coording to the J. B. Phillips translation of Colossians 1:15-17, we read, "Now Christ is the visible expression of the invisible God. He existed before creation began, for it was through Him that everything was made, whether spiritual or material, seen or unseen. Through Him, and for Him, also, were created power and dominion, ownership and authority. In fact, every single thing was created through, and for, Him. He is both the first principle and the upholding principle of the whole scheme of creation."

In the history of science, Christians have tended toward "concordant" views (trying to make Scripture agree with a certain theory of science).

Before Copernicus, The Ptolemaic (geocentric) cosmology (the sun, the planets, and all the stars revolve around a stationary, non-revolving earth every twenty-four hours) was seen to be "in accord" with the teachings of Scripture (it actually was "in accord" with certain tenets of Aristotelian philosophy mixed with certain passages of Scripture interpreted by Aristotelian theologians without paying sufficient attention to literary genre). As a side note, I cannot emphasize enough the importance of developing sound principles that govern the exegesis of Scripture (i.e., what does it say and what does it mean?) in the context of the means by which the Holy Spirit gave and inspired it; i.e., its literary genre.

With Nicholaus Copernicus (1473-1543), we see the beginnings of a paradigm shift in cosmology. He posited, for reasons of mathematical simplicity and symmetry (i.e., beauty), that the sun is stationary and the earth, the planets, and all the stars revolve around the sun.

In *The Revolution of the Heavenly Spheres*, he said that the universe was "built for us by the Best and Most Orderly Workman of all."<sup>1</sup> He lauded the Creator in praise, "How exceedingly fine is the godlike work of the Best and Greatest Artist."<sup>2</sup>

Scientists like Tycho Brahe (1546-1601) tried to save a geocentric interpretation of these Scriptural passages by inventing a scheme in which all the planets revolved around the sun but the sun itself revolved around a stationary and non-rotating earth.

Brahe's hired mathematician, Johannes Kepler (1571-1630), saw that Brahe's cosmology disagreed with the observational data (the best data of the era had been collected using Brahe's instruments) and, after years of careful comparison of data with theory, established his three planetary laws in the context of the heliocentrism of Copernicus. Writing in *Epitome of Copernican Astronomy & Harmonies of the World*, Kepler often resounding in praise to God in his scientific studies, "Great is our Lord and great His virtue and of His wisdom there is no number: praise Him, ye heavens, praise Him, ye sun,

<sup>&</sup>lt;sup>1</sup> Nicholaus Copernicus, *The Revolution of the Heavenly Spheres*, trans. Charles Glenn Wallis (Amherst: Prometheus Books, [1543, 1939] 1995), p. 6. <sup>2</sup> *Ibid.*, p. 27.

moon, and planets, use every sense for perceiving, every tongue for declaring your Creator. Praise Him, ye celestial harmonies, praise Him, ye judges of the harmonies uncovered ... and thou my soul, praise the Lord thy Creator, as long as I shall be: for out of Him and through Him and in Him are all things ... [both the sensible and the intelligible]; for both whose whereof we are utterly ignorant and those which we know are the least part of them; because there is still more beyond. To Him be praise, honor, and glory, world without end. Amen."<sup>3</sup>

The pugnacious Galileo (1564-1642), Kepler's contemporary, sparred with the Aristotelian theologians of the Roman Catholic Church over the issue of heliocentricity vs. geocentricity and received a "slap on the wrist," but not a "burn at the stake" condemnation by church hierarchy (a condemnation that was rescinded by the same hierarchy in the 20th century). Writing in *The Road of Science and the Ways to God*, science historian Stanley L. Jaki says this about Galileo, "The creative science of Galileo was anchored in his belief in the full rationality of the universe as the product of the fully rational Creator, whose finest product was the human mind, which shared in the rationality of its Creator."<sup>4</sup>

Isaac Newton (1642-1727) slew geocentrism with the two-edged sword of his (1) universal law of gravitation and (2) three laws of motion (in Principia, he demonstrated Kepler's laws with a stunning and beautiful display of mathematical analysis). Newtonian mechanics laid the foundation for the next 300 or so years of scientific progress, including every aspect of technology that we now appreciate and, perhaps, take for granted far too much. For example, GPS technology is dependent upon the launching and sustaining of geosynchronous satellites that move "east to west" 22,300 miles above the equator in sync with the earth's rotation as per both Kepler's and Newton's laws. Assisting weather and reconnaissance analysis, polar (or sun-synchronous) satellites (they travel "north to south" at an altitude of 100 to 1,000 miles and fly over the poles of the earth) map the earth as it revolves underneath their purview.

