

$$\mathbb{C} \supset \mathfrak{h} \ni a \curvearrowright \nu_a \in \mathbb{Z}$$

$$\text{discrete Trg } A = \begin{cases} a \in \mathfrak{h} \\ 0 \neq \nu_a \end{cases} \subset \mathfrak{h}$$

$$\Rightarrow \bigvee_{\nu \text{ adapted}} \begin{cases} 0 \neq \mathfrak{I} \in \mathfrak{h}_{\vartriangleleft_{\varpi}^{\div}} \mathbb{C} \\ \bigwedge_a^{\mathfrak{h}} \deg_{\vartriangleleft_a} \mathfrak{I} = \nu_a \end{cases} \quad \deg_{\vartriangleleft} \mathfrak{I} = \nu$$

$$\begin{cases} \bigwedge_{\mathfrak{h}}^{\mathfrak{h} \perp A} \deg_{\vartriangleleft_{\mathfrak{h}}} \mathfrak{I} = 0 & ? \\ \bigwedge_{a \in A} \deg_{\vartriangleleft_a} \mathfrak{I} = \nu_a & \deg_{\vartriangleleft} \mathfrak{I} \restriction_A = \nu \restriction_A \end{cases}$$

$$\bigvee_{\text{cpt}} K = \widehat{K}^{\mathfrak{h}} \subset \mathfrak{h} = \bigcup_{K \in \mathcal{K}} K$$

$$K \subset \widehat{K^+}$$

$$K^0 = \varnothing$$

$$\bigvee_{K \in \mathcal{K}} \begin{cases} \mathfrak{I}^K \in \bar{\mathbb{C}}_{\vartriangleleft_m^{\div}} \mathbb{C} & \deg_{\vartriangleleft} \overleftarrow{\mathfrak{I}^K} = \nu \\ \bigvee \ell_K \in K \vartriangleleft_{\varpi} \mathbb{C} & \frac{\mathfrak{I}^{K^+}}{\mathfrak{I}^K} = \exp \ell_K \end{cases}$$

$$j=0: \quad \mathfrak{I}^0=1$$

$$K \in \mathcal{K} \curvearrowright j+1: \quad A \cap K^+ \text{ finit} \Rightarrow \prod_a^{A \cap K^+} \overline{z-a}^{\nu_a} \in \bar{\mathbb{C}}_{\vartriangleleft_m^{\div}} \mathbb{C}$$

$$\deg_{\vartriangleleft}^{K^+} \prod_a^{A \cap K^+} \overline{z-a}^{\nu_a} = \nu \Rightarrow \deg_{\vartriangleleft}^K \frac{\prod_a^{A \cap K^+} \overline{z-a}^{\nu_a}}{\mathfrak{I}^K} = \deg_{\vartriangleleft}^K \prod_a^{A \cap K^+} \overline{z-a}^{\nu_a} - \deg_{\vartriangleleft}^K \mathfrak{I}^K = \nu - \nu = 0$$

$$\Rightarrow \bigvee_{\text{fin } B_K \subset \mathbb{C} \perp K} \bigvee_{B_K \ni b \curvearrowright m_b \in \mathbb{Z}} \frac{\prod_a^{A \cap K^+} \overline{z-a}^{\nu_a}}{\mathfrak{I}^K} = c \prod_b^{B_K} \overline{z-b}^{m_b}$$

$$\bigwedge_b^{B_K\mathbb{C}\lrcorner K^+}\bigvee_{\dot{b}}\bigvee\mathfrak{l}_b\in^{0:\mathbb{H}:1}\bigtriangleup_{\infty}b:\mathbb{C}\lrcorner K:\dot{b}$$

$$\text{If } b\in \mathbb{C}\lrcorner K^+:\dot{b}=b$$

$$\text{If } b\in K^+\lrcorner K:\mathfrak{h}\lrcorner K \text{ has no comp } \lhd \mathfrak{h} \Rightarrow \mathfrak{h}\lrcorner^b K \not\sqsubset \mathfrak{h} \Rightarrow \mathfrak{h}\lrcorner^b K \not\sqsubset K^+$$

$$\Rightarrow \bigvee \dot{b} \in \mathfrak{h}\lrcorner^b K \lrcorner K^+ \Rightarrow \bigvee \left\{ \begin{array}{ll} \mathbb{H} \xrightarrow{\mathfrak{l}_b} \mathfrak{h}\lrcorner^b K & \subset \mathfrak{h}\lrcorner K \\ {}^0\mathfrak{l}_b = b & {}^1\mathfrak{l}_b = \dot{b} \end{array} \right.$$

