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Phillip S Harrington* (psharrin@uark.edu), SCEN 309, 1 University of Arkansas, Fayetteville, AR 72701. *Bounded Plurisubharmonic Exhaustion Functions in $\mathbb{C}\mathbb{P}^n$* . Preliminary report.

It is frequently helpful in the study of pseudoconvex domains to have a defining function r with the property that $-(-r)^s$ is plurisubharmonic for some $s > 0$. In Stein manifolds, Diederich and Fornaess showed that this is always possible on bounded pseudoconvex domains with C^2 boundaries. Ohsawa and Sibony proved the corresponding result in $\mathbb{C}\mathbb{P}^n$, using a result of Takeuchi to substitute for the lack of a global strictly plurisubharmonic function. In this talk, we will examine the possibility of extending the Ohsawa-Sibony result to domains with Lipschitz boundaries. (Received September 17, 2015)