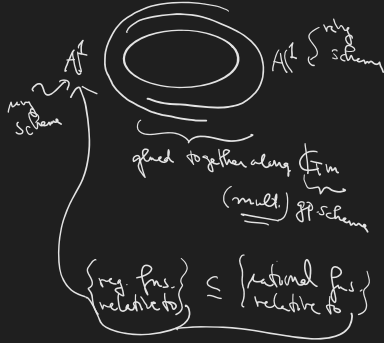


(ii)  $E$ : all curve/mo. fld  $F$   
 & large primes.  
 another map  $\rightarrow$   $\oplus$ -link  $\rightarrow$  one ring of  $\int$   
 $\{ \frac{1}{f_i} \}_{i=1}^{l-1} \xrightarrow{\sim} \frac{1}{f} = \frac{1}{f^2}$   
 $i=1 \dots l-1$   
 gluing (mult.  $\int$ )

... cf. gluing for  $P^1$



(iii) hyperbolic Riemann surface  $X$

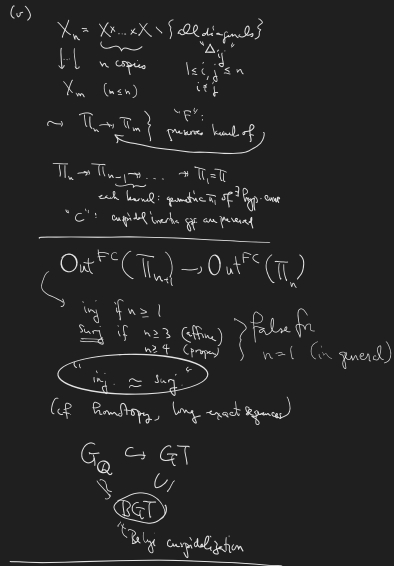
$$\pi_1^{\text{top}}(X) \rightarrow SL_2(\mathbb{R})$$

... 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  $\int$

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



(vi)  $SL(2, \mathbb{Z}) \cong \mathbb{Z} \ltimes \mathbb{Z}^2$

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

