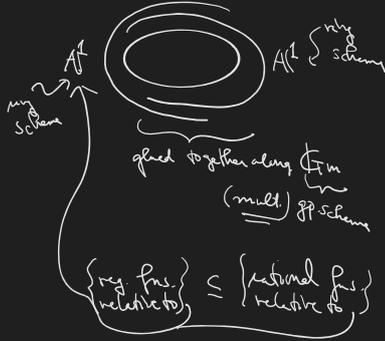


(ii) E : all curve/mo. fld F
 & large primes.
 another map \rightarrow \oplus -link \rightarrow one ring of \int
 $\{ \frac{1}{f_i} \}_{i=1}^{l-1} \xrightarrow{\sim} \frac{1}{f} = \frac{1}{f^2}$
 \downarrow
 gluing (mult. \int)

... cf. gluing for P^1



(iii) hyperbolic Riemann surface X

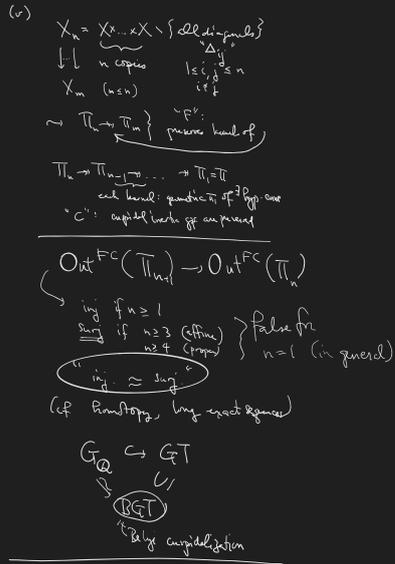
$$\pi_1^{\text{top}}(X) \rightarrow SL_2(\mathbb{R})$$

... in the case of Shimura curves
 such as M_{ell}

$$\pi_1^{\text{top}}(X) \rightarrow SL_2(\mathbb{Z})$$

\leadsto p-adic versions of \mathbb{F}

p-adic Teich theory yields
 similar rep. for much more
 general p-adic curves



(vi)

$$SL(2, \mathbb{Z})^{ab} \cong \mathbb{Z}/2\mathbb{Z}$$

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix}, \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$

