(1-1)-link

wall

Teichmüller dilation happens

$L \rightsquigarrow I$

$$\begin{array}{ccc}
{}^{\dagger}G_{\underline{v}} & \overset{\text{full}\quad\text{poly}}{\simeq} & {}^{\ddagger}G_{\underline{v}} \\
\circlearrowleft & & \circlearrowleft \\
{}^{\dagger}\mathfrak{q}^{\mathbb{N}}_{\underline{\underline{v}}} & \simeq & \{{}^{\ddagger}\mathfrak{q}^{j^2}_{\underline{\underline{v}}}\}^{\mathbb{N}}_{1\le j\le\frac{l-1}{2}} \\
 & & \\
{}^{\dagger}\mathcal{O}^{\times\mu} & \underset{\text{Isomet-orbit}}{\simeq} & {}^{\ddagger}\mathcal{O}^{\times\mu}
\end{array}$$

Q. Can we replace ${}^{\dagger}G_{\underline{v}} \overset{\text{full poly}}{\simeq} {}^{\ddagger}G_{\underline{v}}$ & ${}^{\dagger}\mathcal{O}^{\times\mu} \underset{\text{Isomet-orbit}}{\simeq} {}^{\ddagger}\mathcal{O}^{\times\mu}$ by

$G_{\underline{v}} \xrightarrow{\overset{id}{\sim}} G_{\underline{v}}$ & $\mathcal{O}^{\times\mu}_{\overline{K}_{\underline{v}}} \xrightarrow{\overset{id}{\sim}} \mathcal{O}^{\times\mu}_{\overline{K}_{\underline{v}}}$

respectively ?

A. No !

IUTch

$$\begin{array}{ccc} {}^{\dagger}G_{\underline{v}} & \overset{\text{full poly}}{\cong} & {}^{\ddagger}G_{\underline{v}} \\ \circlearrowright & & \circlearrowleft \\ {}^{\dagger}\underline{\underline{q}}_{\underline{v}}^{\mathbb{N}} & \cong & \{{}^{\ddagger}\underline{\underline{q}}_{\underline{v}}^{j^2}\}^{\mathbb{N}} \\ \wr & & \wr \\ {}^{\dagger}\mathcal{O}^{\times\mu} & \cong & {}^{\ddagger}\mathcal{O}^{\times\mu} \end{array}$$

Isomet-orbit

different ring str's

mono-analytically connected

cf. classical analogue

different hol. str's

same lattice

$${}^{\dagger}\mathbb{C}/\Lambda \qquad {}^{\ddagger}\mathbb{C}/\Lambda$$

($\Lambda \subset$ underlying $\mathbb{R}^2$)

$$\begin{array}{ccc} \Lambda & = & \Lambda \\ \cap & & \cap \\ {}^{\dagger}\mathbb{C} & \cong & {}^{\ddagger}\mathbb{C} \end{array}$$

different hol. str's

real analytically connected

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id-version

$$\begin{array}{ccc} G_{\underline{v}} & \overset{\text{id}}{=} & G_{\underline{v}} \\ \circlearrowright & & \circlearrowleft \\ {}^{\dagger}\underline{\underline{q}}_{\underline{v}}^{\mathbb{N}} & \cong & \{{}^{\ddagger}\underline{\underline{q}}_{\underline{v}}^{j^2}\}^{\mathbb{N}} \end{array}$$

cut

$$\mathcal{O}^{\times\mu}_{\overline{F}_{\underline{v}}} \overset{\text{id}}{=} \mathcal{O}^{\times\mu}_{\overline{F}_{\underline{v}}}$$

different lattices

$$\mathbb{C}/\Lambda \qquad \mathbb{C}/\Lambda'$$

same hol. str's

$$\Lambda \simeq \mathbb{Z}^{\oplus 2} \simeq \Lambda'$$

cut

$$\mathbb{C} = \mathbb{C}$$