

Special seminar of

RESEARCH CENTRE FOR THEORY AND HISTORY OF SCIENCE

with

Matjaž Vesel:

The role of Platonism in the Copernican Revolution

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Sedláčkova 19, 306 14 Pilsen
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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

THE ROLE OF PLATONISM IN THE COPERNICAN REVOLUTION

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One of the most important questions of historical epistemology which is still not completely explained is how Copernicus arrived at heliocentrism. What was the question for which heliocentrism was the answer? How and why did Copernicus become a Copernican? My thesis is that Copernicus' critical attitude towards the state of astronomy, which ultimately resulted in his geokinetism and heliocentric arrangement of the planetary orbs, was founded upon his Platonism. He adapted Plato's views on the order and arrangement of the universe created by the supreme Artisan, the goal of that order for the humankind, and on the status and role of astronomy in discovering this order. Plato expressed these ideas in *Laws*, *Epinomis*, *Timaeus* and *Republic*, and Copernicus summarized them in the original preface (*proemium*) to *De revolutionibus*, in printed preface (Dedication to the Pope) and in Chapter 10 of Book I of the same book. Copernicus' Platonism explains all the most fundamental aspects of his project. It brings unity and coherence to his work and links otherwise seemingly completely unrelated issues, such as the equant problem and the problem of the order of the planetary spheres, into consistent philosophy. Platonist conceptions not only played a negative role in the criticism of Ptolemaic astronomy but were at the same time to a certain extent instrumental in Copernicus' establishment of heliocentric cosmology.