

Abstract Submitted  
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**Effective Field Theories for Dark Energy** JOLYON BLOOMFIELD,  
EANNA FLANAGAN, Cornell University — Recent attempts have been made to  
derive the most general effective theory of dark energy involving gravity and a scalar  
field, including up to four derivatives of the fields. The resulting effective field theory  
incorporates a number of different models, including quintessence, k-essence, and  
ghost condensation. However, the derivation of these effective theories neglect issues  
related to the choice of frame and the coupling between the scalar field and gravity.  
Taking these issues into consideration, we propose a slightly different construction  
for and discuss the implications of the resulting effective theory.

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