$$\bar{\mathbb{C}}\lrcorner \mathfrak{l}_b^{\bar{}} \text{ prim}_1 \Rightarrow \exp^z \ell_b = \frac{z-b}{z-\dot{b}} \in \mathbb{C}^\times \bigvee \ell_b \in \bar{\mathbb{C}}\lrcorner \mathfrak{l}_b^{\bar{}} \bigtriangleup_{\omega} \mathbb{C} \quad \subset_{K \subset \bar{\mathbb{C}}\lrcorner \mathfrak{l}_b^{\bar{}}} \ell_b \in K \bigtriangleup_{\omega} \mathbb{C} \Rightarrow \ell_K = \sum_b^{B_K} m_b \ell_b \in K \bigtriangleup_{\omega} \mathbb{C}$$

$$\begin{array}{ccc} & & \mathbb{C} \\ & \nearrow^{\ell_b} & \downarrow \text{exp} \\ \bar{\mathbb{C}}\lrcorner \mathfrak{l}_b^{\bar{}} & & \overset{\times}{\mathbb{C}} \\ & \searrow_{\frac{z-b}{z-\dot{b}}} & \end{array}$$

$$\frac{\prod_a^{A\cap K^+}\overline{z-a}^{\nu_a}}{\mathfrak{z}^{K^+}}\stackrel{\text{Def}}{=}c\prod_b^{B_K}\overline{z-\dot{b}}^{m_b}\Rightarrow \mathfrak{z}^{K^+}\in \bar{\mathbb{C}}\bigtriangleup_m^{\div}\mathbb{C}\Rightarrow \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K}=\frac{\prod_a^{A\cap K^+}\overline{z-a}^{\nu_a}}{\mathfrak{z}^K}\frac{\mathfrak{z}^{K^+}}{\prod_a^{A\cap K^+}\overline{z-a}^{\nu_a}}$$

$$=\prod_b^{B_K}\overline{z-\dot{b}}^{m_b}\prod_b^{B_K}\left(z-\dot{b}\right)^{-m_b}=\prod_b^{B_K}\overline{\frac{z-b}{z-\dot{b}}}^{m_b}=\prod_b^{B_K}\overline{\exp^z\ell_b}^{m_b}=\exp\left(\sum_b^{B_K}m_b{}^z\ell_b\right)={}^z\ell_K\mathfrak{e}$$

$$\deg_{-}^{K^+}\frac{\prod_a^{A\cap K^+}\overline{z-a}^{\nu_a}}{\mathfrak{z}^{K^+}}=0 \text{ no zero/pole on } K^+ \Rightarrow \deg_{-}^{K^+}\mathfrak{z}^{K^+}=\deg_{-}^{K^+}\prod_a^{A\cap K^+}\overline{z-a}^{\nu_a}=\nu \text{ adapted}$$

$$K\bigtriangleup_{\omega}\mathbb{C}\overset{\varrho}{\longleftarrow}_{\text{hull oRUN}}\mathfrak{h}\bigtriangleup_{\omega}\mathbb{C}\Rightarrow\bigvee_{h_K}^{\mathfrak{h}\bigtriangleup_{\omega}\mathbb{C}}K\overline{\overset{\bullet}{\ell_K+h_K}}\leqslant\log\left(1+2^{-|K|}\right)$$

$$\Rightarrow \quad \frac{\overbrace{\mathfrak{z}^{K^+}}^K}{\mathfrak{z}^K}{}^{h_K\mathfrak{e}}-1 \;=\; \overbrace{\mathfrak{z}^{K^+}}^{K\overline{\ell_K+h_K\mathfrak{e}}-1} \leqslant \overbrace{\mathfrak{z}^{K^+}}^{K\overline{\ell_K+h_K\mathfrak{e}}-1} \leqslant 2^{-|K|}$$

$$\text{Def } \mathfrak{y} = \prod_{K \in \mathcal{K}} \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K}{}^{h_K\mathfrak{e}} \in \mathfrak{h}_{\bigtriangleup_w^\div} \mathbb{C}^\times$$

$$\bigwedge_a^{\mathfrak{h}} \deg^a_{-} \mathfrak{y} = \nu_a$$

$$\bigvee_{H \in \mathcal{K}} a \in \widehat{H}$$

$$K \supset H \Rightarrow \deg^H_{-} \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K} = \deg^H_{-} \mathfrak{z}^{K^+} - \deg^H_{-} \mathfrak{z}^K = \nu - \nu = 0 \Rightarrow \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K} \in \widehat{H}_{\bigtriangleup_w} \mathbb{C}^\times \Rightarrow \prod_{i \leqslant j} \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K}{}^{h_K\mathfrak{e}} \in \widehat{H}_{\bigtriangleup_w} \mathbb{C}^\times$$

$$\mathfrak{y} = \prod_j^i \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K}{}^{h_K\mathfrak{e}} \prod_{j \geqslant i} \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K}{}^{h_K\mathfrak{e}} = \mathfrak{z}^H \exp \left(\sum_j^i h_K \right) \prod_{K \supset H} \frac{\mathfrak{z}^{K^+}}{\mathfrak{z}^K}{}^{h_K\mathfrak{e}} \Rightarrow \deg^a_{-} \mathfrak{y} = \deg^a_{-} \mathfrak{z}^H = \nu_a$$