1026-20-207   **Zoran Šunić***, Department of Mathematics, Texas A&M University, College Station, TX 77843.
On groups with L-presentations.

A finite L-presentation is a quadruple $P = \langle X \mid Q \mid R \mid \Phi \rangle$, where X is a finite set, Q and R are finite sets of reduced group words over X, and Φ is a finite set of endomorphisms of the free group $F(X)$. Such a quadruple defines a group through the ordinary presentation

$$G = G_P = \langle X \mid Q \cup \bigcup_{\phi \in \Phi^*} \phi(R) \rangle.$$

Therefore, a presentation for G is obtained by closing the set of relators in R under the action of the monoid Φ^* of endomorphisms of the free group $F(X)$ generated by the endomorphisms in Φ and adding the relators from the set Q.

Groups with finite L-presentations occur naturally in many situations (in the theory of one-relator groups, HNN-extensions, self-similar branch groups, etc.).

We present some new results and examples of L-presentations (some of which are coming from iterated monodromy groups of post-critically finite rational maps). (Received February 27, 2007)

1