

JOHN PHILOPONUS CRITICISM OF ARISTOTELIAN AETHER AND HIS VIEWS ON THE MOTION OF CELESTIAL BODIES

John Philoponus (490-570) rejected in his work several aspects of the Aristotelian philosophy of nature, such as the cause of movement of celestial bodies and non existence of the void in the Universe. Aristotle considered a fifth element –aether - as the cause of movement of the stars, an argument which was not approved by Philoponus, whose Christian faith was inconsistent with the existence of aether. Instead, Philoponus suggests the existence of a divine kinetic force - impetus, which causes the movement of all celestial bodies (moon, stars, Earth, sky). Philoponus considers that during the Creation, Creator had impressed this kinetic force in celestial objects in the Universe. Due to this impetus, celestial bodies continue to move not in the Aristotelian aether but in the void, where there is no resistance of the medium to stop them. Therefore, God is the only cause of the motion of celestial bodies. This view of John Philoponus has a significant scientific and religious value, because explains the motion of celestial bodies based on physical laws whose origin however is divine. Moreover, as a difference to views of Aristotle, Philoponus explains terrestrial and celestial motions in unique way, opening doors to the concept of inertia and development towards Newton's laws.

Key words: John Philoponus, impetus, aether, Aristotle, history of science