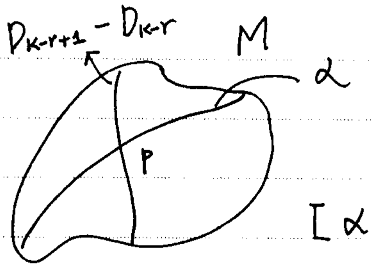

Let $T_p\alpha = [v_1, \cdots v_{2r}]$

$[\alpha, D_{k-r+1}] = [T_p\alpha, T_p D_{k-r+1}]$

$$\left[\frac{\partial}{\partial x_1}, \cdots \frac{\partial}{\partial x_{n-2r}}, \frac{\partial}{\partial g_{k-r+1}}, \frac{\partial}{\partial h_{k-r+1}}, \cdots \frac{\partial}{\partial g_k}, \frac{\partial}{\partial h_k}\right] \quad (\text{given orientation on } M)$$

$$= \underset{\epsilon}{\pm}\left[\frac{\partial}{\partial x_1}, \cdots \frac{\partial}{\partial x_{n-2r}}, v_1, \cdots v_{2r}\right] = \underset{\epsilon}{\pm}[T_p\alpha, T_p D_{k-r+1}]$$

$$= \underset{\epsilon}{\pm}[T_p D_{k-r+1}, T_p\alpha]$$

$$[\iota_* T_p\alpha, T_{\iota(p)}\sigma_{1,\cdots 1}(V)]$$
$$= \left[\iota_* v_1, \cdots \iota_* v_{2r}, \frac{\partial}{\partial k_1^1}, \frac{\partial}{\partial k_1^2}, \cdots \frac{\partial}{\partial k_r^1}, \frac{\partial}{\partial k_r^2}\right]$$

where $\sigma_{1,1,\cdots 1}(V) = (k_1 = \cdots = k_r = 0)$ near $\iota(p)$

and $k_j^1 + i k_j^2 = k_j$.

Point: $D = (y=0) \Rightarrow dy, \frac{\partial}{\partial y} \neq 0$ on D

$$\Rightarrow \left[\iota_* v_1, \cdots \iota_* v_{2r}, \frac{\partial}{\partial k_1^1} \cdots\right] \Leftrightarrow \left(\iota_* v_1 \wedge \cdots \wedge \iota_* v_{2r} \wedge \frac{\partial}{\partial k_1^1}\right)$$

$$= \underset{\epsilon}{\pm}\left[\frac{\partial}{\partial g_{k-r+1}}, \cdots \frac{\partial}{\partial g_k}, \frac{\partial}{\partial h_k}, \frac{\partial}{\partial k_1^1}, \cdots\right] \Leftrightarrow \left(\frac{\partial}{\partial g_{k-r+1}} \wedge \frac{\partial}{\partial h_{k-r+1}} \wedge \cdots \wedge \frac{\partial}{\partial g_k} \wedge \frac{\partial}{\partial h_k} \wedge\right.$$

$\left.\cdots \frac{\partial}{\partial k_r^1} \wedge \frac{\partial}{\partial k_r^2}\right)$ which is the standard orientation of $G(k,n)$.

$\Rightarrow$ This implies that

$$\iota_{\iota(p)}(\iota_*\alpha \cdot \sigma_{1,1\cdots 1}(V)) = \iota_p(\alpha \cdot D_{k-r+1}).$$

Dually, $dx_1 \wedge \cdots \wedge dx_{n-2r} \wedge v_1^* \wedge \cdots \wedge v_{2r}^*$

$$= \epsilon\, dx_1 \wedge \cdots \wedge dx_{n-2r} \wedge dh_{k-r+1} \wedge dg_{k-r+1} \wedge \cdots \wedge dh_k \wedge dg_k$$

$\Rightarrow v_1^* \wedge \cdots \wedge v_{2r}^* = \epsilon\, dh_{k-r+1} \wedge \cdots \wedge dh_k \wedge dg_k$ + negligible term

Actually, we can consider $\epsilon\, dh_{k-r+1} \wedge \cdots \wedge dg_k$ as an orientation of k,