Oblig10 FYS9130 Deadline: Thursday 25/11 (e-mail) or Thursday 18/11 (paper)

1. Power-law inflation

Assume a RW universe containing gravity and a scalar field with a potential

$$V(\phi) = A e^{-\frac{\lambda}{M}\phi} \tag{1}$$

Show that this allows for power-law inflation with $a \sim t^p$ and $\ddot{a} > 0$, where p is a constant you have to determine.

If possible, deliver a paper copy, handwritten is ok. Otherwise, e-mail to ingunnkw@fys.uio.no