

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**A massive graviton generalization of general relativity** CHRIS VUILLE, Embry-Riddle Aeronautical University — The gauge bosons of Einstein's theory of general relativity are thought to be massless, with gravity waves propagating at the speed of light. It may turn out, however, that gravitons possess a very small mass. Developing a geometric theory of massive gravitons, therefore, may aid current researchers in gravity wave physics, who are currently mounting great efforts to observe these waves directly. One such theory, together with some basic solutions, is presented here. The theory is a generalization of Weyl's geometry, and could conceivably provide another avenue in the development of inflationary cosmologies.

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Date submitted: 14 Jan 2005

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