non-linear metric

$$ {}^{xy}\mathcal{D}_{mn} = \left.\begin{array}{c|c} {}^{x}\mathcal{A}_{\mu\nu}{}^{y}\mathcal{H} & {}^{x}\mathcal{V}_{\mu}{}^{ay}\mathcal{B}^{j}\dfrac{\partial}{\partial y^{j}} \\ \hline {}^{y}\mathcal{V}_{\nu}{}^{ay}\mathcal{B}^{i}\dfrac{\partial}{\partial y^{i}} & {}^{x}\mathcal{O}_{b}{}^{by}g_{ij} \end{array}\right. $$

$$ \begin{cases} \mathcal{A} & \\ \mathcal{V}^{a} & \text{iso } Y \\ \mathcal{O}^{b} & T_g(\text{ Ric } Y) = \text{ ker } \Delta_g^L \end{cases} $$

H holonomy metric $\Longrightarrow$ vac Einstein $R_{ij} = 0$

Lichne $\Delta_g^L \gamma_{ij} = -\nabla_g^2 \gamma_{ij} - 2 R^g_{imjn} \gamma^{mn} + 2\, {}_gR^k_i \gamma_{jk} = 0$