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**Tim Bedford** and **Sergiy Borodachov\*** ([aborodachov@towson.edu](mailto:aborodachov@towson.edu)), Department of Mathematics, Towson University, 8000 York Road, Towson, MD 21252, and **Jeff Geronimo**. *A Topological Separation Condition for Fractal Attractors.*

We consider finite systems of contractive homeomorphisms of a complete metric space, which satisfy the minimality property (i.e. are non-redundant on every level). In general this separation condition is weaker than the strong open set condition and is not equivalent to the weak separation property. We prove that this separation condition is equivalent to the strong Markov property. We also show that the set of  $N$ -tuples of contractive homeomorphisms, having the minimality property, is a  $G_\delta$  set in the topology of pointwise convergence of every component mapping with an additional requirement that the supremum of contraction coefficients of mappings in the sequence be strictly less than one. We find a class of  $N$ -tuples of  $d \times d$  invertible contraction matrices, which define systems of affine mappings in  $\mathbf{R}^d$  having the minimality property for almost every  $N$ -tuple of fixed points with respect to the  $Nd$ -dimensional Lebesgue measure. (Received January 07, 2011)