

Abstract Submitted
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Higher Dimensional Gauss-Bonnet FRW Cosmology CHAD MIDDLETON, Mesa State College, KEITH ANDREW, BRETT BOLEN, Western Kentucky University — We examine the effect on cosmological evolution of adding a Gauss-Bonnet term to the standard Einstein-Hilbert action for a $(1 + 3) + d$ dimensional Friedman-Robertson-Walker (FRW) metric. By assuming that the additional dimensions compactify as a power law as the usual 3 spatial dimensions expand, we solve the resulting dynamical equations and find that the solution may be of either de Sitter or Kasner form depending upon whether the Gauss-Bonnet term or the Einstein term dominates.

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