KATHRYN HARE, Dept. of Pure Mathematics, University of Waterloo Hausdorff and packing measures of balanced Cantor sets

For central Cantor sets, such as the classical middle-third Cantor set, it is well known how to calculate their Hausdorff and packing dimensions. This is also known for Cantor-like sets associated with decreasing sequences. In this talk we will discuss this problem for a more general class of perfect, totally disconnected sets that we call balanced Cantor sets. We also give bounds on the h-Hausdorff and h-packing measures for these sets and we see how these compare with the measures of all other compact sets whose complement consists of a collection of disjoint open intervals of the same lengths as the original set.