$$\hat{\sigma}^0 = \mathbb{1} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \qquad \hat{\sigma}^1 = \hat{\sigma}^{\mathrm{x}} = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$$

$$\hat{\sigma}^2 = \hat{\sigma}^{\mathrm{y}} = \begin{pmatrix} 0 & -i \\ i & 0 \end{pmatrix} \qquad \hat{\sigma}^3 = \hat{\sigma}^{\mathrm{z}} = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$$

$$\left\{ \hat{\sigma}_l^{\alpha}, \hat{\sigma}_l^{\beta} \right\} = 2 \cdot \delta_{\alpha,\beta}$$

$$\left[\hat{\sigma}_l^{\alpha}, \hat{\sigma}_m^{\beta} \right] = 2 \cdot i \cdot \varepsilon_{\alpha,\beta,\gamma} \cdot \delta_{l,m} \cdot \hat{\sigma}_l^{\gamma}$$