

of \mathbb{P}^2 at P_2 . In this case, we say that a curve C in the plane contains P_1 and P_2 if C passes through P_2 and the curve $\pi^{-1}(C) - E$ contains P_1 , i.e., if either C is smooth at P_2 with tangent line corresponding to P_1 , or C is singular at P_2 . Thus, for example, we say that the points P_1, P_2 and P_3 are collinear if the proper transform in $\tilde{\mathbb{P}}^2$ of the line $\overline{P_2 P_3}$ contains P_1 . Of course, the linear condition imposed by P_1 on the system of cubics is defined only on the subsystem of cubics passing through P_2 , but the independence of the conditions imposed by P_1, \dots, P_8 is still well-defined.

corrected to

"I think: $\pi^{-1}(C) - E$ should be $\sqrt{\pi^*C} - E$."

⌈ Fixing P_1 is determining the slope of a curve at P_2 . ⌋

"At P_2 , C has an ordinary double point or a cusp."

The argument for the lemma in case P_1 is infinitely near P_2 runs as follows: as before, we first want to show that any seven points P_1, \dots, P_7 , with P_1 infinitely near P_2 , impose independent conditions on cubics unless five are collinear.

⌈ It means "If five are not collinear, P_1, \dots, P_7 impose independent conditions on cubics." $\Leftrightarrow P_1, \dots, P_7$ fail to impose independent conditions on cubics only if five are collinear. ⌋

Assuming that no five are collinear, we know from