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Douglas Cenzer* (cenzer@ufl.edu), Department of Mathematics, P.O. Box 118105, University of Florida, Gainesville, FL 32605. *Algorithmic randomness of closed sets and continuous functions.*

Notions of effective randomness are proposed for trees $T \subseteq \{0, 1\}^{<\omega}$, for closed subsets of $\{0, 1\}^\omega$, and for continuous functions on $\{0, 1\}^\omega$. Random closed sets have measure zero, are perfect, and contain no computable elements. Random continuous functions map computable reals to random reals. The set of zeroes of a random continuous function is a random closed set. No Π_1^0 class can be random and no computable function can be random. (Received September 05, 2006)