D-spaces

Mirna Dzamonja

Let X be a topological space, and τ its topology. An open neigbourhood assignmenet ONA on X is a function assigning to each x in X a member of τ that contains x. A topological space is called a D space if for every ONA U of X there is a closed discrete subspace D of X such that $\{U(x) : xinD\} = X$. We show that it is consistent that every locally countable space X of size $\leq \aleph_2$ in which every open subspace of size $\leq \aleph_1$ is strongly D, is D itself.

Address: School of Mathematics, University of East Anglia, Norwich, NR4 7TJ, UK
E-mail: h020@uea.ac.uk