

$V' \subset \mathbb{P}^5$  that will intersect  $X$  in  $L_2, M_1', M_2'$ , and a four-th line  $L_3$ .

$\mathbb{P}^3 \langle L_2, M_1', M_2' \rangle = \mathbb{P}^3 = V' \Rightarrow$  Since  $V' \cap X$  is a curve of degree 4,  $V' \cdot X = L_2 + M_1' + M_2' + L_3$ .  
 $\Downarrow$

We have then

$$\begin{aligned} L_3 &= -M_1' - M_2' - L_2 \\ &= -M_1 - M_2 + L_2 \quad (M_i' = M_i - L_2) \\ &= L_1 + L_2 \end{aligned}$$

in  $A$ : this is the group law.

#### 4. The Quadric Line Complex: Reprise

##### The Quadric Line Complex and the Associated Kummer Surface II

We return now to the geometry of the complex  $X$  of lines in  $\mathbb{P}^3$ . Our starting point this time around is the question: which lines  $l_x$  of our complex are tangent lines to the Kummer surface  $S$ ? To answer this, we go back to our initial computation of the degree of the Kummer surface: