

Cosmology 1

2023/2024
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Proposed problem, lecture 16

Topic: Planck era.

Go through the calculation (both symbolic and numerical) of all the Planck quantities:

- (a) Planck mass,
- (b) Planck length,
- (c) Planck time,
- (d) Planck energy,
- (e) Planck density,
- (f) Planck temperature,
- (g) Planck horizon length,
- (h) Planck adimensional entropy within the horizon,
- (i) scale factor at Planck time,
- (j) size of the visible universe at the Planck time.

All these quantities are given in the lecture notes.