1116-30-1270 **Kevin Wildrick*** (`kevin.wildrick@montana.edu`). *Quasiconformal mappings via iterated function systems.* Preliminary report.

The family of quasiconformal mappings in the plane is very rich, as attested to by the measurable Riemann mapping theorem. However, in higher dimensions, the richness of this family is still unclear. The situation in the sub-Riemannian Heisenberg group is even less clear; while it is homeomorphic to three-dimensional space, its quasiconformal geometry is strongly influenced by the two-dimensional horizontal distribution. We will discuss the construction of quasiconformal mappings using iterated function systems, and show that this method can produce mappings that substantially distort the dimension of many subsets in these settings. This reports on joint work with Zoltán Balogh and Jeremy Tyson. (Received September 18, 2015)