AN CLASS OF INVISIBLE SPACES

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Abstract. A space, X, is said to have a *small diagonal* if there is no ω_1-sequence in $X^2 \setminus \Delta(X)$ that converges to $\Delta(X)$. Clearly metrizable spaces (even those with a G_δ-diagonal) have small diagonals. An old conjecture states that the converse is true for compact Hausdorff spaces: every csD space (short for **c**ompact **s**mall **D**iagonal) is metrizable. Thus far all partial results point in the direction of a positive solution; this means that we have no illustrative/ instructive examples of csD spaces: non-metrizable csD spaces have thus far remained invisible. I will survey older and more recent work on this conjecture.

This represents joint work with Alan Dow.