

Abstract Submitted
for the CAL13 Meeting of
The American Physical Society

Beyond Fefferman-Graham in higher-derivative theories of gravity COLIN CUNLIFF, University of California, Davis — The Fefferman-Graham expansion provides a natural tool for determining the asymptotic behavior of the metric and for addressing the question of appropriate boundary conditions for asymptotically (locally) anti-de Sitter (AIAdS) spacetimes. In general relativity, it has already proven to be an important tool in holographic renormalization and in the computation of correlation functions in the boundary CFT. However, for higher-derivative theories of gravity, the Fefferman-Graham expansion does not adequately account for the new gravitational degrees of freedom and their asymptotic behavior. This talk examines how to modify the Fefferman-Graham expansion to accommodate these higher-derivative theories. Some consequences of the modified FG expansion are presented for two particular theories: topologically massive gravity (TMG) and new massive gravity (NMG).

Colin Cunliff
University of California, Davis

Date submitted: 27 Sep 2013

Electronic form version 1.4