

ABSTRACT. We prove a generalization of the Poincaré-Birkhoff theorem for the open annulus showing that if a homeomorphism satisfies a certain twist condition and the nonwandering set is connected, then there is a fixed point. Our main focus is the study of bounded homeomorphisms of the open annulus. We prove a fixed point theorem for bounded homeomorphisms and study the special case of those homeomorphisms possessing at most one fixed point. Lastly we use the existence of rational rotation numbers to prove the existence of periodic orbits.