

Abstract Submitted  
for the OSF07 Meeting of  
The American Physical Society

**Ten Minutes in the Dark** JAMES BEICHLER, West Virginia University at Parkersburg — Both Dark Matter (DM) and Dark Energy (DE) can be explained using a single extended model of the space-time continuum. The Cold Dark Matter halo around spiral galaxies emerges as a natural consequence of the geometry after adding a macroscopic fourth dimension of space to normal four-dimensional space-time. Once DM is explained, the DE that is increasing the rate of expansion of the universe follows. No changes to General Relativity are required beyond the realization that curvature is an extrinsic property of the four-dimensional space-time continuum. Kaluza's five-dimensional unification of General Relativity and electromagnetic theory is completely explained by this model.

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Date submitted: 26 Sep 2007

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