

$$\overset{\circ}{\mathcal{U}}|\mathbb{1} = \frac{\mathcal{L} \in \mathcal{U}|\mathbb{1}}{\dim \mathcal{L}|\mathbb{1} < \infty} \underset{\text{*ideal}}{\subset} \mathcal{U}|\mathbb{1}$$

$$\begin{aligned} \mathcal{L} \in \overset{\circ}{\mathcal{U}}|\mathbb{1} &\Rightarrow \mathcal{L}|\mathbb{1} \subset \mathbb{1} \Rightarrow \mathbb{1} = \mathcal{L}|\mathbb{1} \times \overbrace{\mathcal{L}|\mathbb{1}}^{\perp} = \mathcal{L}|\mathbb{1} \times \text{Ker } \mathcal{L}^* \\ &\Rightarrow \mathcal{L}|\mathbb{1} = \mathcal{L}^* \perp \mathbb{1} \Rightarrow \dim \mathcal{L}^*|\mathbb{1} < \infty \Rightarrow \mathcal{L}^* \in \overset{\circ}{\mathcal{U}}|\mathbb{1} \end{aligned}$$