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$= \{ p \in M - B \mid \lambda_2 S_1(p) - \lambda_1 S_2(p) = 0 \}$.

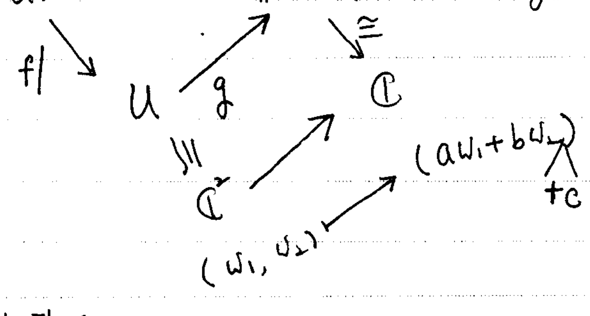
Since $f(V)$ has measure zero, for a generic regular elmt $\lambda \in \mathbb{P}^1$, $f^{-1}(\lambda)$ is submanifold of $M - B$.

In general, we can easily prove the above.
For example,

$$\begin{array}{ccc} M - B & \xrightarrow{f} & \mathbb{P}^2 \\ \rotatebox{90}{$\in$} & & \\ p & \longmapsto & [(S_{\alpha 1}(p), S_{\alpha 2}(p), S_{\alpha 3}(p))] \end{array}$$

$B = \{ S_1 = S_2 = S_3 = 0 \}$.

$\Rightarrow$ By the same argument, we can show that the set of regular values forms an open dense subset in $\mathbb{P}^2$.
Let $\lambda \in \mathbb{P}^2$ be a regular value.
$\Rightarrow \exists$ $\mathbb{P}^1$ s.t $\mathbb{P}^1 \subset \mathbb{P}^2$, and $\lambda \in \mathbb{P}^1$.
$\Rightarrow \exists$ open set $U \ni \lambda$ s.t $U \subset \mathbb{P}^2$, all points in U are regular values.
$\Rightarrow$ $f^{-1}(U)$ is submanifold in $M - B$.
$\Rightarrow$ $f^{-1}(U) \xrightarrow{g \circ f|} \mathbb{P}^1 \cap U$ is regular, since
$\Rightarrow$



g is regular.

$\Rightarrow$ $(g \circ f|)^{-1}(g(\lambda))$ is smooth divisor away from B.

$*$ $\mathbb{C}^n \xrightarrow{\phi} \mathbb{C}$ $\quad (w_1 \cdots w_n) \longmapsto a_1 w_1 + \cdots + a_n w_n + a_0$ regular for $(a_1 \cdots a_n) \neq 0$.

This represents a hyperplane in $\mathbb{P}^2$ or $\mathbb{P}^n$ (considering $a_0 S_0 + \cdots + a_n S_n = 0$)

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