## Introduction by Ann Hall Kitzmiller dynamicspacetime.com

By 1611 Johannes Kepler had formulated his three laws of planetary motion. In 1687, Newton published his "Principia" exploring the behavior of masses including the inverse square law used in Newton's Law of Gravitation. All the equations that Kepler and Newton created require a grid on which to plot the behavior of the masses. Usually this grid is a Cartesian coordinate type of grid in which every unit is of equal size.

These equations and the grid on which they operated were very successful in predicting the behavior of masses until 1845. In that year, Leverrier calculated that Mercury's orbit precessed by 35" per century. After adjustments and recalculations there was still a discrepancy of 43" per century. Kepler's and Newton's laws and the grid, on which they rely, failed to accurately predict the behavior of Mercury.

In 1915, Einstein used General Relativity to explain Mercury's behavior. General Relativity states that the observed gravitational attraction between masses is the result of the warping of space and time by the masses. Masses warp spacetime by contracting the space unit and dilating the time unit around the mass. This pairing of contracted space and dilated time applies through the entire universe.

This web site explores the dynamic aspects of the current cosmological understanding.

In Assumptions, classical assumptions are summarized and the reasons they have replaced by modern ones are explained.

In Grids, special attention is paid to the limitations of the grid and the consequences of misusing the grid.

In Spaghettification, two conditions in which misapplication of the grid and grid equations has led cosmologists astray are explored and corrected.

In Model, a cosmological model incorporating the Kitzmiller variation of the dynamic nature of spacetime and the resulting improvement in our understanding of the universe is presented.

In Animations there are four animations which will help illuminate these concepts. A-9 Asteroids - a flash animation by Joe Blaszczak S-8 Spaceman falling into a black hole - a gif animation by Ann Kitzmiller M-9 Waves - a flash animation by Brian Dennis M-10 Blobs - a gif animation by Ann Kitzmiller