Light, Energy, and Matter

Thomas R. Cuba

2025 0416

Albert Einstein erected a working relationship between the speed of light and matter. Briefly stated, he concluded that energy is equal to the square of the speed of light times the mass of the matter under consideration: $E = mc^2$. We all learned this in high school.

Later theorists have extended this relationship to predict that, as the speed of an object increases, it takes more and more energy to increase that speed any further. In addition, it has been theorized that, in order for an object of a given mass to reach the speed of light, the mass of the object must decrease as the speed increases. Each of these are based on some fairly complicated logic that has been used to interpret the relationship as well as the mathematics describing that relationship.

For myself, I am a little more basic in my theorizing and cannot support what I am about to write with observation, mathematics, or theory. It's simply an easier way for my mind to comprehend what these other folks are trying to get at.

Given that the theories establish a quantifiable relationship between energy and mass, I find it quite easy to comprehend or conceptualize Mass as nothing more complicated than Frozen Energy.

As the speed increases, the matter "melts,' reducing the mass and increasing the energy. It may be a simplistic concept, but it meets the criteria of the existing theories.