Wigner-Weisskopf for to atomer og fri vakuum

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June 18, 2024

Følger Deutsch' udledning. [1]

$$\hat{H} = 2\pi\gamma_{NV} S_z B_z = \pi\hbar\gamma_{NV} B_z \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} \tag{1}$$

Eigenstates: $|0\rangle, |1\rangle$

$$\hat{H} = 2\pi\gamma_{NV}(S_z B_z + S_x B_x) = \pi\hbar\gamma_{NV} \left[B_z \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} + B_x \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix} \right] \tag{2}$$

$$|\psi\rangle = \sum_{j=1}^{N} c_j |e_j\rangle \tag{3}$$

$$\hat{H}_{eff} |\psi_\xi\rangle = \lambda_\xi |\psi_\xi\rangle \tag{4}$$

[1] Deutsch - Spontaneous Emission: Wigner-Weisskopf Theory