

WEAKLY g -VOLTERRA SPACES IN GENERALIZED TOPOLOGICAL SPACES

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ABSTRACT. In this paper, we introduce the concept of weakly g -Volterra space in generalized topological spaces and study some of its properties. Also we study the relation between g -Volterra space and weakly g -Volterra space and obtain some mapping theorems on g -Volterra space and weakly g -Volterra space.

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REFERENCES

- [1] J.Cao and D.Gauld, *Volterra spaces revisited*, J.Aust.Math.Soc., 79 (2005), 61-76.
- [2] Jiling Cao, and Heikki.J.K.Junnila, *When is a Volterra Space Baire?*, Topology Appl., 154 (2007), 527-532.
- [3] A.Csaszar, *Generalized open sets*, Acta Math.Hungar., 75 (1997), 65-87.
- [4] A.Csaszar, *Generalized open sets in generalized topologies*, Acta Math.Hungar., 106 (2005), 53-66.
- [5] A.Csaszar, *Generalized topology and Generalized continuity*, Acta Math.Hungar., 96 (2002), 351-357.
- [6] David Gauld and Zbigniew Piotrowski, *On Volterra Spaces*, Far East J. Math. Sci.1 (1993), 209-214.
- [7] David Gauld and Zbigniew Piotrowski, *On Volterra Spaces II*, Ann.N.Y.Acad.Sci., 806 (1996), 169-173.
- [8] D.Gauld, S.Greenwood, Z.Piotrowski, *On Volterra Spaces III*, Topological operations,Topology Proc., 23 (1998), 167-182.
- [9] G.Gruenhage, D.Lutzer, *Baire and Volterra Spaces*, Proc.Amer.Math.Soc., 128 (2000), 3115-3124.
- [10] P.Jeyanthi and G.Geetha, *Generalized Volterra Spaces*, An.Univ. Oradea, Fasc. Mat., Vol.XXVII(1) (2020), 43-46.
- [11] P.Jeyanthi, G.Geetha, Ahmad Al-Omari, *Generalized Developable Spaces*, An.Univ. Oradea, Fasc. Mat., Vol.XXIX(1) (2022), 93-102.
- [12] Z.Li and F.Lin, *Baireness on Generalized Topological Spaces*, Acta Math.Hungar., 139 (4) (2013), 320-336.
- [13] Milan Matejdes, *Generalized Volterra Spaces*, Int. J. Pure Appl. Math 85 : 5 (2013), 955-963.
- [14] W.K.Min, *Weak continuity on generalized topological spaces*, Acta Math.Hungar., 124 (2009), 73-81.
- [15] W.K.Min, *Some results on generalized topological spaces and generalized systems*, Acta Math.Hungar., 108 (2005), 171-181.
- [16] S.Spadaro, *P-Spaces and the Volterra Property*, Bull.Australian Math.Soc., 87 (2) (2013), 339-345.
- [17] V.Volterra, *Alcune Osservazioni sulle Funzioni Punteggiate Discontinue*, Giornale di Matematiche, 19 (1881), 76-86.

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