NO.

DATE

and contained in V_4 ($\supset L$). Clearly $\sigma_{1,1}(V_4) \cap A \ni a$. ⌟

Since $^{\#}(A \cdot \sigma_{1,1}) = 16$, it follows that A has intersection multiplicity 1 with $\sigma_{1,1}(V_4)$ at every point of $\sigma_{1,1}(V_4) \cap A$, and hence that a is a smooth point of A.

⌜ If a is singular, then $\mathrm{mult}_a(A \cdot \sigma_{1,1}(V_4))$ can not be 1 (See p22). $A \cdot \sigma_{1,1}(V_4)$ is smooth. ($\because$ It is a set of distinct points.) ⌟

For every pencil $L \subset X$ in the complex X, the focus p_L of L is by definition a point of the Kummer surface S and the plane h_L of L likewise a point of the dual Kummer surface S^*; thus we have natural maps

$$j : A \longrightarrow S \quad \text{and} \quad j' : A \longrightarrow S^*$$

defined by

$$j : L \longmapsto p_L \quad \text{and} \quad j' : L \longmapsto h_L.$$

For $p \in S - R$, X contains two pencils with focus p, while for $p \in R$, X contains a single such pencil p; thus j expresses A as a double cover of S branched in the 16 points of R. Similarly, a hyperplane $h \in S^* - R^*$ contains two pencils of X while a hyperplane $h \in R^*$ contains only one; thus