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Title: Gravitational Fluctuations as an Alternative to Inflation

Abstract: The ability to reproduce the cosmological power spectrum to high accuracy has often been regarded as a great triumph and evidence of inflation. In this work, we explore an alternative explanation for the power spectrum that is motivated by gravitational fluctuations alone. It can be shown that by only assuming Einstein's gravity and quantum field theory, without relying on the usual assumptions associated with inflationary models, which usually relies on one or more scalar fields, both the galaxy and CMB cosmological power spectra can be fully reproduced, and thus offering a compelling alternative to inflation. In addition, several testable predictions can be derived in this gravitationally-motivated picture that deviate from the conventional inflation one, which will hopefully become verifiable in the near future with increasingly precise cosmological measurements.