

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

1000-32-54            **John P. D'Angelo\*** (jpda@math.uiuc.edu), Dept. of Mathematics, 1409 W Green St, Urbana, IL 61801. *Invariant CR Mappings.*

We consider group-invariant CR Mappings from Spheres to Hyperquadrics. Given a finite subgroup of the unitary group we construct a unique invariant polynomial with certain properties; from this polynomial we obtain invariant CR mappings to hyperquadrics. When the groups are cyclic, the invariant polynomial is a circulant determinant, and it exhibits remarkable number-theoretic and combinatorial properties. As a consequence we obtain a large collection of polynomials whose coefficients are integers and exhibit striking primality behavior. (Received August 09, 2004)