



PHYSICS AND ASTRONOMY COLLOQUIUM

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“At the Intersection of Physics and Classical Cosmology: Copernicus and Galileo Legacy”

Abstract

This illustrated talk will focus on issues that were raised in the early physical works of Galileo which were previously treated in Arabic philosophical works and determine the points of contact that allowed these primarily philosophical concepts to be re-articulated as physical problems at the hands of Galileo. The talk will illustrate this shift by demonstrating the manner with which the Aristotelian cosmological division between linear and circular motions was effectively annulled with one mathematical theorem, thus simultaneously annulling the division between the celestial and the sublunar regions of Aristotle that were defined in terms of these motions. The said theorem was first developed in the Islamic world, used slavishly by Copernicus, and then re-deployed by Galileo in his endeavor to attack Aristotelian physics while developing his own new physics. The talk will conclude by demonstrating the manner with which Galileo used the earlier Arabic works as interlocutors and at times as tools to prove his arguments against Aristotelian physics.

Wednesday, October 26, 2011

3:30 p.m.

Bob Wright Centre

Room A104