

has the support in a nbd of W . \square

The formula

$$Z \cdot W = \lim_{\epsilon \rightarrow 0} \int_{\partial Z_\epsilon} S$$

reduces us to a purely local question.

We take for S the current T_β defined by the Bochner - Martinelli form

$$\beta(z) = C_n (\partial \log \|z\|^2 \wedge (\partial \bar{\partial} \log \|z\|^2)^{n-1})$$

discussed in Section 1 of this chapter. The equation

$$\bar{\partial} T_\beta = T_{\{z=0\}}$$

is just the Bochner - Martinelli formula with trivial dependence on the parameters w .

$$\square \quad \bar{\partial} T_\beta(\varphi) = T_\beta(\bar{\partial} \varphi) = \int \beta \wedge \bar{\partial} \varphi = \int \bar{\partial} \beta \wedge \varphi$$

$$= \int_{\{z=0\}} \int_{\substack{\mathbb{C}^{n-p} \\ \downarrow \omega \\ \mathbb{C}^p \\ \downarrow z}} \bar{\partial} \beta \wedge \varphi(z, w) = \int_{\{z=0\}} \varphi(0, w)$$

$$= T_{\{z=0\}}(\varphi) = \int_{\{z=0\}} \varphi(0, w) = \int_{\{z=0\}} \varphi(z, w) \quad \square$$

Let $B_\epsilon \subset \mathbb{C}^p$ be the ball $\{ \|z\| < \epsilon \}$. The projection

$$Z_\epsilon \xrightarrow{\pi} B_\epsilon$$