Monday
January 22nd
At 3:45 PM

Cosmological Lithium Problems

Abstract:

Big Bang nucleosynthesis (BBN) theory predicts the abundances of the light elements D, 3He, 4He, and 7Li produced in the early universe. The primordial abundances of D and 4He inferred from observational data are in reasonable good agreement with predictions. However, BBN theory overestimates the primordial 7Li abundance by about a factor of three. This is the so-called “cosmological lithium problem.” A second lithium puzzle exists in connection to the 6Li/7Li abundance ratio. Solutions of these problems using conventional astrophysics and nuclear physics have not been successful over the past few decades, probably indicating the presence of new physics during the BBN epoch. I will discuss recent work on the cosmological lithium problems at Texas A&M University-Commerce.

TEXAS A&M UNIVERSITY

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Refreshments will be served at 3:30 pm