

Abstract Submitted
for the APR09 Meeting of
The American Physical Society

A brief crack of light between two eternities of darkness: DM and DE explained JAMES BEICHLER, Retired — I have previously presented a geometrical explanation of Dark Matter and Dark Energy that is falsifiable, but the model was criticized for being non-mathematical. In this structure, the four-dimensional space-time of relativity is extrinsically curved in a higher spatial dimension. Dark Matter is curvature in the higher dimension that is not directly associated with local matter, but instead results from an interaction between the curvature of local matter and the global curvature due to all matter in the universe. The earlier criticism has now been overcome by looking at the possible particulate source of galactic halos and a simple yet revolutionary algebraic formula has been derived. The algebraic formula implies a five-dimensional unified field structure such as that developed by Kaluza in 1921 and extended by Einstein and his colleagues in the late 1930s. Others, such as H.T. Flint, have developed more complete mathematical models of similar five-dimensional structures. The new equation also shows how gravity can be quantized on the basis of relativity without hypothesizing the discrete nature of matter, i.e., the existence of specific “particles” of gravity, inherent in quantum mechanics, the Standard Model and other quantum models.

James Beichler
Retired

Date submitted: 04 Nov 2008

Electronic form version 1.4