

Copernicus Webinar and Colloquium Series



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Signals of a Quantum Universe

Wednesday 16 September 2020 18:00 (1 hour)

The idea that structure in the universe was created from quantum mechanical vacuum fluctuations during inflation is very compelling, but unproven. Testing this proposal is challenging because the universe we observe is effectively classical. I will explain the origin of this challenge and how it can be circumvented if we observe equilateral primordial non-Gaussianity. In particular, we will see that the absence of an accompanying folded non-Gaussian signal is only possible (assuming locality) with quantum vacuum fluctuations.

Presenter: Prof. GREEN, Daniel