

P1902

See P712 for $| \mathcal{L}(\pi^* \mathcal{H}) - \sum E_i |$, and refer to P138.Note that $P(\mu) = P(-\mu)$, for

$$\begin{array}{ccc} \text{rational} & & \\ \text{map} & \xrightarrow{P} & \Sigma \\ A & \xrightarrow{j} & S \end{array}$$

$$\pi \circ P(-\mu) = \tilde{j}(-\mu) = \tilde{j}(\mu) = \pi \circ P(\mu) \quad \text{Nonsense}$$

 \Rightarrow If $P(\mu) \in S - R$, since π is one to one, \uparrow
 $P(-\mu) = P(\mu)$. If $P(\mu) \in R$, for example, $\mu = \mu_i$.

 $\text{then } \mu_i = -\mu_i \Rightarrow P(-\mu_i) = P(\mu_i)$.

 \Rightarrow Just as in the case of \tilde{j} , since P is given by some translate $| \mathcal{L}(\mathcal{H}) + \lambda |$ of $| \mathcal{L}(\mathcal{H}) |$, we can show that $| \mathcal{L}(\mathcal{H}) + \lambda | = | \mathcal{L}(\mathcal{H}) |$.

To show that for each $\sigma \in H^0(A, \mathcal{O}(P^* \mathcal{H}))$, σ passes all half-lattice points, choose any hyperplane H in \mathbb{P}^5 . $\Rightarrow H$ intersects every line of 3α lines in Σ , since H & each line lie in \mathbb{P}^5 . $\Rightarrow H \cap X_{p_i} \neq \emptyset \Rightarrow$ This implies that H contains $P(\tilde{j}^{-1}(p_i))$, and $\checkmark^{P^* \mathcal{H}}$ contain the lattice point $\tilde{j}^{-1}(p_i)$.

 \Downarrow

The map is 2-sheeted, branched exactly at the 16 exceptional divisors E_i of the blow-up.

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$A - \{ \text{half-lattice points} \} \xrightarrow{P} \Sigma$ is given by