

Smith

IIB D branes

$$d = 10$$

$$4\pi \kappa^2 = (2\pi\ell)^8$$

$$\text{ev } p + q = 8$$

$$(2\pi\ell)^p \mathcal{D}_p^- (2\pi\ell)^q \mathcal{D}_q^- = n \in \mathbb{Z}$$

RR fields $\mathcal{F} \mathcal{Z} \mathcal{A}$

RR field strength dual coupling

$$\mathcal{F}_- \sim \begin{cases} D_0^- & \text{D instanton} \\ D_8^- \end{cases}$$

$$\mathcal{Z}_- - \mathcal{F} \mathcal{Z}_- \sim \begin{cases} D_2^- \\ D_6^- \end{cases}$$

$$\mathcal{A}_- + \frac{\mathcal{Z}_- - \mathcal{Z}}{2} \mathcal{Z}_- \sim \begin{cases} D_4^- \\ D_4^- \end{cases}$$

$$\begin{cases} D_{-2}^- \\ D_{10}^- \end{cases} \text{ space-time filling}$$

$$16 * D_{10}^- - O_{10}^- \text{ equiv type I}$$