$$\begin{aligned} & \left[\hat{\mathbf{h}}_{l}, \hat{\mathbf{h}}_{m} \right] = 0 \\ & \left[\hat{\mathbf{h}}_{l}^{\dagger}, \hat{\mathbf{h}}_{m}^{\dagger} \right] = 0 \\ & \left[\hat{\mathbf{h}}_{l}, \hat{\mathbf{h}}_{m}^{\dagger} \right] = \left(1 - 2 \cdot \hat{\mathbf{h}}_{m}^{\dagger} \hat{\mathbf{h}}_{m} \right) \cdot \delta_{l,m} \end{aligned}$$

 $\forall n \in \mathbb{N}$

 $\left(\hat{\mathbf{h}}_l^{\dagger}\hat{\mathbf{h}}_l\right)^n = \hat{\mathbf{h}}_l^{\dagger}\hat{\mathbf{h}}_l$