

# The Hubble Tension as the Signature of a New Phase of Dark Energy

*Wednesday 20 November 2024 14:00 (1 hour)*

In my talk, I will argue that the Hubble tension might be the signature of new physics in the early Universe. First, I will describe the conditions new physics has to satisfy to stand a chance of addressing the Hubble tension without compromising the fit of the CMB. Secondly, I will argue that this new physics could be related to a new phase of dark energy that decays in a first-order phase transition before the CMB forms. In particular, I will consider the model of Cold New Early Dark Energy and highlight the central role of an ultralight scalar field that triggers the phase transition and contributes a small fraction of fuzzy dark matter.

**Presenter:** NIEDERMANN, Florian (Nordita)