

ABSTRACT. The classical self-similar fractals can be obtained as fixed points of the iteration technique introduced by Hutchinson. The well known results of Mosco show that typically the limit fractal equipped with the invariant measure is a (normal) space of homogeneous type. But the doubling property along this iteration is generally not preserved even when the starting point, and of course the limit point, have both the doubling property. We prove that the elements of Hutchinson orbits satisfy the doubling property except perhaps for radii which decrease to zero as the step of the iteration grows, and in this sense, we say that the doubling property of the limit is achieved gradually. We use this result to prove the uniform upper doubling property of the orbits.