# Le titre

 $6~\mathrm{mai}~2022$ 

#### Section 1 1

### Subsection 1

## Appendix

## The $NV^-$ center ground sate spin Hamiltonian

The most general expression of the  ${\rm NV^-}$  ground state spin Hamiltonian can be written as :

$$\mathcal{H}_{NV} = DS_z^2 + \mathcal{H}_{\text{mag}} + + \mathcal{H}_{\text{HF}} + \mathcal{H}_{\text{elec}} + \mathcal{H}_{\text{strain}}$$
 (1)

Where:

- $$\begin{split} & D = 2.87 \text{ GHz is the zero field splitting} \\ & \mathcal{H}_{\text{mag}} = \gamma_e \vec{B} \cdot \vec{S}, \, \gamma_e = 2.8 \text{ MHz/G} \end{split}$$