies of the first two editions of the heliocentric work of the Polish astronomer (Nuremberg 1543 and Basel 1566); two years later, Gingerich discussed his argument further in his best-selling *The book nobody read: chasing the revolutions of Nicolaus Copernicus*. This monumental result of a 30-year investigation was meant to prove wrong the assumption, shared by some scholars, that the *De revolutionibus* was not read by contemporaries, and should be therefore regarded as uninfluential. Taking the moves from Gingerich's footsteps, this paper will look for evidence of the dissemination and reading of sixteenth-century editions of Copernicus through a survey of copies preserved in Rome, where in 1616 the Congregation of the Index suspended Copernicus' work "until corrected".

**Presenter:** BRUNI, Flavia (Università degli Studi di Chieti Gabriele D'Annunzio)

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

Contribution ID: 22

Type: **not specified**

## Copernicus, the inferior planets, and the Italian Jesuits between Rome and Bologna

*Friday, 29 September 2023 17:30 (30 minutes)*

For most Jesuits, after the publication of *De revolutionibus orbium coelestium* (1543), the center of the universe continued to be occupied by the Earth. As a head of mathematicians at the Collegio Romano, C. Clavius attacked Copernicus based on astronomical reasons. One of the essentials was the motion and position of inferior planets, Venus and Mercury. In some ancient world-systems, these planets were made to rotate around the Sun and their motions were discussed among astronomers in order to evaluate the heliostatic solution. Clavius did reiterate the geocentric hypothesis. A few decades later, another Jesuit in Bologna, Giovanni Battista Riccioli, put Venus and Mercury around the Sun. This paper will analyze the different premises, demonstrative techniques and solutions between Clavius and Riccioli.

**Presenter:** MARCACCI, Flavia (Pontificia Università Lateranense - Roma)

**Session Classification:** First Italian Reception

Contribution ID: 23

Type: **not specified**

## **An Unknown Astronomical Work on Planetary Theory from the Renaissance: Giulio Cesare Luchini, *Delle revolutioni delle sfere celesti libri IX* (ca. 1581)**

*Friday, 29 September 2023 18:00 (30 minutes)*

In this communication, we will present an astronomical work, inspired by Copernicus, that has thus far escaped the scrutiny of the historians of Renaissance astronomy. The Pontifical Antonian Library of Padua preserves a Latin manuscript in Italian, which is of great scientific quality and bears a Copernican-sounding title: *Delle revolutioni delle sfere celesti libri IX* (On the Revolutions of the Celestial Spheres, Nine Books). Almost nothing is today known of the author, Giulio Cesare Luchini of Bologna, apart from the fact that some other astronomical manuscripts of his are still extant in Florence, in the Biblioteca Medicea Laureziana. We will discuss the structure, contents and possible context of this publication, and focus on some aspects linked to the modeling of the movements of the sphere of the fixed stars

**Co-authors:** MOUSSAVI, Razieh (Max Planck Institute for the History of Science, Berlin); Prof. OMODEO, Pietro Daniel (Università Ca' Foscari, Venezia)

**Presenters:** MOUSSAVI, Razieh (Max Planck Institute for the History of Science, Berlin); Prof. OMODEO, Pietro Daniel (Università Ca' Foscari, Venezia)

**Session Classification:** First Italian Reception



Contribution ID: 24

Type: **not specified**

## **Man Goes To The Moon: Copernicus' Legacy, an unconventional perspective**

*Friday, 29 September 2023 18:30 (30 minutes)*

In this paper, I would like to analyse Copernicus' legacy by using two dissimilar texts which conceal a continuity far greater than one might think, namely Galileo Galilei's *Sidereus Nuncius* and *The Other World: States and Empires of the Moon* by Savinien de Cyrano de Bergerac. After considering the *Sidereus Nuncius* as a manifesto of the scientific method, I will stress the similarity between the now defective lunar body and the Earth, which led to the cosmological literature developed during the Seventeenth century that will bring man to an inhabited Moon, in a fictional yet verisimilar reality. The man of the Seventeenth-century is now able to ask himself a profound question: if the Moon is now a demonstrated defective world such as Earth, why should it not be possible for humankind to reach it?

I will call into question the text by Cyrano de Bergerac as a distinctive specimen: by describing the vicissitudes of the protagonist in the *Other World*, I will bring to the surface its peculiar aspects, corroborated by his undeniable adherence to the Galilean discoveries and the Copernican system, siding against the orthodoxy of the Catholic Church. I will conclude this paper by stressing the role of cosmological literature as one of the greatest but underestimated tools that helped spread the news of the Copernican innovations.

