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## Cosmological Fluctuations in Delta Gravity

*Wednesday 7 September 2022 15:50 (20 minutes)*

About 70% of the Universe is Dark Energy, but the physics community still does not know what it is. Delta Gravity (DG) is an alternative theory of gravitation that could solve this cosmological problem. Previously, we studied the Universe's accelerated expansion, where DG were able to explain the SNe data successfully. In this work, we explore the cosmological fluctuations that give rise to the CMB through a hydrodynamic approximation. We calculate the gauge transformations for the metric and the perfect fluid to present the equations of the evolution of cosmological fluctuations, providing the necessary equations to solve in a semi-analytical way the scalar TT Power Spectrum. These equations will be useful for comparing the DG theory with astronomical observations and thus being able to restrict the DG cosmology, testing the compatibility with the CMB Planck data, which are currently in controversy with SNe.

### Is this abstract from experiment?

No

### Name of experiment and experimental site

N/A

### Is the speaker for that presentation defined?

No

### Details

N/A

### Internet talk

Yes

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