where $d\tau$ is the element of volume in C^n, B a ball of radius r, B^* the boundary of B, and α a unitary vector. If we write $l(V, x^\circ, r)$ for the mean of V on the sphere $|x - x^\circ| = r$, and put

$$\begin{cases} h_m(x) = -r^{2-m} & m > 2 \\ h_2(x) = \log r & m = 2 \end{cases}$$

for the Newtonian potential kernel in $\mathbb{R}^m$, we have:

$$(m-2)\int_B \Delta \, d\tau = \frac{\partial l(V, x^\circ, r)}{\partial h(r)} \geq 0.$$

Chapter IV.

Positive elements of an exterior complex algebra with involutions.

I. Introduction

The study of analytic functions of $n > 1$ complex variables, or more generally, the study of complex structures, involves homogeneous forms of type $(1,1)$:

$$t = i \sum_{p,q} t_{p,q} \, dz_p \wedge d\bar{z}_q, \quad p, q = 1, \ldots n. \quad (1)$$

with the condition $\sum t_{p,q} h_p \bar{h}_q \geq 0$ for every complex vector $\vec{h} = (h_p)$. Let us recall that with a real-valued plurisubharmonic function V, one can associate the following measure

$$\delta(V, \vec{h}) = \sum_{p,q} \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} h_p \bar{h}_q, \quad (2)$$