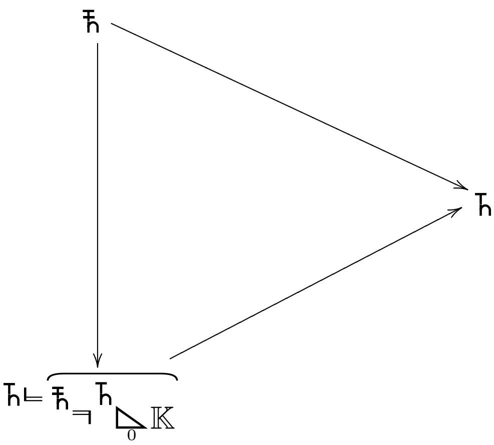
$$Ћ \in \mathbb{K}◺_{0}^{\omega}$$

$$\bar{Ћ} \underset{\text{ex}}{\sqsubseteq} Ћ \Leftrightarrow$$



$$Ћ_i \underset{\text{ex}}{\sqsubseteq} Ћ \Longrightarrow \bigcap_i Ћ_i \underset{\text{ex}}{\sqsubseteq} Ћ$$

$$\dot{Ћ} \underset{\text{ex}}{\sqsubseteq} Ћ \Longrightarrow Ћ \cup Ћ' \underset{\text{ex}}{\sqsubseteq} Ћ$$

$$\overline{\bar{Ћ}} = Ћ \vDash \overbrace{\bar{Ћ}_{\neg} Ћ◺_{0}^{\omega} \mathbb{K}}$$

$$A_0 \subset Ћ \supset A_1$$

$$A_0 \cap A_1 = \varnothing \Longrightarrow \begin{cases} \bigvee ʔ \in Ћ◺_0 \mathbb{I} \\ {}_{A_j}ʔ = j \end{cases}$$

$$\bigwedge_{r}^{\mathbb{Q} \cap {}_0\overset{\mathbb{R}}{\llcorner\lrcorner}_1} \bigvee_{U_r \subset \hbar} A_0 \subset U_r \Subset \hbar \llcorner A_1$$

$$r < s \Rightarrow U_r \Subset U_s$$

$$r_0 = 0 : r_1 = 1 \Rightarrow \bigvee A_0 \subset U_0 \Subset U_1 \Subset \hbar \llcorner A_1$$

$$\mathbb{Q} \cap {}_0\overset{\mathbb{R}}{\llcorner\lrcorner}_1 = \{ r_2 : r_3 \cdots \}$$

$$\text{chosen } U_{r_0} \cdots U_{r_{n-1}} \Rightarrow r_n \notin \frac{r_k}{k \in n} \Rightarrow \bigvee_{i:j \in n} \begin{cases} r_i = \curlyvee^{< r_n} r_k \\ r_j = \curlywedge^{> r_n} r_k \end{cases}$$

$$\Rightarrow r_i < r_j \Rightarrow U_{r_i} \Subset U_{r_j} \Rightarrow \bigvee U_{r_i} \Subset U_{r_n} \Subset U_{r_j}$$

$$\gamma_r = r \chi_{\hbar \llcorner \hat{U}_r} \ \underline{\text{stet}} \Rightarrow \hbar \xrightarrow[\underline{\text{stet}}]{\underline{\gamma} = \curlyvee_r \gamma_r} {}_{-1}\overset{\mathbb{R}}{\llcorner\lrcorner}_1$$

$$\gamma^s = s \chi_{U_s} + \chi_{\hbar \llcorner U_s} = s + (1 - s) \chi_{\hbar \llcorner U_s} \ \overline{\text{stet}} \Rightarrow \hbar \xrightarrow[\overline{\text{stet}}]{\bar{\gamma} = \curlywedge_s \gamma^s} {}_{-1}\overset{\mathbb{R}}{\llcorner\lrcorner}_1$$

$$\underline{\gamma} = \bar{\gamma} = \gamma \ \text{stet}$$

$$\lightning \bigvee_x^{\hbar} {}^x\underline{\gamma} > {}^x\bar{\gamma} \Rightarrow \bigvee_{r:s} {}^x\gamma_r > {}^x\gamma^s \Rightarrow x \in U_s \llcorner \hat{U}_r$$

$$r > s \Rightarrow U_r \supset \hat{U}_s \ \lightning$$

$$\lightning \bigvee_x^{\hbar} {}^x\underline{\gamma} < {}^x\bar{\gamma} \Rightarrow \bigvee_{r:s} {}^x\gamma_r \leqslant {}^x\underline{\gamma} < r < s < {}^x\bar{\gamma} \leqslant {}^x\gamma^s \Rightarrow x \in \hat{U}_r \llcorner U_s$$

$$\hat{U}_r \subset U_s \ \lightning$$

$$\text{ɿ}^{A_j} = j$$

$$x \in A_0 \Longrightarrow \bigwedge_{r:s} x \in U_s \Longrightarrow {}^{x}\text{ɿ} = \curlywedge_{s} {}^{x}\text{ɿ}^{s} = \curlywedge_{s} s = 0$$

$$x \in A_1 \Longrightarrow \bigwedge_{r:s} x \in \hbar\llcorner \hat{U}_r \Longrightarrow {}^{x}\text{ɿ} = \curlyvee_{r} {}^{x}\text{ɿ}_{r} = \curlyvee_{r} r = 1$$