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SOME GENERALIZATIONS OF DISTALITY

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Abstract. We incorporate the notion of a distal system into the continuum theory [14] through the notion of the *continuum-wise distal homeomorphism*. Results concerning distal homeomorphisms will be generalized to the case of cw-distal homeomorphisms. Notions of cw-distality for measures will be studied. We also analyze the variation of distality for flows obtained by making the proximal cell [1] to depend on a given subset of the full set of reparametrizations. Some properties of these reparametrized distality will be obtained.

1. Introduction

1.1. Continuum-wise distal homeomorphisms. Let $f\colon X \to X$ be a homeomorphism of a metric space (X, d). We say that f is *expansive* [19] if there is $\varepsilon > 0$ such that if $d(f^n(x), f^n(y)) \leq \varepsilon$ for every $n \in \mathbb{Z}$ then $x = y$. Equivalently,

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