

$$A \cong \frac{(H^{1,0}(A))^*}{H_1(A, \mathbb{Z})} \cong \frac{(H^{1,0}(B_L))^*}{H_1(B_L, \mathbb{Z})} = f(B_L) \quad \text{see p327}$$

$$(H^{1,0}(B_L))^* = (H^0(B_L, \Omega^1))^* = H^1(B_L, \mathcal{O}) = H^{0,1}(B_L)$$

□

Note that since the analytic representative  $B_L$  of the cohomology class  $[B_L] \in H^2(A, \mathbb{Z})$  is unique up to translations, all the curves  $B_L \subset A$  are translates of one another. Hence all the curves  $B_L$  are smooth, and  $A = f(B_L)$  for any  $L \in A$ .

□

see p957 note.  $\wedge \Rightarrow$

To relate the various curve  $B_L$  on  $A$ , let  $L_0$  be one of the 16 lines in  $j'^{-1}(R^*)$  and take  $L_0$  to be the origin in  $A$ . Since clearly

$$i'(L) \in B_L \quad \text{for } L \neq i'(L),$$

by continuity,

$$L_0 \in B_{L_0};$$

so we can also take  $L_0$  as base point on the curve  $B_{L_0}$ .

□ By the definition  $i'(L) \cup L = \sigma(h) \cap X$  for some