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**Peter J Nyikos\*** (nyikos@math.sc.edu), Dept. of Mathematics, University of South Carolina, Columbia, SC 29208, and **Heikki Junnila**. *Utterly normal spaces*. Preliminary report.

A space is *utterly normal* if it has a magnetic base system. This is defined as a family of neighborhood bases  $\mathcal{B}(x)$  for each point  $x$  with the following property: If  $B_x \in \mathcal{B}(x)$  and  $B_y \in \mathcal{B}(y)$  and  $B_x \cap B_y \neq \emptyset$  then either  $x$  is in the closure of  $B_y$  or  $y$  is in the closure of  $B_x$ .

It follows from the Borges criterion that every utterly normal space is monotonically normal, but the question of whether the converse is true has been an open problem since the concept was introduced in Peter Collins's article "Monotone normality" [Topology and its Appl. 74 (1996) 179–198].

In fact, we do not even know whether every  $M_0$  space is utterly normal. Nor do we know whether every utterly normal space is hereditarily normal, unlike the case with monotonically normal spaces.

On the other hand, we do know that P-spaces, suborderable spaces, compact monotonically normal spaces, Lashnev spaces, and  $F_\sigma$ -metrizable stratifiable spaces are utterly normal. Other properties will be mentioned as time permits. (Received August 02, 2011)