

The String Theory

At first, this theory was not exhilarating to many physicists because it seemed preposterous. However, many physicists soon became hooked to this theory when two physicists, John Schwarz and Michael Green, found one equation for all forces in 1982.

"The String Theory" suggests that "small vibrating 1-dimensional objects with length and tension constitute the universe". Each dissonant vibration constitutes a different particle. An example is sound waves created on a musical instrument. Each string on the instrument can vibrate in resonant patterns creating various amplitudes and wavelengths in the sound wave. Therefore, a variety of musical notes can be heard. Thus, there is no possible way for strings to vibrate in the three spatial dimensions that we are familiar with, up and down, left and right, and back and forth. To solve this problem, six more dimensions were added.

Finally, five different forms of string theory were developed. If there is one theory that describes the whole universe, which of the five is correct? With the help of Ed Witten this mystery came to a close, and the development of M-theory was created.

M-theory is also called for another dimension. This extra dimension theorizes that if a "vibrating string had enough energy, the string could expand, creating a membrane". With enough energy this membrane could expand to the size of the universe. It is now thought that our universe is living in a membrane inside a much larger higher dimensional space. Thus, there could be parallel worlds on other membranes coexisting with ours just a millimeter away.

In the theory of quantum physics, the law that controls how atoms behave, the fabric of space is random and chaotic. Because of this chaotic and random movement the fabric of space often tears. What causes these tears to stop? The answer is strings. As strings float around in the fabric of space, the strings act as a tube around the tear forming a protective bubble. This tube is called a wormhole.

Theoretically, a wormhole is a tunnel or bridge that links distant regions of space, in other words, a cosmic shortcut to different places in the universe. This phenomenon can only be described in the extra dimension from M-theory.

M-theory also explains why gravity seems to be billions and billions times weaker than electromagnetism. This is because gravity, composed of particles called gravitons, is "surrounded by closed strings and are able to wander off into extra dimensions". With this knowledge, physicists may be able to construct a device that can communicate to parallel universes by exchanged strong gravity wave sources.

Physicists are currently trying to find gravitons by the use of atom smashers. The atom smasher collide hydrogen atoms into each other while traveling at the speed of light. As the hydrogen atom collides, numerous particles disburse. No results of detecting a graviton were successful but, hopefully, with the help of a much more power atom smasher, the graviton will be discovered. The reason why the discovery of the graviton is very important is because it will prove that the string theory may be true.

"The String theory" has not provided a definite answer about the "Big Bang". It has, however, provided an assumption. Two membranes, highly energized strings, carrying parallel universes were drifting towards each other. As they hit, the energy given off has to go somewhere. Thus, the "Big Bang" occurs. This does not occur just once but many times. There may be "Big Bangs" occurring at this moment between other membranes.

If "The String Theory" is somehow proved accurate, the greatest mystery ever existed in life will be answered. "The String Theory" will explain why the universe is the way it is. We may even be able to discover other life forms in other universes. Wormholes would provide a much profound efficient way of exploring the universe and parallel worlds.

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