

$$\mathbb{O}_{p:q} \times \mathbb{H} \subset \mathbb{R}^{p+q} \times \mathbb{H}$$

ps-metr

$$\mathbb{O}_{p:q} \times \mathbb{H} = \bigcup_{\alpha} \mathbb{O}_{p:q} \times \mathbb{H}_{\alpha} \times \alpha \text{ int}$$

$$\underbrace{\mathbb{O}_{\alpha}}_{\tilde{\alpha}} = \underbrace{\mathbb{O}_{\beta}}_{\tilde{\beta}}$$