$$\frac{\partial M_x(t)}{\partial t} = \gamma\left(\boldsymbol{M(t)} \times \boldsymbol{B(t)}\right)_x - \frac{M_x(t)}{T_2^*} \tag{1a}$$

$$\frac{\partial M_y(t)}{\partial t} = \gamma\left(\boldsymbol{M(t)} \times \boldsymbol{B(t)}\right)_y - \frac{M_y(t)}{T_2^*} \tag{1b}$$

$$\frac{\partial M_z(t)}{\partial t} = \gamma\left(\boldsymbol{M(t)} \times \boldsymbol{B(t)}\right)_z - \frac{M_z(t)}{T_1} \tag{1c}$$

$$[A] = \frac{10^{5.006+\alpha+\beta/T}}{k_B T} \tag{2}$$

$1/\Delta\omega$ **M haha**

	^{4}He	^{3}He	Temp. depen.	N_2	Temp. depen.
D_1 full width (GHz/amg)	18.0±0.2	18.7±0.3	$T^{0.05\pm0.05}$	17.8±0.3	$T^{0.3}$
D_1 line shift (GHz/amg)	4.3±0.1	5.64±0.15	$T^{1.1\pm0.1}$	-8.25±0.15	$T^{0.3}$

The energy levels of ^{87}Rb are shown in Fig. 1. where Γ_A is the pressure dependent FWHM, $\Gamma_A \approx 0.04 nm/amg \cdot [^3He]$.

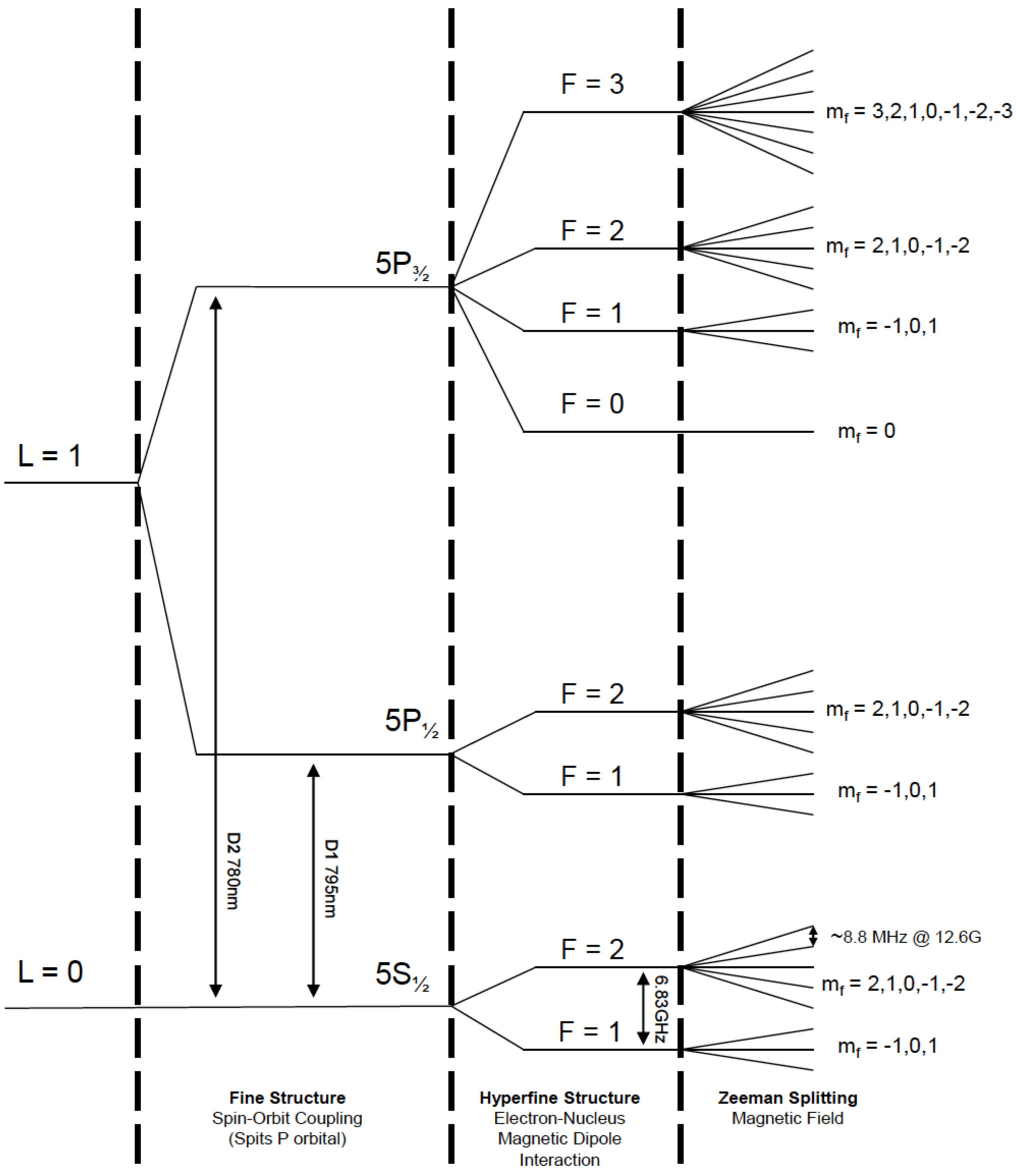

Figure 1: Level Diagram of ^{87}Rb. The splittings are not to scale. Adapted from Dolph's PhD thesis.

Bibliography