

$$\text{dof } \sigma_{\mathcal{H}}: \mu_{\sigma} \mathcal{H} \in {}_d \mathbb{K} \times {}_{dd} \mathbb{K}$$

$$x^{\nu}: \mathcal{H}: \mathcal{H} \in \mathbb{R}^d \times {}^N \mathbb{R} \times {}_d^N \mathbb{R} \xrightarrow[\text{Max}]{\mathcal{L}} \mathbb{R} \ni {}^x \mathcal{L}_{\mathcal{H}: \mathcal{H}}$$

$${}^x \mathcal{L}_{\mathcal{H}: \mathcal{H}} = \overline{\mu^{\nu} \mathcal{H} - \nu^{\mu} \mathcal{H}} \eta^{\mu\alpha} \eta^{\nu\beta} \overline{\alpha^{\mathcal{H}} - \beta^{\mathcal{H}}}$$

$$\text{vector field } \mathbb{R}^d \xrightarrow{\sigma_{\mathcal{H}}} {}_d \mathbb{R} \ni {}^x \sigma_{\mathcal{H}}$$

$${}^x \mathcal{L}_{\mathcal{H}} = {}^x \mathcal{L}_{x_{\mathcal{H}}: x_{\mathcal{H}}} = \overline{\mu^{\nu} \mathcal{H} - \nu^{\mu} \mathcal{H}} \eta^{\mu\alpha} \eta^{\nu\beta} \overline{\alpha^{\mathcal{H}} - \beta^{\mathcal{H}}}$$