

1123-03-343

Noam Greenberg, Joseph S. Miller, Alexander Shen and Linda Brown Westrick*
(westrick@uconn.edu). *Dimension 1 sequences are close to randoms*. Preliminary report.

We give another answer to the informal question: are sequences of effective Hausdorff dimension 1 just random sequences that have been “messed up”? We show that a sequence has effective Hausdorff dimension 1 if and only if it differs from a Martin-Loef random sequence on a set of density zero. The proof makes essential use of Harper’s Theorem concerning finite combinatorics of Hamming spheres. We also ask and answer similar questions for sequences of effective dimension $s < 1$. (Received August 29, 2016)