1064-03-270     **Bjørn Kjos-Hanssen\*** (`bjoern@math.hawaii.edu`), Department of Mathematics, University of Hawai'i–Mānoa, 2565 McCarthy Mall, Honolulu, HI 96822. *Recovering randomness from an asymptotic Hamming distance.*

A notion of asymptotic Hamming distance suitable for the study of algorithmic randomness of infinite binary sequences is developed. As an application, it is shown that there is no fixed procedure that computes a Mises-Wald-Church stochastic sequence from a complex sequence. Here a sequence is complex if its prefixes have Kolmogorov complexity bounded below by an unbounded, nondecreasing computable function. (Received September 12, 2010)