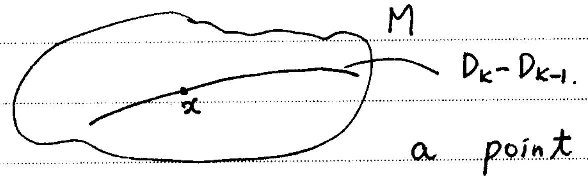
$$
\begin{array}{l}
\sigma_1 = \sigma_1 + 0 + 0 \cdots \overset{k-1}{0} \; \overset{k}{0} \cdots + 0 \\
\sigma_2 = 0 + \sigma_2 + 0 + 0 \cdots 0 \cdot 0 \cdots + 0 \\
\sigma_3 = 0 + 0 + \sigma_3 + 0 \cdots 0 \; 0 \quad + 0 \\
\vdots \\
\sigma_{k-1} = 0 + \cdots + \sigma_{k-1} + 0 \quad 0 \\
\sigma_k = *\sigma_1 + *\sigma_2 + *\sigma_3 + \cdots + *\sigma_{k-1} + \underset{*\omega_k}{0} + \cdots 0 \\
\sigma_{k+1} = *\sigma_1 + \cdots + *\sigma_{k-1} + \quad + 0 + \cdots + 0 \\
\vdots \\
\sigma_n = *\sigma_1 + \cdots + *\sigma_{k-1} + *\omega_k + 0 + \cdots + 0
\end{array}
$$

$$
\Rightarrow \iota(x) = \begin{array}{c} \\ \\ \\ k-1 \\ k \\ k+1 \\ \vdots \\ n \end{array}
\begin{pmatrix}
(1, 0, 0 \cdots & \overset{k-1}{0}, & \overset{k}{*}, & * \cdots & *) \\
(0, 1, 0 \cdots & 0, & *, & * \cdots & *) \\
\vdots & & & & \\
(0, 0, 0, \cdots & 1, & *, & *, \cdots & *) \\
(0, 0, 0, \cdots & 0, & 0, & *, \cdots & *) \\
(0, 0, 0 \cdots & 0, & 0, & 0 \cdots & 0) \\
(0, 0, 0, \cdots & 0, & 0, & 0, \cdots & 0)
\end{pmatrix}
$$

Since $\operatorname{codim}_{\mathbb{R}}(D_k - D_{k-1}) = 2$, and σ_k intersects the subspace $\langle \sigma_1, \cdots \sigma_{k-1} \rangle$, we can choose



a point x' near x s.t $x' \in M - (D_k - D_{k-1})$ and $\sigma_1, \cdots \sigma_{k-1}, \sigma_k$ are linearly independent at x'.

$$
\begin{array}{l}
\sigma_1 = \sigma_1 + 0 + \cdots + \overset{k-1}{0} + \overset{k}{0} + \cdots + 0 \\
\sigma_2 = 0 + \sigma_2 + 0 + \cdots \cdots + 0 \\
\vdots \\
\sigma_{k-1} = 0 + 0 + 0 + \cdots + \sigma_{k-1} + 0 + \cdots + 0 \\
\sigma_k = 0 + 0 + 0 + \cdots + 0 + \sigma_k + 0 + \cdots + 0 \\
\sigma_{k+1} = *\sigma_1 + *\sigma_2 + *\sigma_3 + \cdots + *\sigma_{k-1} + *\sigma_k + 0 + \cdots + 0 \\
\vdots \\
\sigma_n = *\sigma_1 + *\sigma_2 + *\sigma_3 + \cdots + *\sigma_{k-1} + *\sigma_k + 0 + \cdots + 0
\end{array}
$$