

Albert einstein's theory of relativity



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Albert Einstein is famous for his two scientific theories in the 18th century; namely the theory of general relativity and special relativity. In 1919, Einstein's theory of gravity, known as the theory of general relativity, was confirmed because of the occurrence of the solar eclipse (Lightman). Einstein's theory on gravity was the next groundbreaking theory on the subject for over 250 years (Lightman).

In 1915, Einstein published his work discussing the theory of general relativity. The theory posits that the intervals of time and space are affected by gravity and motion (Lightman). Einstein theorized that gravity in one direction has an equivalent acceleration in another direction. This is the primary principle in the theory of general relativity, called the equivalence principle (Lightman).

The theory of general relativity is connected to the theory of special relativity, which discusses the laws of motion of particles (Stanford Linear Acceleration Center).

The theory of special relativity claims that such motion has an effect on time and space, but the theory deals more particularly with particles moving at very high speed, a stark contradiction to Newton's earlier theories. (Lightman; Stanford Linear Acceleration Center).

Einstein's general relativity theory has been successfully applied in various studies. For example, in 1922, Alexander Friedmann developed the famous cosmological theory, known as the big bang theory, based on Einstein's theory.

The theory is given great credit in the scientific community because unlike other theories, Einstein's theory is not primarily based on experiments. Einstein's thoughts were decades ahead of his time, and have paved the way for future major breakthroughs and discoveries in the field of physics and mathematics (Lightman).

Works Cited

Lightman, Alan. "Relativity and the Cosmos." 2005, 20 March 2007. NOVA Science Programming on Air and Online. .

Stanford Linear Acceleration Center. "Special Relativity." 20 March 2007 .