Volodymyr Nekrashevych* (nekrash@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843-3368. Operator algebras, groups and Julia sets.

We will discuss a duality between self-similar groups (and their infinite Schreier graphs) and Julia sets of expanding maps. This duality can be formulated both in terms of the associated operator algebras and in term of symbolic representations of both objects. Possible applications to analysis on fractals will be outlined. (Received September 04, 2006)