

since negligible term become zero on  $G(K, n)$ .  
 $\in dh_{k-1} \wedge \dots \wedge dg_k \wedge dk'_1 \wedge dk'_2 \wedge \dots \wedge dk'_r \wedge dk'_r = [\text{orientation of } \omega_d, \text{ orientation of } \sigma_{r-1}(V)]$ .

"Comment on the orientation on  $D_i$ ."

For example  $\bar{u} = 2, K = 3$ .

$$\sigma_2 = \underset{\sigma_1}{f_1 e_1 + f_2 e_2 + f_3 e_3} = g_1 e_1 + g_2 e'_2 + g_3 e'_3$$

$$e'_2 = h_{12} e_1 + h_{22} e_2 + h_{32} e_3 \Rightarrow D_i = (f_2 = f_3 = 0)$$

$$e'_3 = h_{13} e_1 + h_{23} e_2 + h_{33} e_3 = (g_2 = g_3 = 0)$$

$$\Rightarrow f_2 = g_2 h_{22} + g_3 h_{23}$$

$$f_3 = g_2 h_{32} + g_3 h_{33}$$

$$df_2 = h_{22} dg_2 + h_{23} dg_3, \quad d\bar{f}_2 = \bar{h}_{22} d\bar{g}_2 + \bar{h}_{23} d\bar{g}_3 \quad \text{on } D_i$$

$$df_3 = h_{32} dg_2 + h_{33} dg_3, \quad d\bar{f}_3 = \bar{h}_{32} d\bar{g}_2 + \bar{h}_{33} d\bar{g}_3 \quad (g'_2 = g'_3 = 0)$$

$$\Rightarrow df_2 \wedge d\bar{f}_2 = |h_{22}|^2 dg_2 \wedge d\bar{g}_2 + |h_{23}|^2 dg_3 \wedge d\bar{g}_3$$

$$+ h_{22} \bar{h}_{23} dg_2 \wedge d\bar{g}_3 + h_{23} \bar{h}_{22} dg_3 \wedge d\bar{g}_2$$

$$df_3 \wedge d\bar{f}_3 = |h_{32}|^2 dg_2 \wedge d\bar{g}_2 + |h_{33}|^2 dg_3 \wedge d\bar{g}_3$$

$$+ h_{32} \bar{h}_{33} dg_2 \wedge d\bar{g}_3 + h_{33} \bar{h}_{32} dg_3 \wedge d\bar{g}_2$$

$$\Rightarrow df_2 \wedge d\bar{f}_2 \wedge df_3 \wedge d\bar{f}_3$$

$$= |h_{22} h_{33} - h_{23} h_{32}|^2 dg_2 \wedge d\bar{g}_2 \wedge dg_3 \wedge d\bar{g}_3$$

$$\bar{u} = 2, \quad K = 4$$

$$\sigma_2 = \underset{\sigma_1}{f_1 e_1 + f_2 e_2 + f_3 e_3 + f_4 e_4} = g_1 e_1 + g_2 e'_2 + g_3 e'_3 + g_4 e'_4$$

$$e'_2 = h_{12} e_1 + h_{22} e_2 + h_{32} e_3 + h_{42} e_4$$

$$e'_3 = h_{13} e_1 + h_{23} e_2 + h_{33} e_3 + h_{43} e_4$$

$$e'_4 = h_{14} e_1 + h_{24} e_2 + h_{34} e_3 + h_{44} e_4$$

$$f_2 = g_2 h_{22} + g_3 h_{23} + g_4 h_{24}$$