Stanley L. Jaki reflects on the extraordinary work of Newton, "Newtonian science was the product of a truly inventive intellect pondering the witness of the senses."<sup>5</sup>

Newton, in the third edition of *Principia* (Amherst: Prometheus Books, [1687, 1848] 1995), extolled the Creator and Sustainer of the system of the world, "This most beautiful system of sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being. And if the fixed stars are the centres of other like systems, these, being formed by the like wise counsel, must be all subject to the dominion of One; ... This Being governs all things, not as

<sup>&</sup>lt;sup>3</sup> Johannes, Kepler, *Epitome of Copernican Astronomy & Harmonies of the World*, trans. Charles Glenn Wallis (Amherst: Prometheus Books, [1618-1621, 1939] 1995), p. 245.

<sup>&</sup>lt;sup>4</sup> Stanley L. Jaki, *The Road of Science and the Ways to God* (Edinburgh: Scottish Academic Press, 1978), p. 106. <sup>5</sup> *Ibid.*, p. 119.

the Soul of the world, but as Lord over all; and on account of his dominion he is wont to be called Lord God..., or Universal Ruler .....<sup>6</sup>

So, what is my purpose of this short historic overview?

First, as Christians, we must be wary of "according" any current scientific theory to be in agreement of Scripture. We can't even do this with Newtonian mechanics because, in the 20<sup>th</sup> century, Einsteinian and Quantum mechanics have been developed to account for matter going very, very fast (near the speed of light) and matter being very, very small (atomic particles), areas that Newtonian mechanics cannot give adequate account. If we say that the Bible is an accord with a certain "scientific theory" (either cosmology or anything else), we have to ask, "Which science are you talking about?" According to Aristotle, Ptolemy, Brahe, Kepler, Newton, Einstein, etc., ad infinitum?

Second, as Christians try to accord their interpretation of certain Scriptural passages with whatever scientific theory syncs with their interpretation, they tend to end up engaging in polemics. This method of argumentation results in a lot of unnecessary personal attacks (of the ad hominem nature), "Scripture twisting," and the invention of esoteric scientific theories/resources to support whatever viewpoint being defended ... all in the guise of "defending Scripture against all attacks from the enemy." What gets lost in all of this is not only the primary and overall thrust of Scripture, but Christ, who is, according to the Apostle Paul, the First and Upholding Principle of Creation.

The laws that scientists develop about the workings of the physical world (often called the "laws of nature") are not, in themselves, a part of the physical world. No physical theory can predict its own existence or explain its own power. These laws point outside of themselves; indeed, outside of the physical universe itself. They point to a transcendent reality, a reality beyond time and space. As David Berlinski states in *Newton's Gift: How Sir Isaac Newton Unlocked the System of the World*, "They [these laws] exist beyond space and time; they gain purchase by an act of the imagination and not observation, they are the tantalizing traces in matter of an intelligence that has so far hidden itself in symbols."<sup>7</sup> Berlinski continues, "The great physicists have always recognized that they organization of nature represents a profound mystery. They have for this reason paid homage to those laws, seeing in their symmetry and perfection something of great and ineffable majesty."<sup>8</sup>

The tantalizing traces in the physical world of great majesty and ineffable intelligence point to Christ, the source of all rationality, the One in whom, by whom, and through whom all things were created (John 1:1-3) and the One who truly is the First and Upholding Principle of Creation. If our

<sup>&</sup>lt;sup>6</sup> Isaac Newton, *Principia* (Amherst: Prometheus Books, [1687, 1848] 1995), p. 440.

<sup>&</sup>lt;sup>7</sup> David Berlinski, *Newton's Gift: How Sir Isaac Newton Unlocked the System* of the World (New York: Simon and Schuster, 2000), p. xv.

<sup>&</sup>lt;sup>8</sup> Ibid.

understanding of, or polemics surrounding, scientific law does not lead us to worship this Christ (as exampled by Copernicus, Galileo, Kepler, and Newton), *then we are wasting our time*.