this end, for each p and q let

$$\{\psi_{p,q,\mu}\}$$

be a collection of $\bar\partial$-closed (p,q) forms representing a basis for $H_{\bar\partial}^{p,q}(M)$, and let

$$\{\psi^*_{n-p,n-q,\mu}\}$$

be $\bar\partial$-closed forms representing the dual basis for $H_{\bar\partial}^{n-p,n-q}(M)$ under the pairing

$$H_{\bar\partial}^{p,q}(M) \otimes H_{\bar\partial}^{n-p,n-q}(M) \longrightarrow \mathbb{C}$$

given by

$$\psi \otimes \varphi \longmapsto \int_M \psi \wedge \varphi .$$

「 See p102 ~ p103 」.

By the Künneth formula from Section 6 of Chapter 0 a basis for $H_{\bar\partial}^{n,n}(M \times M)$ is represented by the forms

$$\{\varphi_{p,q,\mu,\nu} = \pi_1^* \psi_{p,q,\mu} \wedge \pi_2^* \psi^*_{n-p,n-q,\nu}\},$$

and the dual basis for $H_{\bar\partial}^{n,n}(M \times M)$ is represented, as in the real case above, by

$$\{\varphi^*_{n-p,n-q,\mu,\nu} = \pi_1^* \psi^*_{n-p,n-q,\mu} \wedge \pi_2^* \psi_{p,q,\nu}\}.$$

「 See p103 ~ p105, & p419. 」

The Dolbeault class η_Δ of the diagonal is

$$\varphi_\Delta = \sum_{p,q,\mu} (-1)^{p+q} \varphi_{p,q,\mu,\mu} .$$

Now let $f : M \longrightarrow M$ be a holomorphic map with isolated nondegenerate zeros; let $\Gamma_f = \{(p, f(p))\} \subset M \times M$ be its graph. If we compute the intersection number of Δ and