
EDUARDO SANTILLAN ZERON, CINVESTAV

A broad view of q -plurisubharmonicity and q -pseudoconvexity

The main objective of this talk is to present the interesting relations that appears between the convex, plurisubharmonic, and holomorphic functions, and their generalisations: the q -convex, q -plurisubharmonic, and q -holomorphic functions. In particular, since convex and subharmonic functions are naturally defined as sub-solutions (in the viscous sense), their generalizations also have a *natural* definition as sub-solutions. Nevertheless, these interesting relations break apart when the q -plurisubharmonic functions are used to defined and analyse the q -pseudoconvex and relative q -pseudoconvex sets. in particular, we present two sets $U \subset V$ and a fixed neighbourhood W of the boundary bU , such that U is pseudoconvex in V , but every plurisubharmonic function defined on U is bounded from above on $W \cap U$.