

\Rightarrow Contradiction.

(ii) Case 1.

\Rightarrow Again $\dim |f_{n_0}(1)| \geq 3 \Rightarrow$ It is a contradiction
 since $\dim H^0(\mathbb{P}^2, \mathcal{O}(H)) = \binom{2+1}{2} = 3$.

Thus $\#(L_1 \cap \Lambda_0) \geq 6$, from the cases. since we assumed $\#(L_1 \cap \Lambda_0) \leq 5$. and got contradictions \Rightarrow

But then this conic must be a fixed component of the ∞^{3+p} cubics $C - C_0$, which is a contradiction.

Q. E. D.

Υ Actually, we proved above that if there is no fixed line containing ≥ 6 points from P_0 , and there is no fixed conic containing ≥ 8 points from P_0 , we get contradictions.

So the possible ways to avoid contradictions are

① \exists a fixed line containing ≥ 6 points \Rightarrow done.

② \exists a fixed conic Υ containing ≥ 8 points.

$\Rightarrow \dim |f_{P_0}(4)| = \dim |f_{P'_0}(2)| \geq 3$, $P'_0 = P_0 - P_0 \cap \Upsilon$.

$\Rightarrow \#P'_0 \leq 4$

(i) Case 2.

$\Rightarrow \dim |f_{P'_0}(2)| = 5 - \#P'_0$

\Rightarrow For $3 \leq \#P'_0 \leq 4$, we have a contradiction

For $\#P'_0 \leq 2$, then $\#(P_0 \cap \Upsilon) \geq 10$, done.

(ii) Case 1.