Volodymyr Nekrashevych* (nekrash@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843. Combinatorial models of Julia sets and Group Theory. Preliminary report.

We will show how iterated monodromy groups can be used to construct polyhedral models of Julia sets of hyperbolic dynamical systems. Examples from complex dynamics in several variables (and from Teichmueller theory) will be presented. (Received February 02, 2009)