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John P. Reynolds* (reynoldsj@hendrix.edu), Department of Mathematics, Hendrix College,
1600 Washington Ave., Conway, AR 72032. *Cardinal Invariants of Pretopologies.*

In 1969, Arhangel'skii proved that if X is a Hausdorff topological space, then $|X| \leq 2^{\chi(X)L(X)}$. This result has subsequently been generalized and adapted to provide a variety of cardinality bounds for different topological spaces. We extend this line of inquiry to convergence spaces and in particular to the so-called pretopological spaces.

If X is a Hausdorff topological space, then a subset A of X is called an H-set if every filter on A has a θ -adherent point in X . A particular use of cardinality bounds as described above is in characterizing which subsets of X can possibly be H-sets. Our hope is to further these characterizations by considering cardinal invariants of pretopological spaces. (Received September 11, 2016)