

$$\sum_{i \neq k} a_{i\bar{j}k} dz_k \wedge dz_i \wedge d\bar{z}_j = 0$$

$$\text{if } i \neq k, a_{i\bar{j}k} = a_{k\bar{j}i}$$

$$a_{i\bar{j}k} \quad \parallel \quad \overline{a_{j\bar{i}k}}$$

$$\text{if } i = k, a_{i\bar{j}k} = a_{k\bar{j}i} \\ a_{k\bar{j}i} = a_{k\bar{j}k} \quad \parallel$$

$$\Rightarrow a_{i\bar{j}k} = a_{k\bar{j}i}$$

equivalent

$$a_{i\bar{j}k} = a_{i\bar{k}j} \\ \parallel \\ \overline{a_{j\bar{i}k}} = \overline{a_{k\bar{i}j}}$$

$$\Rightarrow a_{j\bar{i}k} = a_{k\bar{i}j} \quad \text{if } k \neq j$$

We want to find a change of coordinates

$$z_k = w_k + \frac{1}{2} \sum b_{klm} w_l w_m \Rightarrow \text{diffeomorphic, even holomorphic} \\ \left(\frac{\partial z_k}{\partial w_n} \right) = \delta_{kn} \text{ at the origin} \\ w(0) = 0 \text{ i.e. } w_l(0) = 0$$

such that

$$\omega = \frac{i}{2} \sum (\delta_{i\bar{j}} + [\varphi]) d\bar{w}_i \wedge d\bar{w}_j \quad (*);$$

we normalize by requiring $b_{klm} = b_{kml}$.

$$\text{Then } dz_k = dw_k + \sum b_{klm} w_l dw_m$$

$$\text{so that } \frac{\partial}{\partial i} \omega = \sum (dw_i + \sum b_{i\bar{l}m} w_l dw_m) \wedge \sum (d\bar{w}_i + \sum \overline{b_{i\bar{l}m}} \overline{w_l} d\bar{w}_m) \\ + \sum (a_{i\bar{j}k} w_k + a_{i\bar{j}\bar{k}} \bar{w}_k) d\bar{w}_i \wedge d\bar{w}_j + [\varphi]$$

$$= \sum (\delta_{i\bar{j}} + \sum_k (a_{i\bar{j}k} w_k + a_{i\bar{j}\bar{k}} \bar{w}_k + b_{j\bar{k}i} w_k + \overline{b_{j\bar{k}i}} \bar{w}_k)) d\bar{w}_i \wedge d\bar{w}_j \\ + [1].$$