differential forms, since the Bochner-Martinelli kernel is nonlinear. What the commutativity of the diagram proves is that $\eta = \eta' + \eta'' + \bar\partial\xi$.)

By P654, $\eta' = \eta_{\omega'} = g(z)\left[\dfrac{C_n \sum (-1)^{i-1} \bar f_i \, d\bar f_1 \wedge \cdots \wedge \widehat{d\bar f_i} \wedge \cdots \wedge d\bar f_n \wedge dz_1 \wedge \cdots \wedge dz_n}{\|(f_1', \cdots f_n)\|^2}\right]$, $\eta'' = \eta_{\omega''} = g(z)\left[\dfrac{C_n \sum (-1)^{i-1} \bar f_i \, d\bar f_1 \wedge \cdots \wedge \widehat{d\bar f_i} \wedge dz_1 \wedge \cdots \wedge dz_n}{\|(f_1'', \cdots f_n)\|^2}\right]$.

$$C_n\, g(z) \left\{ \frac{(\bar f_1' + \bar f_1'')\, d\bar f_2 \wedge \cdots}{|f_1' + f_1''|^2 + |f_2|^2} + \frac{(-1) \quad \bar f_2 \, d(\bar f_1' + \bar f_1'')}{\bigcirc} \right\} = \eta$$

$$\neq C_n\, g(z) \left\{ \frac{\bar f_1' d\bar f_2 - \bar f_2 d\bar f_1'}{|f_1'|^2 + |f_2|^2} + \frac{\bar f_1'' d\bar f_2 - \bar f_2 d\bar f_1''}{|f_1''|^2 + |f_2|^2} \right\}$$

By the lemma on P. 651 above,

$$(D_1, \cdots D_n)_{\{0\}} = \int_{\|z\| = \varepsilon} \eta(f_1, f_2, \cdots f_n),$$

from which the linearity of the intersection number follows.

By the lemma on P651,

$$(D_1 \cdots D_n)_{\{0\}} = \operatorname{Res}_{\{0\}} \omega(f_1, \cdots f_n) = \int_{\|z\| = \varepsilon} \eta_\omega$$

$$= \int_{\|z\| = \varepsilon} \eta_\omega' + \eta_\omega'' = \int_{\|z\| = \epsilon} \eta_\omega' + \int_{\|z\| = \epsilon} \eta_\omega''$$

$$= \operatorname{Res}_{\{0\}} \omega(f_1', \cdots f_n) + \operatorname{Res}_{\{0\}} \omega(f_1'', f_2, \cdots f_n) = (D_1', D_2, \cdots D_n)_{\{0\}} + (D_1'', \cdots D_n)_{\{0\}}.$$