

Cosmology

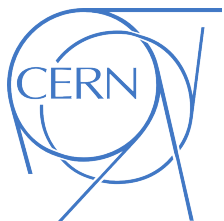
Lectures at CERN Summer Student Program 2023

Outline:

- 1) The expanding Universe
- 2) Relics of cosmic history
- 3) Cosmic inflation

Literature

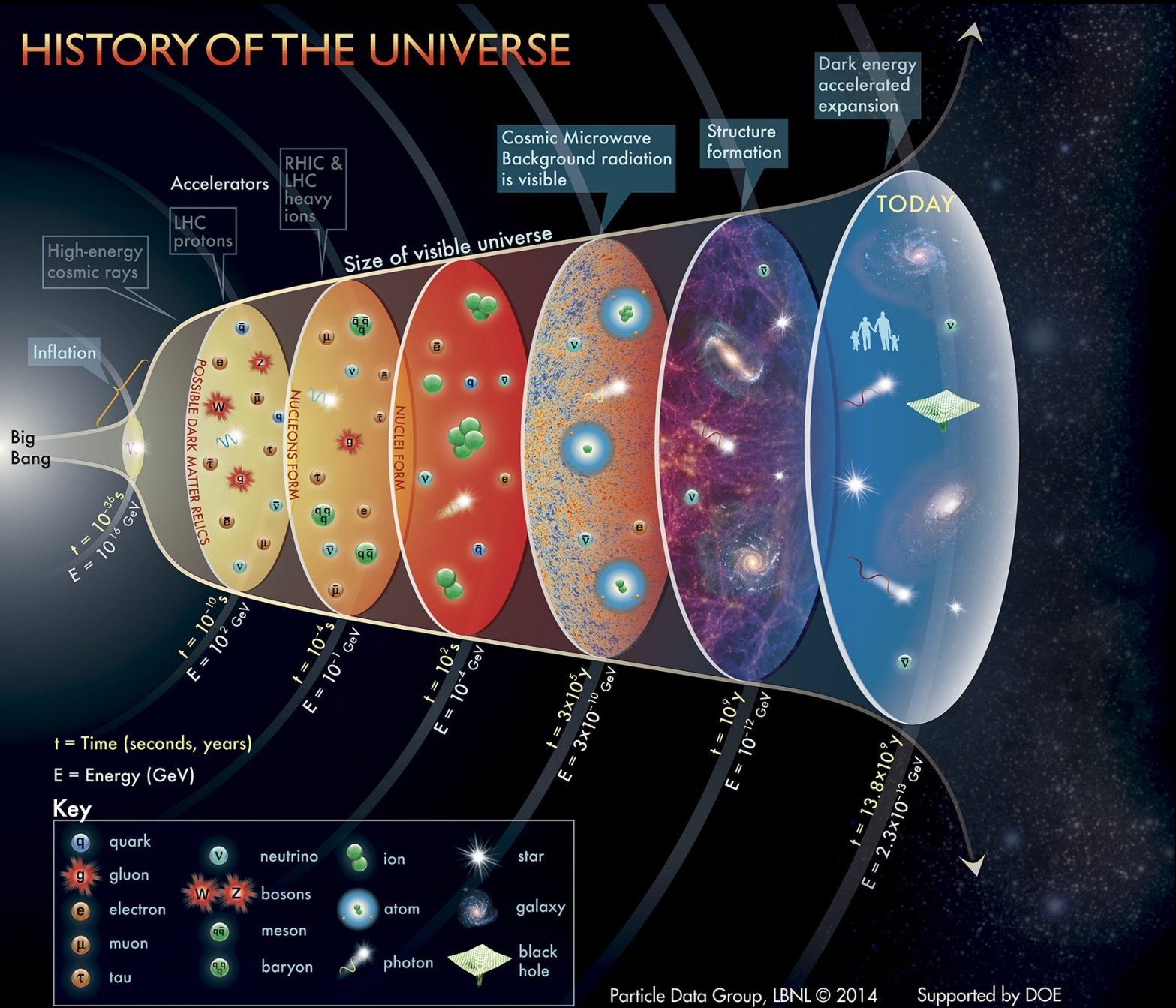
- Kolb, Turner: The early Universe (1990)
- Bailin, Love : Cosmology in gauge field theory and string theory (2004)
- Baumann: TASI Lecture Notes Inflation arxiv: 0907.5424



