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Im Rahmen der

AG Komplexe Analysis

laden wir zu folgendem Vortrag ein:

Polynomial convexity of finite union of totally-real subspaces of $\mathbb{C}^n$ of maximal dimension

(Dr. Sushil Gorai, Indian Institute of Science Education and Research, Kolkata)

am **Montag, den 13.06.2016, um 16 Uhr c.t. in Raum G.15.25**.

Abstract: We will begin the discussion with Weinstock's necessary and sufficient condition for polynomial convexity of compact subsets of the union of two totally-real subspaces of $\mathbb{C}^n$. The main question of our discussion is: *What happens if we increase the number of subspaces?* We consider finite union of totally-real subspaces of $\mathbb{C}^n$ of dimension n, say $P_0, \ldots, P_N$. With a mild transversality condition we can view the subspaces as: $P_0 = \mathbb{R}^n$, and $P_j = (A_j + i\mathbb{I})\mathbb{R}^n$, $j = 1, \ldots, N$, where $A_j \in \mathbb{R}^{n\times n}$, $j = 1, \ldots, N$. We first look more carefully at the union of totally-real planes in $\mathbb{C}^2$. We present a sufficient conditions in terms of the above matrices for polynomial convexity of compact subsets in this case. In the final part, we discuss some results for the union of totally-real subspaces in $\mathbb{C}^n$, $n \geq 2$.

Alle Interessenten sind herzlich eingeladen!

gez. Prof. N. Shcherbina