Proposition 6.4. *The geometric cobordism in* $\mathbb{C}P^i \times \mathbb{C}P^j$ *corresponding to the element* $x+y \in H^2(\mathbb{C}P^i \times \mathbb{C}P^j)$ *is represented by the submanifold* H_{ij}. *In particular, the image of the fundamental class* $\langle H_{ij} \rangle$ *in* $H_{2(i+j-1)}(\mathbb{C}P^i \times \mathbb{C}P^j)$ *is Poincaré dual to* $x+y$.

Proof. We have $x+y = c_1(p_1^*(\bar{\eta}) \otimes p_2^*(\bar{\eta}))$. The classifying map $f_{x+y} \colon \mathbb{C}P^i \times \mathbb{C}P^j \to \mathbb{C}P^\infty$ is the composition of the *Segre embedding*

$$\sigma \colon \mathbb{C}P^i \times \mathbb{C}P^j \to \mathbb{C}P^{ij+i+j},$$
$$(z_0 : \ldots : z_i) \times (w_0 : \ldots : w_j) \mapsto (z_0 w_0 : z_0 w_1 : \ldots : z_k w_l : \ldots : z_i w_j),$$

and the embedding $\mathbb{C}P^{ij+i+j} \to \mathbb{C}P^\infty$. The codimension 2 submanifold in $\mathbb{C}P^i \times \mathbb{C}P^j$ corresponding to the cohomology class $x+y$ is obtained as the inverse image $\sigma^{-1}(H)$ of a generally positioned hyperplane in $\mathbb{C}P^{ij+i+j}$ (i.e. a hyperplane H transversal to the image of the Segre embedding). By its definition, the Milnor hypersurface is exactly $\sigma^{-1}(H)$ for one of such hyperplanes H. □