

$\mathbb{C}^d \supset \mathcal{H}$ bd domain

$$\mathcal{U} \in \overline{\Delta}_{\omega}^{\mathcal{H}}$$

$$\text{Def}_{0 \leq j} \text{ iterates } \begin{cases} \mathcal{U}^0 & = \mathcal{U} \\ \mathcal{U}^{j+1} & = \mathcal{U} \times \mathcal{U}^j \end{cases}$$

$${}^o\mathcal{U} = o \in \mathcal{H} \Rightarrow \begin{cases} {}^o\mathcal{U}^j = {}^o\mathcal{U}^j \\ \frac{\det {}^o\mathcal{U}}{\det {}^o\mathcal{U}^j} \leq 1 \\ \det {}^o\mathcal{U}^j = 1 \Rightarrow \mathcal{U} \text{ bihol} \\ {}^o\mathcal{U} = \iota \Rightarrow \mathcal{U} = \iota \end{cases}$$

$$\mathcal{H} \text{ bes strict ps-convex } \mathcal{U} \in \mathcal{U} | \mathcal{H} \Rightarrow \bigvee_{\text{smooth ext}} \tilde{\mathcal{U}} \in \mathcal{U} | \bar{\mathcal{H}}$$

$$\begin{cases} {}^o\tilde{\mathcal{U}} = o \in \partial \mathcal{H} \\ {}^o\tilde{\mathcal{U}} = \iota \end{cases} \Rightarrow \mathcal{U} = \iota$$

$$\mathcal{H} \neq \text{ball} \Rightarrow \mathcal{U} | \mathcal{H} \text{ cpt}$$