1022-58-34 Dejenie A Lakew* (dlakew@vsu.edu), Department of Mathematics & Computer Science, Virginia State University, Petersburg, VA 23806, and John Ryan (jryan@uark.edu), University of Arkansas, Department of Mathematics, Fayetteville, AR 72701. The Intrinsic П Operator on Domain Manifolds.

The main theme of the paper is to study the hypercomplex Π operator over C^{n+1} via real and compact n+1 dimensional manifolds called Domain manifolds. We use an intrinsic Dirac operator introduced by John Ryan and the generalized definition of a Π operator given by W. Sproessig to define an intrinsic Π operator over such manifolds and there by develop some analogous results including mapping properties. We also look at its use in solving Clifford beltrami equation.

(Received September 02, 2006)