Comment on "by our general method".

$\int_{W'} d\varphi = 0$, since $W' - W'^*$ has real codimension ≥ 2. We can show this by following the proof of Stokes' Theorem for Analytic Varieties on P33.

Finally, since W' meets V transversely in $m_{p_i}(V\cdot W)$ points in Δ_i" – where W' and V are both an-alytic with the natural orientation – and nowhere else,

$$\#(W\cdot V) = \#(W'\cdot V) = \sum m_{p_i}(V\cdot W)$$

as desired.

Summarizing,

The topological intersection number $\#(V\cdot W)$ of two analytic subvarieties of complementary dimension meeting in a finite set of points on a compact complex manifold is given by

$$\#(V\cdot W) = \sum_{p\in V\cap W} m_p(V\cdot W).$$

We may have to accept $\#(W\cdot V) = \#(W'\cdot V)$ as a definition.

The intersection multiplicity $m_p(V\cdot W)$ satisfies

$$m_p(V\cdot W) \geq 1$$

with equality holding if and only if V and W meet tra