

Meeting: 1006, Lubbock, Texas, AMS CP 1, Session for Contributed Papers

1006-30-255 **Roger Barnard** (barnard@math.ttu.edu), Lubbock, TX 79409, **David R. Martin***
(dmartin@math.ttu.edu), Lubbock, TX 79409, and **G. Brock Williams**
(williams@math.ttu.edu), Lubbock, TX 79409. *Maximizing Functionals Over a Class of*
Hyperbolically Convex Functions. Preliminary report.

We will discuss the problem of maximizing two functionals (modulus and argument of the derivative) over the class of hyperbolically convex functions having a fixed derivative at the origin. The existence and some of the properties of these functionals were, in general, discussed by R. Barnard, K. Pearce, and G. Ornas. Our current progress on finding the explicit maximals will be given. These problems were suggested in the work of C. Pommerenke and D. Mejía and have eluded researchers in the past. (Received February 15, 2005)