

which is positive for every vector \vec{h} from \mathbb{C}^n . However, in the following we prefer to formulate our condition for the corresponding exterior form t which is obtained by replacing $h_p h_q$ by $i dz_p \wedge d\bar{z}_q$. It can be written as $t = i dz d\bar{z} V$ and it is actually a generalized form (or a current in the sense of G. de Rham). Thus, we are led to the notion of a positive form of degree 1 with respect to the exterior algebra $E_{2n}(dz, d\bar{z})$. This notion can be extended to degrees p , $0 \leq p \leq n$. The positive forms of degree p are of type (p, p) and form a convex cone E_+^p . On the other hand, the coefficients can be taken either from a vector space (the case of currents), or from a ring (e.g. a ring of continuous functions). In the latter case, a monomial, which is the exterior product of p positive forms of degree 1, is still a positive form; thus we obtain a positive cone whose elements can be multiplied with each other.

2. Positive elements

First, let us consider the case of an exterior complex algebra E_{2n} over the complex number field K and with the involution $a \rightarrow \bar{a}$ defined by taking the complex conjugate in K . We shall take a basis $(w_1, w_2, \dots, w_n, \bar{w}_1, \dots, \bar{w}_n)$ invariant with respect to this involution; the basis $(w'_1, \dots, w'_n, \bar{w}'_1, \dots, \bar{w}'_n)$, which can be obtained from