

$$\mathcal{A}_\vartheta = C^* \frac{U:V \text{ unit}}{UV = VU \mathbf{e}^{2\pi i \vartheta}}$$

$$U e_n = \mathbf{e}^{2\pi i \vartheta n} e_n$$

$$V e_n = e_{n+1}$$

$$\vartheta = p/q$$

$$U = \begin{array}{c|c|c|c|c|c} 0 & 1 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 1 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & \dagger & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 1 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 \\ \hline 1 & 0 & 0 & 0 & 0 & 0 \end{array}$$

$$V = \begin{array}{c|c|c|c|c} \mathbf{e}^{2\pi i 0/q} & 0 & 0 & 0 & 0 \\ \hline 0 & \mathbf{e}^{2\pi i 1/q} & 0 & 0 & 0 \\ \hline 0 & 0 & \dagger & 0 & 0 \\ \hline 0 & 0 & 0 & \mathbf{e}^{2\pi i (q-1)/q} & 0 \\ \hline 0 & 0 & 0 & 0 & \mathbf{e}^{2\pi i q/q} \end{array}$$

Spec $U + U^* + \lambda \underbrace{V + V^*}_{\text{Cantor}}$