962-53-1224   **Andrew J Bucki*** (`abucki@ossm.edu`), 1141 North Lincoln Boulevard, Oklahoma City, OK 73104. *Groups in the category of para-φ-manifolds.*

Let M be an n-dimensional differentiable manifold. An endomorphism of M given by a tensor field φ of type (1,1) and constant rank r which satisfies $\varphi^3 - \varphi = 0$ is called a para-φ-structure and M is a para-φ-manifold. Let M_i be a para-φ-manifold with a para-φ-structure φ_i ($i = 1, 2$) and $f : M_1 \to M_2$. Then f is a para-φ-map if $\varphi_2 \circ f_* = f_* \circ \varphi_1$. If G is a Lie group with an integrable para-φ-structure φ and both L_g and $R_g : G \to G$ are para-φ-maps, then G is called a para-φ-Lie group. A para-φ-structure φ with parallelizable kernel is an almost r-paracontact structure on M. In this paper some properties of para-φ-manifolds are studied. It is shown that every para-φ-Lie group G is the quotient of the product of an almost product Lie group and a Lie group with trivial para-φ-structure by a discrete subgroup. (Received October 02, 2000)