

Abstract Submitted
for the NES06 Meeting of
The American Physical Society

Dark Matter and Dark Energy Explained SOL AISENBERG, International Technology Group — The standard model of the universe has many mysteries and defects requiring the use of large fudge factors such as Dark Matter and Dark Energy. We will show that Dark Matter is needed when we try to extend Newton's law of gravity (based upon observations in our solar system) to galactic distances. Dark Matter was introduced to explain the observed flat velocity rotation curves of the outer parts of spiral galaxies, as observed by Vera. Rubin. Much earlier, the (under appreciated) Fritz Zwicky introduced the need for large amounts of missing invisible matter to explain the surprising observed motion of groups of remote galaxies. In our hypothesis, the modification of Newton's laws by the addition of a linear term to the gravitational constant that increases with distance will eliminate the need for dark matter. Our hypothesis is different from the MOND theory of Milgrom, which depends upon acceleration. The Red shift observations by Hubble as a function of distance, and interpreted as "apparent Doppler effect" led to the unproven belief that the universe is expanding, and thus to the Big Bang. In turn the apparent acceleration of the expansion required the introduction of Dark Energy. Actually there are three additional components of the red shift that are solely due to gravity and distance and can be larger than the Doppler contribution.

Sol Aisenberg
International Technology Group

Date submitted: 23 Feb 2006

Electronic form version 1.4