$$\mathbb{R}^4 \times \hbar^7$$

$$m \in 7$$

$$\Gamma_a \ast \Gamma_b = -2\,\delta_{ab}$$

unbroken supersymmetries=Killing spinors=holonomy inv spinors

$$\widetilde{D}_m = \partial_m - \frac{1}{4}\,\omega_m^{ab}\left(\Gamma_a\Gamma_b - \Gamma_b\Gamma_a\right) - \frac{1}{2}\,e_m^a\,\Gamma_a \text{ connexion}$$

$$\widetilde{D}_m\psi = \underbrace{\partial_m - \frac{1}{4}\omega_m^{ab}\left(\Gamma_a\Gamma_b - \Gamma_b\Gamma_a\right) - \frac{1}{2}e_m^a\Gamma_a}\psi = 0$$

$$\widetilde{D}_m \ast \widetilde{D}_n = -\frac{1}{4}\,C_{mn}^{ab}\left(\Gamma_a\Gamma_b - \Gamma_b\Gamma_a\right) \text{ holonomy}$$

$$\widetilde{D}_m \ast \widetilde{D}_n\psi = 0 \text{ holonomy inv spinors}$$

$$\frac{+10|1}{+2|4} \xrightarrow[\mathbb{S}^1]{\mathbb{S}^1} \frac{+9,|1}{+1}$$

$$\frac{+10|1}{+2|4} \xrightarrow[\mathbb{S}^1/2]{\mathbb{S}^1/2} \frac{+9|h}{+1}$$

$$\frac{+10|1}{+5|} \xrightarrow[\mathbb{T}^4]{\mathbb{T}^4} \frac{+6,|1}{+1}$$

$$\frac{+10|1}{+5|} \xrightarrow[K3]{K3} \frac{+6|h}{+1}$$

$$\frac{+10|1}{+2|4} \xrightarrow{\mathbb{S}^1} \frac{+9,|1}{+\underline{2}}$$

$$\frac{+10|1}{+5|} \xrightarrow[\mathbb{S}^1]{\mathbb{S}^1} \frac{+9,|1}{+42}$$