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Paul B Deignan* (deignan@ada-vs.com), 8800 Sagebrush Trail, Aubrey, TX. *Information Theoretic Partition Determination for Data Mining.*

Association of descriptors to a set of target attributes is measured by an unbiased estimate of mutual information over a nonuniform partition. The algorithm of information-theoretic data association is shown to scale with $O(N)$ dominated by a measure of significance of the estimate of entropic association. It is shown that the measure of statistical significance of the entropic estimates may also be used to bound the combinatorial search through multidimensional partitions thus allowing for the optimization of partition structure under the unbiased entropic measure of data association. (Received September 17, 2013)