



University
of Victoria

PHYSICS AND ASTRONOMY COLLOQUIUM (Online)

Dr. Seyda Ipek
Carleton University

“Rewriting Our (Cosmological) History”

Abstract

“Our universe is currently about 13.8 billion years old, but it was very young at some point. Learning about the first moments of the universe is very important and extremely hard. In fact, the earliest time we can observe in the history of our universe is when it was a few seconds old. This is the era of Big Bang Nucleosynthesis, when first light elements were being produced. What happened before then? We only have theories. Our best theory of particle physics is the Standard Model. The Standard Model (plus a few extra cosmological parameters) predicts a certain cosmological history, but what if we are missing something? I will describe a few alternative cosmological histories with different beyond-the-Standard-Model physics ingredients and discuss the new phenomena these non-standard cosmological histories give rise to.”

Wednesday, March 23, 2022

3:30 p.m. PDT

via Zoom: <https://uvic.zoom.us/j/89783445361>