So, suppose again that M is a compact Kähler manifold of dimension n and let v be a holomorphic vector field on M having isolated nondegenerate zeros. Let

$$f_t = \exp(tv) : M \longrightarrow M$$

be the map obtained by integrating the corresponding real vector field to time t; f_t is readily seen to be holomorphic.

"Comment on $\iota_v(p) = 1$ for v holomorphic"

"According to P17. $\quad T_{\mathbb{R},p}(M) \xrightarrow{\cong} T'_p(M)$ is isomorph.

$$\frac{\partial}{\partial x_i} \longmapsto \frac{\partial}{\partial z_i}$$

$$\frac{\partial}{\partial y_i} \longmapsto \sqrt{-1}\,\frac{\partial}{\partial z_i}.$$

$$\Rightarrow \quad v = \sum a_{ij}\, z_i \frac{\partial}{\partial z_j} + [\partial]$$

$$= \sum a_{ij}\,(x_i + \sqrt{-1}\,y_i)\frac{\partial}{\partial z_j} + [\partial] \quad \text{corresponds to}$$

$$\sum a_{ij}\, x_i \frac{\partial}{\partial x_j} + a_{ij}\, y_i \frac{\partial}{\partial y_j}$$

Put $y_i = x_{i+n}$. $\Rightarrow$ We get $\sum a_{ij}\, x_i \frac{\partial}{\partial x_j} + a_{ij}\, x_{i+n} \frac{\partial}{\partial x_{i+n}}$

$$\Rightarrow \quad \Delta = \left(\begin{array}{c|c} a_{ij} & 0 \\ \hline 0 & a_{ij} \end{array}\right) \Rightarrow \det \Delta = (\det A)^2."$$