Accelerated expansion of a symmetric universe

M J Van Der Burgt
Delft University, Netherlands

A universe containing matter and antimatter can only exist when matter and antimatter repel each other. Such a system, where like attracts like and like repels unlike, will always expand. Calculations made for such a symmetric universe demonstrate that the expansion is consistent with Hubble's law, the observed increase in the expansion velocity with time, the initial high acceleration and the foam structure of the universe. Conversely, these observations can be considered as proof for a symmetrical universe and for antimatter possessing a negative gravitational mass. This underpins the untenability of the Weak Equivalence Principle which states that in a gravitational field all structure less point-like particles follow the same path.

Biography

M J Van Der Burgt holds an MSc degree in Chemical Engineering of Delft University (Chemical Engineering). After a year in Purdue, he joined Shell where he worked for over 30 years in hydrogen processes and strategy. Since his retirement he worked for over 20 years as an independent consultant in the field of power generation and related subjects. He has lectured around the world including some seminars at Princeton University and wrote a standard work on the conversion of hydrocarbon fuels into synthesis gas and power. In 1953, he was awarded the DOW Chemical Energy prize and became a Knight in the order of Orange Nassau. It is his life long interest with physics and astronomy that has resulted in various manuscripts.

maagburgt@gmail.com