

Jesuit astronomers and the cosmological controversies of the 17th century

The nature and extent of Jesuit contributions to scientific knowledge during the 17th century have been the object of in-depth historical analyses, in fact the Society of Jesus was one of the religious Order most engaged in pedagogical and scientific activities. Focusing on the post-Galilean period, I will analyze the research developed by some Jesuit astronomers and mathematicians through books, letters and other sources, highlighting the lack of a monolithic and rigid uniformity of scientific and epistemological views. There was in fact a constant tension between philosophers, theologians and mathematicians belonging to the Order, the latter torn between the need to adhere to the Aristotelian-Thomistic tradition and a deep interest in innovative ideas developed in mechanics and cosmology. Moreover, the internal supervision carried out by the “Revisori Generali” often compelled individual researchers to find a complex balance between personal interests and innovative research on one hand, and true doctrine on the other. A demanding balance which often resulted in first-rate scientific activity in many Colleges, thus allowing the discovery of all sorts of natural effects, and the publication of those magnificent treatises, which, however, often present rather ambiguous considerations about cosmological models and the way in which the laws of nature operate. Here I focus on cosmological hypotheses, both geocentric and heliocentric, accepted or rejected using a palette of sophisticated arguments. My analysis will be limited to some well-known mathematicians and astronomers (G. B. Riccioli, H. Fabri, A. Tacquet, C.F. Millet Dechaes), trying to understand how so many talented scholars invested all their time and energy, became masters of experimental practices, made important discoveries, published widely circulated treatises and yet played a rather minor role in the fundamental developments of the Scientific Revolution.

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