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Iterated Iteratedly Piecewise Continuous Function Order Pattern Probability Distributions.

Given a function f from $[0,1]$ to itself and a point $x \in [0,1]$, we consider the order of the iterates x, $f(x)$, $\ldots$, $f^{n-1}(x)$, an element of S_n. For suitable functions f, the choice of a random point in $[0,1]$ induces a probability distribution on S_n. We characterize probability distributions that arise thusly when f and its iterates are restricted to be piecewise continuous. (Received September 22, 2010)