1131-37-290   **Volodymyr Nekrashevych*** (`nekrash@math.tamu.edu`), Dept of Mathematics, College Station, TX 77843. *Julia sets with local cut points and amenable groups.* Preliminary report.

We will discuss how topological properties of the Julia set of a complex rational function can be used to prove amenability of the iterated monodromy groups. Namely, we will show that if the Julia set is "gasket like", then the iterated monodromy group is amenable. This is a joint work with K. Pilgrim and D. Thurston. (Received July 17, 2017)