

Duff/146

M2 brane

$$t \overset{2}{x} \overset{1}{x} r$$

$$t : x \mathfrak{X}^M$$

$$*d\mathcal{X} = d^7 \overset{1}{x}$$

$$\boxed{\mathfrak{X}|\theta} = \frac{1}{2} - \frac{1}{2} u \mathfrak{X}_{ij} \overset{u}{i} \theta^M \overset{u}{j} \theta^N \overset{u}{MN} \mathbb{N} - \overset{u}{\theta \times \mathfrak{X}}$$

$$2+\text{brane} \int_{\Sigma^{+2}} \varepsilon^{ijk} \overset{\theta}{i} \theta^\lambda \overset{\theta}{j} \theta^\mu \overset{\theta}{k} \theta^\nu \overset{\theta}{\lambda\mu\nu} \mathfrak{X}$$

M5 brane

$$t \overset{5}{y} \overset{1}{y} r$$

$$t y \mathfrak{X}^M$$

$$d\mathcal{X} = d^4 \overset{1}{y}$$

$$5+\text{brane} \int_{\Sigma^{+5}} \varepsilon^{i_0 \dots i_5} \overset{\theta}{i_0} \theta^{\mu_0} \dots \overset{\theta}{i_5} \theta^{\mu_5} \overset{\theta}{\mu_0 \dots \mu_5} \mathfrak{X}$$

Imamura

$$\boxed{\theta}_{M2} = g_2 \theta \times \mathfrak{X}$$

$$\boxed{\theta}_{M5} = g_5 \theta \times \overline{\mathfrak{X}}$$

$$g_2 = \ell_s^{3/2}$$

$$g_5 = \ell_s^{-3/2}$$