

1067-54-1854

Mehrdad Namdari* (namdari@ipm.ir), Department Of Mathematics, Shahid Chamran University, 61357 Ahvaz, Khoozestan, Iran. *A Generalization of Scattered spaces.*

a -scattered spaces are introduced and studied. It is shown that every continuous image of a compact Hausdorff a -scattered space X (i.e., every subset A of X with $|A| \geq a$ has an isolated point relative to A and a is the least regular cardinal with this property) is b -scattered for some $b \leq a$. Consequently, if X is a compact Hausdorff a -scattered space, where $a \leq c$ and c is the cardinality of continuum, then $a = \aleph_0$ the first infinite cardinal and X is scattered. Surprisingly, it follows that in any compact Hausdorff space X , every non-empty subset has an isolated point if and only if every uncountable subset of X has an isolated point. (Received September 22, 2010)