Meeting: 1000, Albuquerque, New Mexico, SS 2A, Special Session on Several Complex Variables and CR Geometry

1000-32-33 Albert Boggess and Daniel Jupiter\* (jupiter@math.tamu.edu), Department of Mathematics, Texas A & M University, 3368 TAMU, College Station, TX 77843-3368. Semi-global approximation of CR functions on Bloom-Graham model graphs in  $\mathbb{C}^n$ .

We briefly mention some known results regarding semi-global approximation of CR functions on imbedded CR manifolds by entire functions, and present a new result in this direction.

In the Bloom-Graham normal form for a CR manifold, the lowest order terms of the defining functions are partially decoupled in their dependence on the coordinates in the complex normal directions. We define a Bloom-Graham model graph: a generic CR manifold of real codimension between 1 and n - 1, globally given as a graph, where the graphing functions have the above mentioned decoupled characteristic. Assuming a growth condition on the graphing functions of such a manifold, we prove the following: any CR function on the manifold can be approximated uniformly on compacts by entire functions. (Received July 30, 2004)