

In this talk we will focus on dynamical systems exhibiting rigidity; that is, systems  $(X, T)$  where some sequence of iterates  $T^{q_n}$  approaches the identity function on  $X$ . I will present an original result showing that some variant of this property implies equidistribution of square iterates  $(T^{n^2}(x))$  along some subsequence, for every starting point  $x$ . Surprisingly, the method relies heavily on multiplicativity of the polynomial  $n^2$ , and doesn't generalize to all polynomials. We will also discuss related questions and potential further directions of research.