cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1

cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1

$$\hat{H} cc1 \hat{H} cc1 \text{s} cc1 \hat{H} cc1 \text{E} cc1 \hat{H} cc1 \text{SE} cc1 \tag{1}$$

cc 1$\hat{H}_{\mathrm{E}}$ cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1$\hat{H}_{\mathrm{S}} = \Omega \mathbf{h} \cdot \hat{\boldsymbol{\sigma}}$ cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1

$$\hat{H}_{\mathrm{SE}} = \chi(t) \boldsymbol{\alpha} \cdot \hat{\boldsymbol{\sigma}} \otimes \hat{O}. \tag{2}$$

cc 1$\mathbf{h} \cdot \hat{\boldsymbol{\sigma}}$ cc 1$\boldsymbol{\alpha} \cdot \hat{\boldsymbol{\sigma}}$ cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1$\mathbf{h}$ cc 1$\boldsymbol{\alpha}$ cc 1 cc 1 cc 1$\hat{O}$ cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1

cc 1$\chi(t)$ cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1$\chi$ cc 1 cc 1 cc 1 cc 1 cc 1 cc 1 cc 1