

## Copernicus Webinar and Colloquium Series



Contribution ID: 306

Type: **not specified**

# Lingering Before Inflation

*Tuesday 20 February 2024 15:00 (1 hour)*

In this talk, we revisit motivation from String Theory for new phases of cosmology –prior to inflation. Cosmic inflation offers a causal way to predict initial conditions for the growth of structure and density fluctuations in the cosmic microwave background and large-scale structure formation. However, asymptotic de Sitter space possesses a past cosmological (physical) singularity implying the theory cannot be complete. In this talk, I will discuss how investigations into QCD led to an idea that could prevent the past singularity, or at least give a way to calculate predictions in real time on curved space-time backgrounds. This paradigm would lead to cosmologies that do not begin (Big Bang) or repeat (Ekpyrotic / Cyclic scenario) but instead begin from sitting around –a period of “lingering”, as first considered by Lemaître.

**Presenter:** WATSON, Scott (Syracuse University)