

$\vartheta: \varrho$  Majorana-Weyl handed

$$\mathbb{R}^{1:1} \xrightarrow[\begin{smallmatrix} \vartheta: \varrho \\ X^\mu \end{smallmatrix}]{\vartheta: \varrho} \mathbb{R}^{1:d|1}$$

$$\mathcal{L}(X^\mu: \vartheta: \varrho) = \underbrace{\partial_i X^\mu - \bar{\vartheta} \Gamma^\mu \partial_i \vartheta}_{\eta_{\mu\nu}} \underbrace{\partial_j X^\nu - \bar{\vartheta} \Gamma^\nu \partial_j \vartheta} + \overbrace{\varepsilon^{ij} \bar{\vartheta} \Gamma^\mu \partial_i \vartheta \eta_{\mu\nu} \bar{\varrho} \Gamma^\nu \partial_j \varrho - i \partial_i X^\mu \eta_{\mu\nu} \bar{\vartheta} \Gamma^\nu \partial_j \vartheta - \bar{\varrho} \Gamma^\nu \partial_j \varrho}^{\quad}$$

$$\mathcal{L}(X^\mu: \vartheta) = \int_{\mathbb{R}^{1:1}}^{d\sigma d\tau} \mathcal{L}(X^\mu: \vartheta)$$

$$= \int_{\mathbb{R}^{1:1}}^{d\sigma d\tau} \underbrace{\partial_i X^\mu - \bar{\vartheta} \Gamma^\mu \partial_i \vartheta}_{\eta_{\mu\nu}} \underbrace{\partial_j X^\nu - \bar{\vartheta} \Gamma^\nu \partial_j \vartheta} + \overbrace{\varepsilon^{ij} \bar{\vartheta} \Gamma^\mu \partial_i \vartheta \eta_{\mu\nu} \bar{\varrho} \Gamma^\nu \partial_j \varrho - i \partial_i X^\mu \eta_{\mu\nu} \bar{\vartheta} \Gamma^\nu \partial_j \vartheta - \bar{\varrho} \Gamma^\nu \partial_j \varrho}^{\quad}$$