CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, October 20
2:00 – 3:00 PM
Maria Sanford, Room 101

COUNTABLY COMPACT HYPERSPACES

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ABSTRACT

The Vietoris hyperspace H(X) of a space X is known to becompact iff X itself is compact, however no reasonable criterion is known for when H(X) is countably compact. We conjecture that X being u-compact for some (free) ultrafilter on \omega (or equivalently: having all powers of X countably compact) is such a criterion. In this talk we present some results that seem to support this conjecture.We also use these results to construct (consistent) examples of countably compact spaces with nice additional properties (like first countability or normality) whose hyperspaces are not countably compact.

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