

$$\mathbb{H}_{\infty}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n = d \mathbb{H}_{\infty}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^{n^-}$$

$$\downarrow i$$

$$\mathbb{H}_{\infty}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n$$

$$\downarrow j$$

$$\mathbb{H}_{\infty}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n = \mathbb{H}_{\infty}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n \sqcup \mathbb{H}_{\infty}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n$$

$$\mathbb{H}_{\uparrow}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n \ni \mathfrak{A} \text{ loc int} \Leftrightarrow \bigwedge_o \bigvee_{o \in U \subset \mathbb{H}} \bigvee \mathfrak{A} \in U \mathbb{H}_{\uparrow}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^{n^-} : \mathfrak{A} \stackrel{U}{=} d\mathfrak{A}$$

$$\mathbb{H}_{\uparrow}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^n \ni \mathfrak{A} \text{ int} \Leftrightarrow \bigvee \mathfrak{A} \in \mathbb{H}_{\uparrow}^{\mathbb{H}} \mathbb{H}^{\mathbb{H}} \mathbb{K}^{n^-} : \mathfrak{A} = d\mathfrak{A}$$