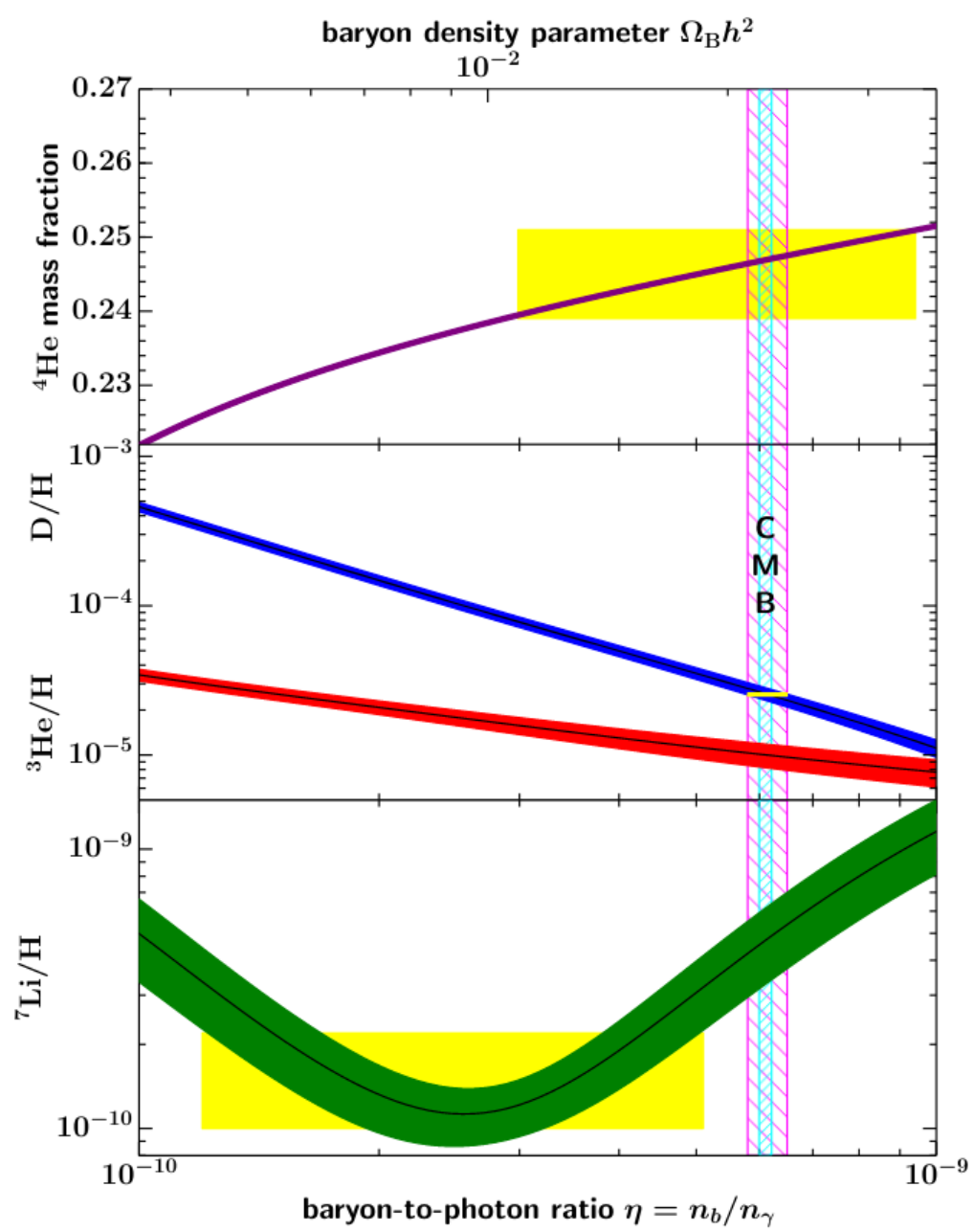
valerie.domcke@cern.ch

Valerie Domcke - CERN

HISTORY OF THE UNIVERSE



BBN



observed abundances

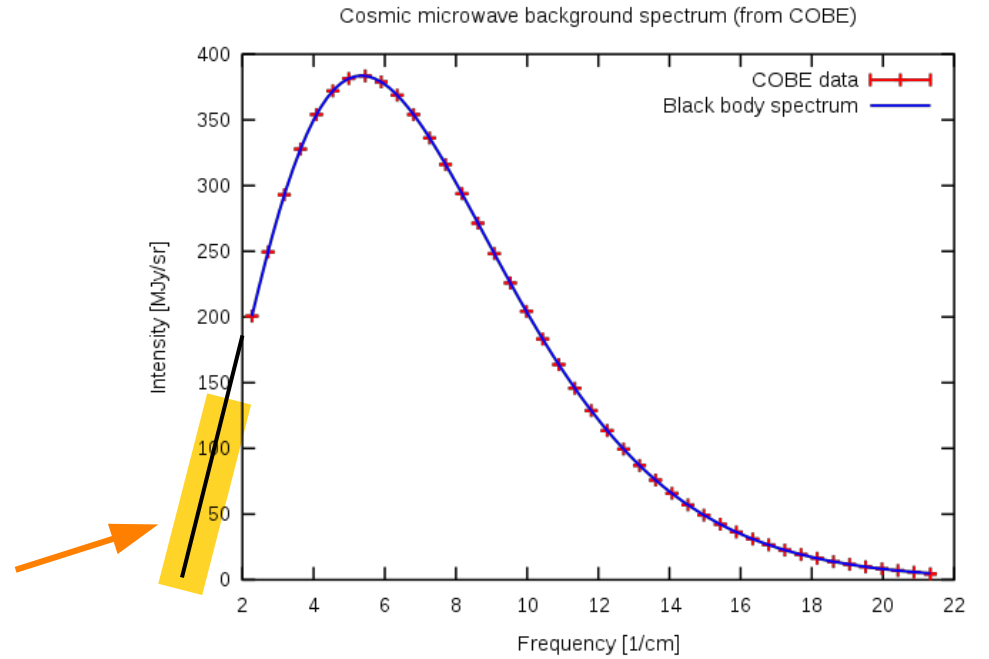
colored bands: BBN predictions

