$$= \sum \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} |\sigma|^2 \alpha_p^2 \overline{\alpha_q^2} = |\sigma|^2 T(V, \vec{\alpha^2})$$

$$\Rightarrow \quad \Delta_{z'} V = T(V, \vec{\lambda}) + |\sigma|^2 \sum_{j=2}^{n} T(V, \vec{\alpha^j}) \geq 0.$$

If ϕ is a positive (C^∞)-function with compact support in D, we have then $|\sigma| \leq \sigma_0(\epsilon)$

$$T(V, \vec{\lambda})(\phi) \geq -|\sigma|^2 \sum_{j=2}^{n} T(V, \vec{\alpha^j})(\phi) \geq -\epsilon.$$

This establishes (5), and hence the theorem.

$\ulcorner$ Given ϕ, & vectors $\vec{\alpha^j}$, $\sum_{j=2}^{n} T(V, \vec{\alpha^j})(\phi)$ is determined. $\Rightarrow$ For $|\sigma| \leq (\sigma_0 \epsilon)^{\frac{1}{2}}$, where $\sigma_0^{-1} = \sum_{j=2}^{n} T(V, \vec{\alpha^j})(\phi)$,

$$-|\sigma|^2 \sum_{j=2}^{n} T(V, \vec{\alpha^j})(\phi) \geq -\epsilon.$$

$\Rightarrow$ $T(V, \vec{\lambda})(\phi) \geq -\epsilon$ $\Rightarrow$ Since ϵ is arbitrary, $T(V, \vec{\lambda})(\phi) \geq 0$.

"Note": In case $n=1$,

$$T(V, \vec{\lambda}) = \frac{\partial^2 V}{\partial z \partial \bar{z}} |\lambda|^2 = \left(\frac{1}{4} \Delta V\right) |\lambda|^2.$$

This implies that the C'-plurisubharmonic functions can be identified with the $\mathbb{R}^2$-subharmonic functions."

Theorem 1 can be used very conveniently to establish the properties of plurisubharmonic functions from the kno