

$$\bigvee^{\mathbb{R}\underline{\mathbb{H}}_-} \max_{\text{abel}} \mathbb{R}\underline{\mathbb{H}}_-^\bullet \text{Int} \left( \mathbb{R}G_1 \right) \text{ eind}$$

$$0 \in \text{sing} \left( \mathbb{R}\underline{\mathbb{H}}_-^\bullet \right) = \frac{\mathfrak{t} = \mathbb{R}\underline{\mathbb{H}}_-^\bullet | \mathfrak{t}}{\mathfrak{t} \in \text{sing} \left( \mathbb{C}\underline{\mathbb{H}}_-^\bullet \right)} \text{ restricted roots}$$

$$\mathbb{R}\underline{\mathbb{H}} = \mathbb{R}\underline{\mathbb{H}}_-^\bullet \times \mathbb{R}\underline{\mathbb{H}}_+^\bullet \times \sum_{\mathfrak{t} \in \mathbb{R}\underline{\mathbb{H}}_-^\bullet} \mathbb{R}\underline{\mathbb{H}}_-^\bullet = \mathbb{R}\underline{\mathbb{H}}_1^\bullet \times \mathbb{R}\underline{\mathbb{H}}_-^\bullet \times \sum_{\mathfrak{t} \in \mathbb{R}\underline{\mathbb{H}}_-^\bullet} \mathbb{R}\underline{\mathbb{H}}_-^\bullet$$

$$\mathbb{R}\underline{\mathbb{H}}_-^\bullet = \mathbb{R}\underline{\mathbb{H}}_- \cap \sum_{\mathfrak{t} = \mathbb{R}\underline{\mathbb{H}}_-^\bullet | \mathfrak{t}} \mathbb{C}\underline{\mathbb{H}}_\mathfrak{t}^\bullet$$

$$\mathbb{R}\underline{\mathbb{H}}_0^\bullet = \mathbb{R}\underline{\mathbb{H}}_- \cap \sum_{0 = \mathbb{R}\underline{\mathbb{H}}_-^\bullet | 0} \mathbb{C}\underline{\mathbb{H}}_0^\bullet$$

$$\mathbb{R}\bar{\underline{\mathbb{H}}}^\bullet_- = \mathbb{R}\underline{\mathbb{H}}_-^\bullet \times \mathbb{R}\bar{\underline{\mathbb{H}}}^\bullet_+ = \mathbb{R}\underline{\mathbb{H}}_1^\bullet \times \mathbb{R}\bar{\underline{\mathbb{H}}}^\bullet_- \max_{\text{abel}} \mathbb{R}\bar{\underline{\mathbb{H}}}^\bullet_- = \mathbb{R}\bar{\underline{\mathbb{H}}}_1^\bullet \times \mathbb{R}\bar{\underline{\mathbb{H}}}_-^\bullet$$

$$\mathbb{R}\bar{\underline{\mathbb{H}}}_-^\bullet = \frac{\mathfrak{b} \in \mathbb{R}\underline{\mathbb{H}}_-}{\bigwedge_{\mathfrak{b} \in \mathbb{R}\bar{\underline{\mathbb{H}}}^\bullet_-} \mathfrak{b} * \mathfrak{b} = \mathfrak{b} \mathfrak{b}}$$

$$\mathfrak{t} \neq 0$$

$$\hookrightarrow : \mathfrak{b} = \sum_{\mathfrak{t} = \mathbb{R}\bar{\underline{\mathbb{H}}}^\bullet_- | \mathfrak{t}} \mathfrak{b}_\mathfrak{t} \Rightarrow \mathfrak{b} * \mathfrak{b} = \sum_{\mathfrak{t}} \mathfrak{b}_\mathfrak{t} * \mathfrak{b} = \sum_{\mathfrak{t}} \mathfrak{b} \mathcal{G} \mathfrak{b}_\mathfrak{t} = \sum_{\mathfrak{t}} \mathfrak{b} \mathfrak{g} \mathfrak{b}_\mathfrak{t} = \mathfrak{b} \mathfrak{g} \mathfrak{b}$$

$$\supset : \mathfrak{b} = \mathfrak{b}_0 + \sum_{\mathfrak{t}} \mathfrak{b}_\mathfrak{t} \in \mathbb{C}\underline{\mathbb{H}}^\bullet \times \sum_{\mathfrak{t}} \mathbb{C}\underline{\mathbb{H}}_\mathfrak{t}^\bullet \Rightarrow \mathfrak{b} * \mathfrak{b} = \mathfrak{b}_0 * \mathfrak{b} + \sum_{\mathfrak{t}} \mathfrak{b}_\mathfrak{t} * \mathfrak{b} = \sum_{\mathfrak{t}} \mathfrak{b} \mathcal{G} \mathfrak{b}_\mathfrak{t} = \mathfrak{b} \mathfrak{g} \mathfrak{b} = \mathfrak{b} \mathfrak{g} \mathfrak{b}_0 + \sum_{\mathfrak{t}} \mathfrak{b} \mathfrak{g} \mathfrak{b}_\mathfrak{t} \Rightarrow \mathfrak{b}_0 = 0 =$$

$$\mathbb{R}\bar{\underline{\mathbb{H}}}_-^\bullet \times \mathbb{R}\bar{\underline{\mathbb{H}}}_+^\bullet = \mathbb{R}\bar{\underline{\mathbb{H}}}_1^\bullet \times \mathbb{R}\bar{\underline{\mathbb{H}}}_-^\bullet$$

$$\Theta^{\mathbb{R}\bar{\underline{\mathbb{H}}}_-^\bullet} = {}_{-\bar{\underline{\mathbb{H}}}_-^\bullet}$$