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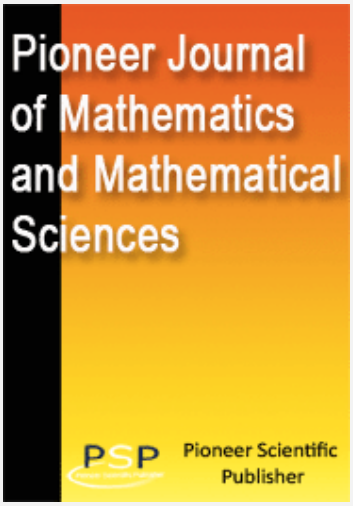

INFINITELY MANY TOPOLOGICAL PROPERTY CHARACTERIZATIONS FOR EACH WEAKLY *P*o PROPERTY

Charles Dorsett

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Abstract

In 1975 it was proven that a space is R_1 iff its T_0-identification space is Hausdorff. Using R_1 and T_2 as a model, in 2015 weakly *P*o properties, which includes T_2, were introduced and investigated. In 1961, the following characterizations of T_2 were given: "For a space (X, T), the following are equivalent: (a) (X, T) is T_2, (b) (X, T) is R_1 and T_1, and (c) (X, T) is R_1 and T_0. As would be required for a generalization, within the 2015 paper it was proven that for a topological property P for which weakly *P*o exists, a space has property *P*o iff it is weakly *P*o and T_0. Thus questions about the uniqueness of weakly *P*o in the characterization of *P*o arise leading to the results in this paper that give infinitely many topological properties which together with T_0 are equivalent to *P*o.

Keywords and phrases: topological properties, T_0-identification spaces, weakly P.