$$\vec{F} \quad = \quad q\ (\vec{v} \times \vec{B})$$

$$N(E)\, dE \quad = \quad C E^{-p}\, dE$$

$$\text{Power } P(\nu) \quad \propto \quad \nu^{-(p-1)/2}$$

$$S(\nu) \quad \propto \quad \nu^{-(p-1)/2}$$

$$S(\nu) \quad = \quad K\, \nu^{-\alpha}$$

$$E(n) \quad = \quad -13.6 \text{ eV} \ \left(\frac{1}{n^2}\right)$$

$$\mathrm{J = N \ \rightarrow \ J = N - 1} \qquad \nu \quad = \quad 2N\ (57.8975\,\mathrm{GHz})$$

$$\text{21 cm transition} \qquad \Delta E \quad = \quad 5.874\, \mu eV$$