

pr - Homeomorphisms On Quotient Spaces ¹

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Abstract

This paper is aimed to introduce pr - homeomorphisms a new weaker form of g -homeomorphisms. Further the notion of pr^* - homeomorphisms is defined. Different characterizations of the introduced concept are found to develop a good insight into the spaces. Some properties of pr - homeomorphisms and pr^* - homeomorphisms from quotient space to other spaces are obtained.

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References

- [1] N. Biswas, *On some mappings in topological spaces*, Bull.Cal. Math. Soc., 61(1969), 127-135.
- [2] S. G. Crossley and S. K. Hildebrand, *Semi-topological properties*, Fund. Math., 74(1972), 233-254.
- [3] R. Devi, K. Balachandran and H. Maki, *Semi-generalized homeomorphisms and generalized semi-homeomorphisms in topological spaces*, Indian J. Pure Appl. Math., 26(1995), 271-284.
- [4] J. E. Joseph and M. K. Kwack, *On S-closed spaces*, Proc. Amer. Math. Soc., 80 (1980), 341-348.

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- [5] N. Levine, *Generalized closed sets in topology*, Rend. Circ. Mat Palermo, 19(1970), 89-96.
- [6] H. Maki, P. Sundaram and K. Balachandran, *On generalized homeomorphisms in topological spaces*, Bull. Fukuoka Univ Ed. Part III, 40 (1991) 13-21.
- [7] A. S. Mashour, M. E. Abd EI-Monsef and S. N. EI-Deeb, *On pre-continuous and weak pre-continuous mappings*, Proc. Math and Phys. Soc. Egypt, 53(1982), 47-53.
- [8] S. Nandini and I. Arockiarani, *pr-closed sets in topological spaces*, Acta Ciencia Indica, Vol. XXXIII M, No. 4 (2007), 1499-1506.
- [9] T. Neubrunn, *On semi-homeomorphisms and related mappings*, Acta Fac. Rerum Natur. Univ. Comenian Math., 33(1977), 133-137.
- [10] T. Noiri, *A note on semi-homeomorphisms*, Bull. Cal. Math. Soc., 76 (1984),1-3.
- [11] N. Palaniappan and K. C. Rao, *Regular generalized closed sets*, Kyungpook Math, J., 33(1993), 211-219.
- [12] Z. Piotrowski, *On semi-homeomorphisms*, Bull. Un. Mat. Ital., 16(1979), 501-509.
- [13] D. Sivaraj, *Semi-homeomorphisms*, Acta Math. Hungar., 48 (1986), 139-145.
- [14] J. Umehara and H. Maki, *A note on the homeomorphic image of a T^V space*, Mem. Fac. Sci. Kochi Univ. Ser. A. Math., 10 (1989), 39-45.

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