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**Robert H. Gilman\*** ([rgilman@stevens.edu](mailto:rgilman@stevens.edu)). *Sampling negligible subsets.*

Let  $X$  be an infinite decidable subset of the set of all words over some finite alphabet. If  $X$  is negligible in the sense that the the proportion of words of length  $n$  which lie in  $X$  converges to 0 exponentially fast, then the usual methods of sampling words in  $X$  do not work well. We discuss another method which does better. Because our approach is based on Kolmogorov complexity, it cannot be implemented directly; but one may try heuristic variations. Perhaps surprisingly, they seem to work. We present some non-cryptologic experimental results, and speculate on cryptologic applications. (Received February 02, 2019)