ROBERT DAWSON, Saint Mary's University, Halifax, NS Some Chebyshev Sets in Hyperspaces

A set in a metric space has the "Chebysev property" if the metric projection function is well defined; that is, if every point has a unique nearest neighbour. In Euclidean spaces this is very closely related to convexity; but even in comparatively familiar spaces such as the "taxicab plane" neither property implies the other.

By a hyperspace over a metric space we understand a collection of compact sets with the Hausdorff metric. There are various apparently unrelated types of Chebysev set in such hyperspaces; we will examine some of these and look at some results and conjectures that might lead to a complete characterization.