

two lines from the same  $\sigma(h)$ : in other words,

A line  $l_x$  of our complex is singular — i.e., lies on two confocal pencils — if and only if it lies on two coplanar pencils.

First of all, note that, in case  $T_x(F)$  is nowhere tangent to  $G$ , no two of the lines of  $T_x(X) \cap X$  will lie on the same  $\sigma(h)$  unless  $T_x(X) \cap X$  contains a multiple line. (See above) The lemma and the argument above proves that, for a generic  $x$ ,  $T_x(X) \cap X$  is the union of four distinct lines.

$l_x$  is singular  $\Rightarrow x \in \Sigma \Rightarrow T_x(F)$  is tangent to  $G \Rightarrow$  When  $T_x(X) \cap X = L_1 \cup L_2 \cup L_3 \cup L_4$ ,

$\sigma(p) \supset L_1, L_2$  &  $\sigma(h) \supset L_3, L_4$ ,  $x \in L_3 \cap L_4$ .

$L_4$  &  $L_3$  are pencils in  $\sigma(h)$  which is a  $\sigma$ -plane. //

$x \in L \cap L'$ , where  $L, L'$  lie in  $\sigma(h) \Rightarrow T_x(F)$  is tangent to  $G \Rightarrow x \in \Sigma$  by the lemma  $\Rightarrow l_x$  is singular. ( $L_3, L_4$  lies on two coplanar 'h' pencils)

Here, I guessed. two implies distinct two.  $\Rightarrow$

$\hookrightarrow$  It does not matter.  $\sigma(p, h)$  is a multiple  $\Leftrightarrow \sigma(p) \cap X = \sigma(p, h)$

We can now give an explicit description of  $\Sigma \subset X$ .

Let  $x = [x_0, \dots, x_5]$  be homogeneous coordinates on  $\mathbb{P}^5$ , and suppose that  $G$  and  $F$  are given as the loci

$$(Qx, x) = 0 \quad \text{and} \quad (Q'x, x) = 0,$$

$$\text{or } \sigma(h) \cap X = \sigma(p, h).$$