Fig. from PDG

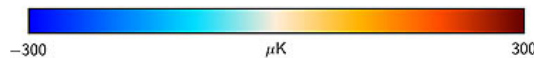
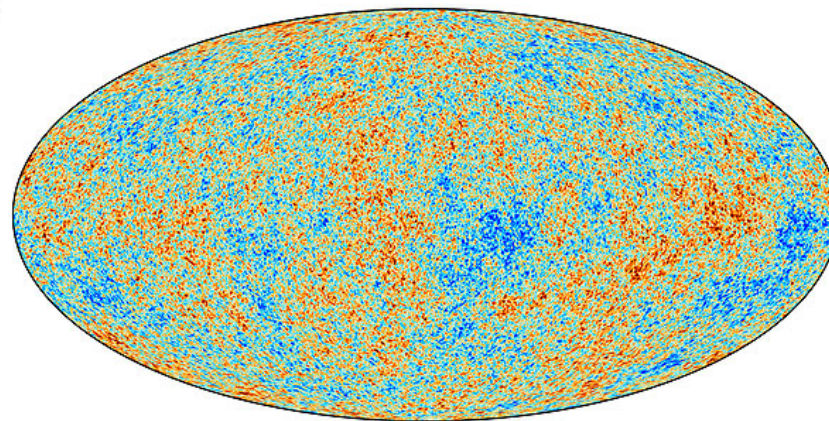
CMB



Arno Penzias, Robert Wilson 1964



PLANCK Satellit,
2009 - 2013



COBE satellite,
1989-93

inflation

