

Hydrogen

Self energy

$$\Delta E = 10.316793659(1) \frac{\alpha}{\pi} \alpha^4 mc^2$$

Hänsch et al.

$$\nu_{2S-1S} = 2\,466\,061\,413\,187\,103\,(46) \text{ Hz}$$

$$R_{\infty} = 10\,973\,731.568\,549\,(83) \text{ m}^{-1}$$

$$R_{\infty} \sim \alpha^2$$

Time-dependence of α ?