**Presenter:** BELOTTI, Elisa (Università di Bergamo)

**Session Classification:** First Italian Reception

Contribution ID: 25

Type: **not specified**

## The long term revolutionary influence of Copernicus on the Italian literature

*Friday, 29 September 2023 19:00 (30 minutes)*

“Il Copernico” by Giacomo Leopardi is an ironic short treatise, written in dialogue form, that the Italian poet wished to include in his “Operette morali” collection. However, he did not, being aware that the treatise would have been noticed and rejected by the Neapolitan censorship. “Il Copernico” was thus included in the collection and published only 8 years later, when Leopardi had already passed away. How was it possible that almost 3 centuries after the “De Revolutionibus Orbium Coelestium” publication the Copernican system was still considered scandalous? And what did Leopardi exactly fear? Another famous Italian writer, Luigi Pirandello, would have made the hero of one of his best known novel, answer to those questions, some years later.

**Presenter:** FOCARDI, Paola (Università di Bologna)

**Session Classification:** First Italian Reception

Contribution ID: 26

Type: **not specified**

## **From the idea of a Copernican museum in Rome to the foundation of the Astronomical and Copernican Museum: 1873-1882**

*Saturday, 30 September 2023 09:30 (30 minutes)*

The celebrations of the fourth centenary of Copernicus' birth held in Rome in 1873 at La Sapienza University gave rise to the idea of a permanent museum dedicated to the famous Polish astronomer. Despite the great interest that the initiative awakened from the very beginning, many years passed before a definitive location for the Museum was identified, which was associated with the Observatory of the Collegio Romano, then with the Astronomical Observatory of Rome in Monte Mario. The original collection of Copernican mirabilia was soon expanded by Artur Wolynski, the curator, and Pietro Tacchini, the director, with scientific material deriving mainly from Italian astronomical observatories. The Museum has thus become a complete compendium of astronomical instruments of a wide range of eras, ancient books and archival documents, which exhibit the evolution of astronomical knowledge from its beginnings to the present day.

**Co-authors:** POPPI, Francesco (INAF-OAR); GANDOLFI, Giangiacomo (INAF-Osservatorio Astronomico di Roma); FACCINI, Marco (INAF-Osservatorio Astronomico di Roma)

**Presenter:** POPPI, Francesco (INAF-OAR)

**Session Classification:** Wolynski and the Copernican Celebrations in Italy

Contribution ID: 27

Type: **not specified**

## Artur Wolynski (1844-1893) –Copernicologist

*Saturday, 30 September 2023 10:00 (30 minutes)*

The aim of the present paper is to present an interesting and rather obscure figure of Artur Wolynski - political emigre, scholar and publicist, a man actively engaged in the life of the Polish emigration community, co-founder of such institutions as The Academy of Adam Mickiewicz in Bologna, The Polish Library in Rome and above all - The Museum of Nicolaus Copernicus in Rome. The main area of Wolynski's interests was the life and work of Copernicus. He wrote over a dozen of works meant to correct opinions on Copernicus, which prevailed then in Italy, particularly concerning his nationality. In the first period of his museum activity Wolynski focused on collecting exhibits that attested to the Polish origins of Copernicus. At the same time, the Museum became the center of advancement of the Polish cause and strove to inform the Italians not only of the cultural output of the Polish people but also of the political situation in partitioned Poland. When the Italian authorities took over the Museum and appointed Wolynski to the post of its curator, he changed his policy, focusing on research and collecting old astronomical instruments from Italian observatories - a policy supported by the authorities. From now on, Copernicus was given much less attention and the Polish national issues almost not at all. The management of the Museum of Copernicus in Rome was gradually taken over by the Italian astronomers.

**Presenter:** PISKUREWICZ, Jan (Instytut Historii Nauki PAN)

**Session Classification:** Wolynski and the Copernican Celebrations in Italy

Contribution ID: 28

Type: **not specified**

## **Copernicus at Sapienza University. The IV Centenary in Rome (February 1873)**

*Saturday, 30 September 2023 10:30 (30 minutes)*

**Presenter:** FAVINO, Federica (Università Sapienza –Roma)

**Session Classification:** Wolynski and the Copernican Celebrations in Italy