

1047-32-450

Chia-chi Tung* (chia.tung@mnsu.edu), Department of Math. and Stat., Minnesota State University, Mankato, Mankato, MN 56001. *A note on the weak holomorphicity and analyticity of distributions.* Preliminary report.

In this note, characterizations on a semi-Riemann domain of the weak holomorphicity of Cauchy-Riemann as well as Euler distributions are given. Also, the assertion that weak harmonicity implies the local solid mean-value property is demonstrated without potential theory, thus yielding an alternative proof the extended Weyl's Lemma. (Received February 03, 2009)