

on P 766. \Rightarrow By Bertini's theorem, generic elements of the linear system are smooth, since X_p 's are disjoint. But, by the definition of S , all elements of the system are singular. \Rightarrow γ is a 2-sheeted cover and \exists no three of p_i 's which are collinear.

\Rightarrow Since $\overline{p_{ij}}, \overline{p_{ik}}, \dots$, lie on a conic, $\overline{q_1}, \overline{q_2}$ and $\overline{q_3}$ can not lie on L_i, L_j and L_k .

Relate this ^{result} to P773 and P929 note. \square

These three lines, however, account for 12 of the 15 points $\{p_{ij}\}$; consequently the points q_1, q_2 , and q_3 can only be the points p_{em}, p_{mn} and p_{en} .

\square Each of L_i, L_j and L_k contains 5 $\overline{p_{ij}}$'s

$\Rightarrow 5 \times 3 - \#\{\overline{p_{ij}}, \overline{p_{ik}}, \overline{p_{jk}}\} = 12$.

\Rightarrow Since $\overline{q_1}, \overline{q_2}, \overline{q_3}$ can not lie on L_i, L_j, L_k , $\overline{q_1}, \overline{q_2}, \overline{q_3}$ must be on L_m, L_n, L_e .

$\Rightarrow \{q_1, q_2, q_3\} = \{p_{mn}, p_{me}, p_{ne}\}$. \square

Thus, if we label the 16 double points of S by $\{p_o, p_{ij}\}$ and the 16 double points of S^* as $\{h_i, h_{ijk} = h_{emn}\}$, the incidence relations are

$$h_i \supset \{p_o, p_{ij}\}, \quad j \neq i,$$

$$h_{ijk} \supset \{p_{ij}, p_{ik}, p_{jk}, p_{em}, p_{mn}, p_{ne}\},$$