1108-32-481 **David E Barrett*** (barrett@umich.edu), Math Dept., 530 Church St., Ann Arbor, MI 48109-1043, and **Dusty Grundmeier**. *Characterization of a family of functions arising in the study of strongly $\mathbb{C}$-convex domains.* Preliminary report.

A smoothly bounded domain Ω in a complex projective space is called "strongly $\mathbb{C}$-convex" if each complex tangent hyperplane for $b\Omega$ is disjoint from Ω and has minimal order of contact with $b\Omega$. The collection of complex tangent hyperplanes to a the boundary of a strongly $\mathbb{C}$-convex domain forms the boundary of a smoothly bounded strongly $\mathbb{C}$-convex domain Ω^* in the dual projective space. There is a natural contact diffeomorphism between $b\Omega$ and $b\Omega^*$; using this diffeomorphism we may equip $b\Omega$ with two different Hardy spaces.

In complex dimension one an arbitrary function on $b\Omega$ decomposes (uniquely, up to constants) as a sum of functions in the two Hardy spaces.

In higher dimension, when Ω is the projective image of a ball, a function on $b\Omega$ is the sum of functions in the two Hardy spaces if and only if it extends to a pluriharmonic function on Ω.

The talk will consider the problem of characterizing the functions arising as sums of functions in the two Hardy spaces for general strongly $\mathbb{C}$-convex domains in two-dimensional projective space. Work of other authors on the characterization of pluriharmonic boundary values will also be reviewed. (Received January 19, 2015)