

$$\underbrace{1|\mathfrak{J}} \text{ basis} \Leftrightarrow \bar{\mathfrak{J}} - \mathfrak{J} \in {}^n\mathbb{C}_n^{\mathbb{C}}$$

$$\begin{aligned} \frac{1}{1} \Big| \frac{0}{1} & \frac{1}{0} \Big| \frac{0}{\bar{\mathfrak{J}} - \mathfrak{J}} & \frac{1}{0} \Big| \frac{\mathfrak{J}}{1} &= \frac{1}{1} \Big| \frac{0}{\bar{\mathfrak{J}} - \mathfrak{J}} & \frac{1}{0} \Big| \frac{\mathfrak{J}}{1} &= \frac{1}{1} \Big| \frac{\mathfrak{J}}{\bar{\mathfrak{J}}} \\ \Rightarrow \bar{\mathfrak{J}} - \mathfrak{J} \in {}^n\mathbb{C}_n^{\mathbb{C}} &\Leftrightarrow \frac{1}{1} \Big| \frac{\mathfrak{J}}{\bar{\mathfrak{J}}} \text{ inv} &\Leftrightarrow \underbrace{1|\mathfrak{J}} \text{ basis} \end{aligned}$$

$${}^n\mathbb{C} \lhd \overline{\mathfrak{J}^{2n}\mathbb{Z}} \asymp {}^n\mathbb{C} \lhd \overline{1|\mathfrak{J}^{2n}\mathbb{Z}}$$

$$\text{rk } \mathfrak{J} = n \Rightarrow \mathfrak{J} \mathfrak{J}^{-1} = \mathfrak{J}|\mathfrak{J}$$

$$\text{perm } \mathfrak{J} \in {}^{2n}2_{2n}^{\mathbb{C}} \subset {}^{2n}\mathbb{Z}_{2n}^{\mathbb{C}} \colon \quad \mathfrak{J} \in {}^n\mathbb{C}_n^{\mathbb{C}}$$

$$\mathfrak{J} = \bar{\mathfrak{J}}^{-1} \mathfrak{J} \in {}^n\mathbb{C}_n \Rightarrow \mathfrak{J} = \underbrace{\mathfrak{J}|\mathfrak{J}} \mathfrak{J} = \mathfrak{J} \underbrace{1|\bar{\mathfrak{J}}^{-1}\mathfrak{J}} \mathfrak{J} = \mathfrak{J} \underbrace{1|\mathfrak{J}} \mathfrak{J}$$