$\Pi_{\underline{v}}$ (for $\underline{v} \in \underline{\mathbb{V}}^{\mathrm{non}}$) $\longleftrightarrow$ $\mathcal{D}_{\underline{v}}$ (for $\underline{v} \in \underline{\mathbb{V}}^{\mathrm{arc}}$)

abstract top. gp.
$\Downarrow$
coricity for lg-like

"Aut-holomorphic space"
$\wr\wr$
Riemann (orbi) surface up to complex conj.

defn. depends on comparison to some model $\mathbb{C}$

$\{$

one would like to eliminate this dependence on this model $\mathbb{C}$.

"top. space": does not depend on any model of $\mathbb{C}$

Aut-hol. sp.: $\mathbb{X} = (X, \mathbb{H})$ top. space X + for some basis $\mathcal{U}$ of top., $\forall U \in \mathcal{U}$, s/gp.? $\mathrm{Aut}_{\mathbb{H}}(U) \subseteq \mathrm{Homeo}(U)$

s.t. $\mathbb{X} \xrightarrow{\sim}$ similar data arising from some Riemann surface

(cf. [AbsTopIII], §2)

Key fact: Let $D \subseteq \mathbb{C}$ open unit disk

index 2 $\{$ $\mathrm{Aut}_{\mathrm{hol}}(D) \subseteq \mathrm{Aut}_{\mathrm{top}}(D)$
$\cap$
$N_{\mathrm{Aut}_{\mathrm{top}}(D)}(\mathrm{Aut}_{\mathrm{hol}}(D))$

$\xrightarrow{\sim} SL_2(\mathbb{R}) \supseteq S^1$ ← max compact

---

$\mathcal{O}^{\rhd}_{\mathbb{C}} \cong S^1 \times \mathbb{R}_{\geq 1}$ (in original IUT, arc: good)
split top. monoid $\qquad \mathbb{R}_{\geq 1} \subseteq \mathbb{R}_{\geq 0}$

Aut-hol. sp. for certain coverings of $(1,1)$-curve which is a core
$\wr$
$\}$ elliptic cuspidalization

Kummer str.

top. fld. "$\mathbb{C}$"
$\cup$
$\mathcal{O}^{\rhd}_{\mathbb{C}}$

---

ht $\leq (1+\varepsilon)(\log \mathrm{diff} + \log \mathrm{cond}) + \mathrm{const.}$

[IUTchIV], Cor 2.2 (ii)(iii)

$\Rightarrow$ const. $\lesssim_{\varepsilon} (\deg. \text{ of } NF)^{4+\varepsilon}$

for abc-triples in a compactly bdd set

at 2, arc

$\in (\mathbb{P}^1 \setminus \{0, 1, \infty\})(\overline{\mathbb{Q}})$

eliminated in [ExpEst] for monocomplex NF's
$\mathbb{Q}$ or imag. quadratic

[GenEll] $\Rightarrow$ stronger result:
- "compactly bdd" can be eliminated for arb. NF's
- but const

"uniform abc" X

Siegel zeroes: full CM-curves
$\Downarrow$ [GenEll]
"uniform abc"

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indeterminacies / inter-universality

$G_1 \curvearrowright K_1 \quad$ non-ring/sch.-th. link $\quad G_2 \curvearrowright K_2$
$=$ $\qquad\qquad =$

$G_1 \xrightarrow{\sim} G_2$
$\circlearrowleft$?
$\mathrm{Aut}(K_1) \dashrightarrow^{\sim ?} \mathrm{Aut}(K_2)$

only meaningful if it arises from some

$K_1 \xrightarrow{\sim} K_2$

not compatible with $\boxed{\text{Link}}$

$\wr$ Link $\wr$

$\rightsquigarrow K_1 \xrightarrow{\sim} K_2$

$\Downarrow$

$\wedge$ no longer holds!

"
(share information
conc.