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## On Pixley-Roy hyperspaces

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On Pixley-Roy hyperspaces.

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This is a joint work with I. Juhász to appear in Topology and its Appl. Let  $X$  be a topological space.  $X$  is said to have property  $C$  if for all  $X' \in [X]^{\omega_1}$  any family of cardinality  $\aleph_1$  of open subsets of  $X'$  has a countable network.

Theorem 1. Assuming C.H. there exists a 0-dimensional Hausdorff space  $X$  having property  $C$  such that the Pixley-Roy hyperspace  $F[X]$  does not satisfy the countable chain condition.

Theorem 2. Assuming  $MA_{\aleph_1}$ , a  $T_2$  space  $X$  satisfies condition  $C$  iff its Pixley-Roy hyperspace satisfies the countable chain condition.