1145-03-1712 **David J. Webb***, dwebb@math.hawaii.edu. *On Several New Notions of Algorithmic Dimension.* Preliminary report.

Following the work of Freer and Kjos-Hanssen on complex packing dimension, we investigate a new notion of *inescapable* dimension, obtained by modifying effective packing dimension to consider all infinite computable sets in place of all intervals $[n, \infty)$. It is shown that while the inescapable and complex packing dimensions are both bounded above and below by the effective packing and Hausdorff dimensions, respectively, these two newer notions are incomparable. We also examine two families of dimension obtained from all infinite sets (co-)enumerable in an oracle, and demonstrate that in both cases an oracle A is Turing reducible to another oracle B if and only if the dimension induced by A is dominated by the dimension induced by B for all strings $X \in 2^\omega$. (Received September 24, 2018)