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Spencer Dowdall*, 1409 W Green Street, Urbana, IL 61801, and **Ilya Kapovich** and **Christopher J. Leininger**. *Unbounded asymmetry of free group automorphism stretch factors.*

Every automorphism of a finite rank free group has a well-defined “stretch factor” measuring the exponential growth rate of words under iteration of the automorphism. It is easy to see that the stretch factor of an automorphism and its inverse need not agree. However, Handel and Mosher showed that this discrepancy is uniformly bounded among all fully irreducible automorphisms of the group. In this talk, I will explain how to use new technology describing the splittings of a free-by-cyclic group to show that this uniform bound necessarily depends on the rank of the group. More precisely, I will describe an infinite family ϕ_n of fully irreducible automorphisms for which ratio of the logarithm of the stretch factor of ϕ_n to that of ϕ_n^{-1} tends to infinity. This is joint work with Ilya Kapovich and Christopher J. Leininger. (Received January 27, 2015)