Journal Club- session: 2. Dec. 2019 16:00

Have a look at the following publications about the BBN ^{7}Li problem:

Cosmological Solutions to the Lithium Problem

G. J. Mathews[1], A. Kedia[1], N. Sasankan[1], M. Kusakabe[2], Y. Luo[3,4], T. Kajino[2,3,4], D. Yamazaki[3,5], T. Makki[6], and M. El Eid[6]

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- Summarize the success of the BBN in terms of predictions as function of η. Why is BBN considered one of the pillars of the "hot big bang model" – despite the ^{7}Li problem?
- How is the primordial ^{7}Li abundance inferred?
- How does nuclear physics influence the ^{7}Li abundance? What are the main reactions/uncertainties leading to the prediction of the abundance?
- Why is it so difficult to solve the ^{7}Li problem using beyond standard model solutions?
- Discuss the pros and cons of the possible solutions