

$$K' = O(Z_{\mathbb{R}})$$

$$\mathcal{S}_{\pm} = \mathbb{C}^{2^m}$$

$$a = 2m \text{ even} : \quad \varepsilon = 0$$

$$\mathcal{C}(Z_{\mathbb{R}}) = \mathbb{C}^{2^{2m+2}} = \mathbb{C}^{4^{m+1}} = \mathbb{C}^{2^{m+1}} \times \mathbb{C}^{2^{m+1}} \text{ simple}$$

$$\mathcal{S} = \mathbb{C}^{2^{m+1}} = \mathbb{C}^{2^m} \times \mathbb{C}^{2^m} = \mathcal{S}_+ \times \mathcal{S}_- \text{ double}$$

$$\mathcal{S}_{\pm} = \mathbb{C}^{2^m}$$

$$a = 2m + 1 \text{ odd} : \quad \varepsilon = 1$$

$$\mathcal{C}(Z_{\mathbb{R}}) = \mathbb{C}^{2^{2m+3}} = \mathbb{C}^{4^{m+1}} \times \mathbb{C}^{4^{m+1}} \text{ double}$$

$$\mathcal{C}_{\pm}(Z_{\mathbb{R}}) = \mathbb{C}^{4^{m+1}} = \mathbb{C}^{2^{m+1}} \times \mathbb{C}^{2^{m+1}} \text{ simple}$$

$$a = 1 \Rightarrow \mathcal{C}(Z_{\mathbb{R}}) \underset{\text{double}}{=} \mathbb{C}^8 = \mathbb{C}^4 \times \mathbb{C}^4 : \quad \mathcal{C}_{\pm}(Z_{\mathbb{R}}) = \mathbb{C}^4 \underset{\text{simple}}{=} \mathbb{C}^2 \times \mathbb{C}^2 \Rightarrow \mathcal{S} = \mathbb{C}^2$$

$$a = 2 \Rightarrow \mathcal{C}(Z_{\mathbb{R}}) \underset{\text{simple}}{=} \mathbb{C}^{16} = \mathbb{C}^4 \times \mathbb{C}^4 \Rightarrow \mathcal{S} = \mathbb{C}^4 \underset{\text{double}}{=} \mathbb{C}^2 \times \mathbb{C}^2 = \mathcal{S}_+ \times \mathcal{S}_-$$

$$a = 4 \Rightarrow \mathcal{C}(Z_{\mathbb{R}}) \underset{\text{simple}}{=} \mathbb{C}^{64} = \mathbb{C}^8 \times \mathbb{C}^8 \Rightarrow \mathcal{S} = \mathbb{C}^8 \underset{\text{double}}{=} \mathbb{C}^4 \times \mathbb{C}^4 = \mathcal{S}_+ \times \mathcal{S}_-$$