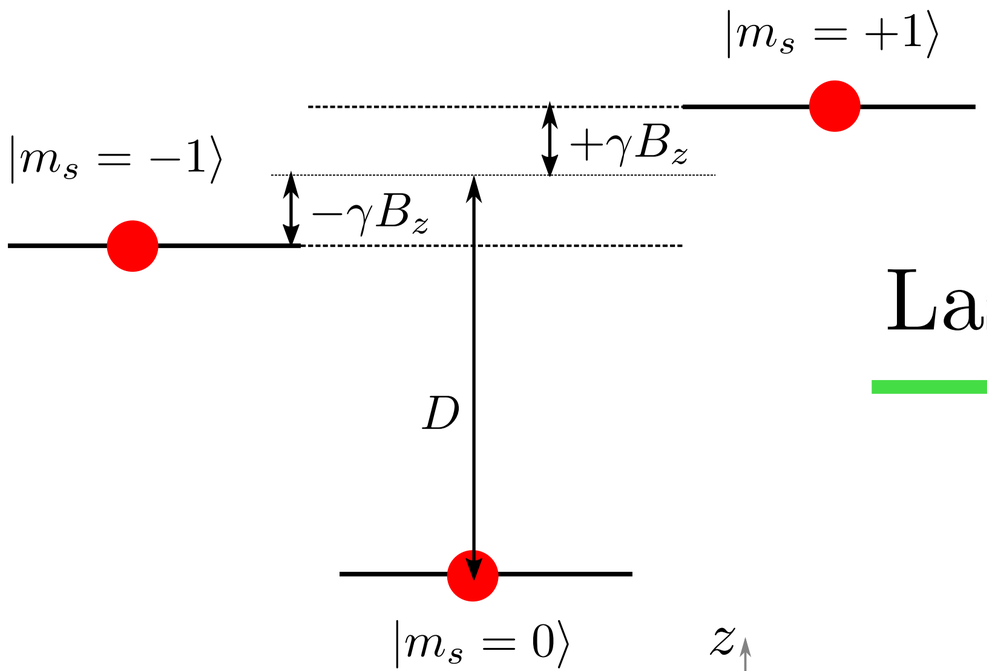
$D = 2.87$ GHz (dipolar interaction between the two unpaired electrons)

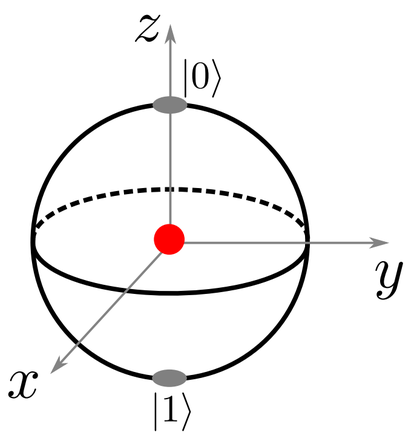
$\gamma B_z \approx 100$ MHz for usual magnetic fields

$k_B T = 6.28$ THz at 300 K

Thermal equilibrium

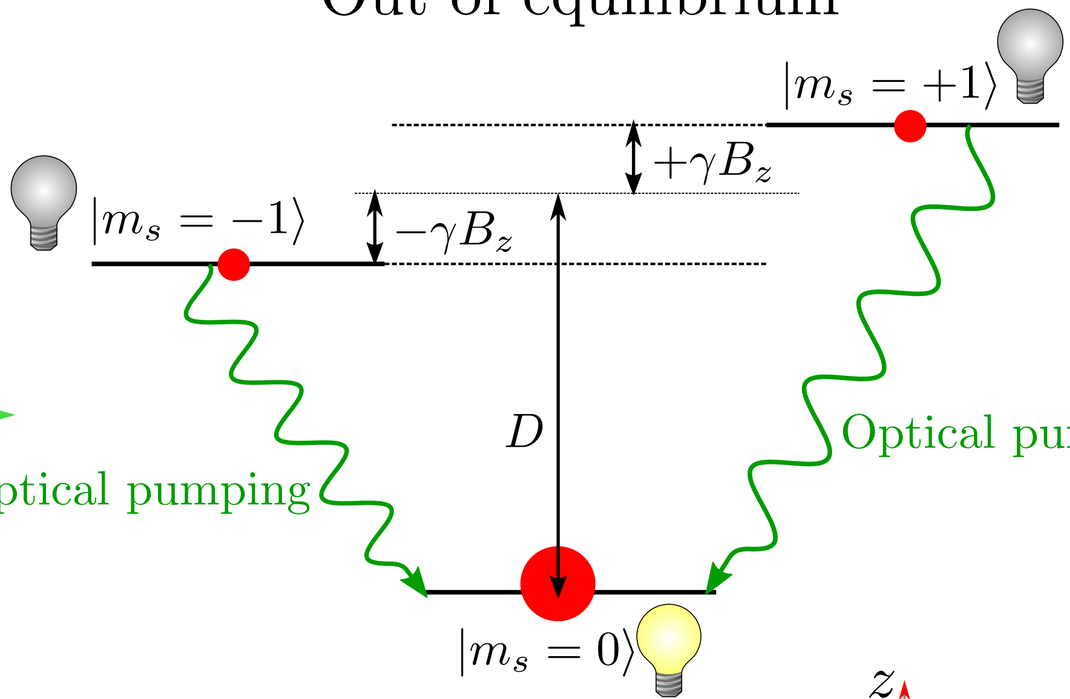


$$\hat{\rho} = \begin{pmatrix} 0.33 & 0 & 0 \\ 0 & 0.33 & 0 \\ 0 & 0 & 0.33 \end{pmatrix}$$



Laser ON

Out of equilibrium



$$\hat{\rho} = \begin{pmatrix} 0.05 & 0 & 0 \\ 0 & 0.9 & 0 \\ 0 & 0 & 0.05 \end{pmatrix}$$