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Kelly Brooke Yancey* (kbyancey1@gmail.com). *Uniformly Rigid Homeomorphisms*. Preliminary report.

A homeomorphism T of a compact metric space X is said to be uniformly rigid if there exists an increasing sequence of natural numbers (n_m) such that T^{n_m} converges to the identity uniformly on X . We will discuss the construction of a large family of weakly mixing homeomorphisms of the two-torus and the Klein bottle that are uniformly rigid. We will also discuss the structure of these uniform rigidity sequences. Specifically we will show that if a sequence of natural numbers satisfies a certain growth rate, then we can construct a weakly mixing homeomorphism of the two-torus that is uniformly rigid with respect to that sequence. (Received August 12, 2012)