

Either

$\Rightarrow \sigma(p) \supset \sigma(q, h)$ or $h \cap h_1 = h \cap h_2$ must be true.
 $\Rightarrow \sigma(h)$ must pass through x . $\Rightarrow h_1 \cap h_2 \in \sigma(h)$
 $\Rightarrow h_1 \cap h_2 \in \sigma(q, h) \Rightarrow q \in h_1 \cap h_2 = x \in \sigma(h) \cap X$
 $\Rightarrow x \in X_h \Rightarrow \pi^{-1}(S \cap h) - \sum_{p \in R} X_p = X_h$.

Implicitly, the authors suggested that more on Chapter 2.

① $B_{L_0} = \{ (p - p_0) \}$

② $H = B_{L_0}$

I don't know yet.

I think we need understand

\Rightarrow For $h \in R^*$, $j^{-1}(h \cap S) = B_L$, where L is invariant under the involution $\mu \mapsto -\mu$, which implies that L is a half-lattice point of A . $\Rightarrow L$ is one of μ_i, μ_{ij} 's. (See p282 ~ p283). This proves that X_h is the image of the proper transform of one of H_i, H_{ij} 's.

By Riemann's theorem on p338, $B_{L_0} = H + \lambda$.

Let $H = (\theta = 0)$. $\Rightarrow B_{L_0} = \tau_\lambda^* \theta \Rightarrow$ Since B_{L_0} is invariant under $\mu \mapsto -\mu$, $\tau_\lambda^* \theta(z) = \tau_\lambda^* \theta(-z)$

$\Rightarrow \theta(z + \lambda) = \theta(-z + \lambda) \Rightarrow \theta(z) = \theta(2\lambda - z) \Rightarrow$

By $\theta(z) = \theta(-z)$, $\theta(z) = \theta(z - 2\lambda) \Rightarrow$ By the result on p317, $2\lambda = 0 \Rightarrow \lambda = 0$ ($\lambda \equiv 0 \pmod{\Lambda}$).

See p235. $\Rightarrow \tilde{\mu} : \text{Div}^0(B_L) \rightarrow J(B_L)$ is isomorphic by Jacobi Inversion Theorem.

\Rightarrow ① above is just the identification B_{L_0} with $\{ (p - p_0) \}$ under the map $p \mapsto (p - p_0)$.

'More on $\tau_\lambda^* \theta$ '

Suppose D is an irreducible divisor on $M = A$.