Saturday March 22, Prof. Gene Tracy (College of William & Mary)

Climbing the Cosmic Distance Ladder:
How Astronomers Measure the Distances to Planets, Stars, and Galaxies

Before you go on any trip it is always a good idea to get yourself a good map. When we try to understand our place in the Universe, how do we construct such a map? Even now, we have only visited a few bodies in our immediate cosmic neighborhood. How do we measure distances to objects much farther away, bodies that no human – or human space probe – has ever visited? We will start with a very brief historical discussion of how the Greeks measured the size of the Earth and the distance to the Moon using shadows on the ground and in the sky, some clever ideas, and an open mind. Modern astronomers also use clever methods to estimate distances, and we will see that the basic ideas that underlie these methods are very simple to understand, even if the technology used is complex and extremely sophisticated.

This presentation is aimed at a general audience. No prior knowledge of astronomy, physics, or mathematics is assumed. Just some curiosity, and an open mind.

Time: Saturday, 11am–11:50am
Location: Small Hall 110/111
(behind Muscarelle Museum)
http://www.wm.edu/as/physics

Parking: Lot Jamestown Road

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