

$$\{(x, y) \in \mathbb{C}^2 \mid y^2 = \prod_{i=0}^5 (x - \lambda_i)\}$$

$f(x, y) = \frac{y}{(x - \lambda_0)^3}$  is defined on  $B - \{\text{two points}\}$  and since  $f$  is bounded around those two points, by Riemann's extension theorem,  $f$  is extended to  $B$ . Note that  $f \neq 0$  on  $\{\text{two points}\}$ .

$$\Rightarrow (f=0) = p_0 + p_1 + \dots + p_5 - 6p_0, \text{ since}$$

$$f(\lambda_i, 0) = 0 \text{ for } i = 0, \dots, 5.$$

$$\frac{y}{(x - \lambda_0)^3} = k \text{ and } y^2 = \prod_{i=0}^5 (x - \lambda_i)$$

$$(k(x - \lambda_0)^3)^2 = \prod_{i=0}^5 (x - \lambda_i)$$

$$\Rightarrow k^2 = \frac{\prod_{i=1}^5 (x - \lambda_i)}{(x - \lambda_0)^5} \Rightarrow \text{At } (\lambda_0, 0) = p_0, f \text{ has}$$

a pole of order 5.

$$\Rightarrow \mu_i + \mu_{j,k} \sim (p_i + p_j + p_k - 3p_0) - (f) = -p_e - p_m + 2p_0 \sim -\mu_{em}$$

By the note on P 962 back of note,  $2p_i - 2p_0 \sim 0$

$$\Rightarrow p_i - p_0 \sim -(p_i - p_0) \Leftrightarrow \mu_i \sim -\mu_i$$

$$\Rightarrow 2p_i - 2p_0 + 2p_j - 2p_0 \sim 0 \Leftrightarrow p_i + p_j - 2p_0 \sim -(p_i + p_j - 2p_0) \Leftrightarrow \mu_{ij} \sim -\mu_{ij}$$

□

Note that the standard theta-divisor

$$\Theta = \{(p - p_0) : p \in B\} \subset A$$

of course contains the six half-lattice points  $\{\mu_i\}$ ; likewise its translate

$$\Theta_i = \Theta + \mu_i = \{(p + p_i - 2p_0)\}$$