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

$$\hat{\sigma}^2 = \hat{\sigma}^y = \begin{pmatrix} 0 & -i \\ i & 0 \end{pmatrix}$$

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

$$\hat{\sigma}^3 = \hat{\sigma}^z = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$$

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