

$$\mathbb{M}\in \mathbb{R}\mathbb{\Delta}_{\infty}^0\text{ cpt}$$

$$\dim \mathbb{M}=1+2$$

$$\mathbb{M}\mathbb{\Delta}_{\bullet}\underbrace{\mathbb{M}\mathbb{\Delta}\mathbb{h}}_{\mathbb{h}}=\mathbb{M}\mathbb{\Delta}_{\infty}\underbrace{\mathbb{M}\mathbb{\Delta}\mathbb{h}}_{\mathbb{h}}/\text{ gauge trafos}$$

$$\mathbb{M}\mathbb{\Delta}_{\bullet}^{\#}\underbrace{\mathbb{M}\mathbb{\Delta}\mathbb{h}}_{\mathbb{h}}=\int\limits_{d\mathbb{A}}^{\mathbb{M}\mathbb{\Delta}_{\bullet}\underbrace{\mathbb{M}\mathbb{\Delta}\mathbb{h}}_{\mathbb{h}}}\exp\frac{ik}{4\pi}\int\mathcal{L}_{\mathbb{A}}$$

$$\mathbb{H}^0\mathbb{\Delta}_{\bullet}^{\#}\underbrace{\mathbb{H}^{\theta}\mathbb{\Delta}^2\mathbb{C}_2^{\theta}}_{\mathbb{h}}=\sqrt{\frac{2}{k+2}}\sin\left(\frac{\pi}{k+2}\right)$$