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*On  $\alpha$ -embedded sets and extension of mappings*

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**Abstract:** We introduce and study  $\alpha$ -embedded sets and apply them to generalize the Kuratowski Extension Theorem.

**Keywords:**  $\alpha$ -embedded set;  $\alpha$ -separated set; extension

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#### REFERENCES

- [1] Blair R., *Filter characterization of  $z$ -,  $C^*$ -, and  $C$ -embeddings*, Fund. Math. **90** (1976), 285–300.
- [2] Blair R., Hager A., *Extensions of zero-sets and of real-valued functions*, Math. Z. **136** (1974), 41–52.
- [3] Corson H., *Normality in subsets of product spaces*, Amer. J. Math. **81** (1959), 785–796.
- [4] *Encyclopedia of General Topology*, edited by K.P. Hart, Jun-iti Nagata and J.E. Vaughan, Elsevier, 2004.
- [5] Engelking R., *General Topology. Revised and completed edition*, Heldermann Verlag, Berlin, 1989.
- [6] Gillman L., Jerison M., *Rings of Continuous Functions*, Van Nostrand, Princeton, 1960.
- [7] Kalenda O., Spurný J., *Extending Baire-one functions on topological spaces*, Topology Appl. **149** (2005), 195–216.
- [8] Karlova O., *Baire classification of mappings which are continuous with respect to the first variable and of the  $\alpha$ 'th functionally class with respect to the second variable*, Mathematical Bulletin NTSH **2** (2005), 98–114 (in Ukrainian).
- [9] Karlova O., *Classification of separately continuous functions with values in  $\sigma$ -metrizable spaces*, Appl. Gen. Topol. **13** (2012), no. 2, 167–178.
- [10] Kombarov A., Malykhin V., *On  $\Sigma$ -products*, Dokl. Akad. Nauk SSSR **213** (1973), 774–776 (in Russian).
- [11] Kuratowski K., *Topology, Vol. 1*, Moscow, Mir, 1966 (in Russian).
- [12] Lukeš J., Malý J., Zajíček L., *Fine Topology Methods in Real Analysis and Potential Theory*, Springer, Berlin, 1986.
- [13] Ohta H., *Extension properties and the Niemytski plane*, Appl. Gen. Topol. **1** (2000), no. 1, 45–60.