

1062-05-265

Robert Jajcay* (robert.jajcay@indstate.edu), Dept of Math & CS, Indiana State University, Terre Haute, IN 47809. *Theory of Skew-Morphisms*.

The concept of a skew-morphism has been introduced in the 1990's during the speaker's visit to the Syracuse University. The existence of a skew-morphism is known to be equivalent to the regularity (i.e., regular action of the orientation preserving automorphism group in its action on the set of darts) of a Cayley map. Since their introduction, they also have been shown useful by a number of researchers in several different areas, and can also be seen as a purely group-theoretical concept related to cyclic extensions of groups.

In our talk, we survey the general properties of skew-morphisms of finite groups as well as some of their most important applications. (Received August 10, 2010)