

Abstract Submitted
for the APR10 Meeting of
The American Physical Society

The Physical Origin of Lambda-CDM: DM and DE explained

JAMES BEICHLER, Semi-Retired — In the past few decades two new ‘crises’ for fundamental physics have emerged by the observation of phenomena that indicate the existence of Dark Matter and Dark Energy. These are not problems which can be solved by quantum theory, but rather problems that are related to gravity theory as expressed by the general theory of relativity. Numerous suggestions and hypotheses have been suggested to explain these problems, but no particular hypothesis or resulting model has proven satisfactory and no model yet proposed seems to be able to explain both DM and DE even though most physicists agree that the two should have a single common explanation. However, one new model has emerged that simply explains both DM and DE. This model includes a fundamental change in Newtonian gravity theory that expands three-dimensional space to four dimensions and thus forces the acceptance of an extrinsically curved four dimensional space-time. The extra term added to Newton’s gravity can then be equated to the Lambda-CDM or ‘quintessence’ that has been added to Einstein’s formula. Yet this new model is not without consequences for the rest of physics and science. Accepting this new model would mean accepting the existence of a macroscopically extended fourth space-like dimension.

James Beichler
Semi-Retired

Date submitted: 18 Oct 2009

Electronic form version 1.4