

Abstract Submitted
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Diffeomorphisms as a Source of the C.M.B. Anisotropy CHRISTOPHER DORAN, KORY STIFFLER, VINCENT RODGERS, University of Iowa — The diffeomorphism field is a rank-two tensor that naturally arises from the Virasoro algebra. It was suggested by Rodgers and Yasuda that this field has the potential as a candidate for the inflaton in the early universe and appears in the origins of dark energy in cosmology. We are now examining its influence on the C.M.B. anisotropy, which is one of cosmology's outstanding problems. We consider first-order space-time dependent fluctuations to the Einstein tensor through fluctuations to the metric, diffeomorphism field, and perfect fluid tensor for radiation. The goal is to find appropriate solutions and use them in the CMBFast or CAMB simulations to get a picture of the diffeomorphism field's contribution to the anisotropy.

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