

References

- [1] S. Al-Addasi and H. Al-Ezeh. Bipartite diametrical graphs of diameter 4 and extreme orders. *International Journal of Mathematics and Mathematical Sciences*, 2008:11, 2008. Article ID 468583. <https://doi.org/10.1155/2008/468583>
- [2] M. Bestvina. R-trees in topology, geometry and group theory. In R. J. Daverman and R. B. Sher, editors, *Handbook of Geometric Topology*, pages 55–91. Nort-Holland, Amsterdam, 2002. <https://doi.org/10.1016/B978-044482432-5/50003-2>
- [3] J. Beyrer and V. Schroeder. Trees and ultrametric möbius structures. *p-adic Numbers Ultrametr. Anal. Appl.*, 9(4):247–256, 2017. <https://doi.org/10.1134/S207004661704001X>
- [4] V. Bilet, O. Dovgoshey, and R. Shanin. Ultrametric preserving functions and weak similarities of ultrametric spaces. *p-Adic Numbers Ultrametric Anal. Appl.*, 13(3):186–203, 2021. <https://doi.org/10.1134/S207004662103002X>
- [5] W. R. Brian. Completely ultrametrizable spaces and continuous bijections. *Topol. Proc.*, 45:233–252, 2015.
- [6] W. R. Brian and A. W. Miller. Partitions of 2^ω and completely ultrametrizable spaces. *Topolgy Appl.*, 184:61–71, 2015. <https://doi.org/10.1016/j.topol.2015.01.014>
- [7] N. Brodskiy, J. Dydak, J. Higes, and A. Mitra. Dimension zero at all scales. *Topology Appl.*, 154(14):2729–2740, 2007. <https://doi.org/10.1016/j.topol.2007.05.006>
- [8] D. Burago, Y. Burago, and S. Ivanov. *A Course in Metric Geometry*, volume 33 of *Graduate Studies in Mathematics*. Amer. Math. Soc., Providence, RI, 2001. <https://doi.org/10.1090/gsm/033>
- [9] G. Carlsson and F. Mémoli. Characterization, stability and convergence of hierarchical clustering methods. *J. Machine Learn. Res.*, 11(3/1):1425–1470, 2010.
- [10] E. Colebunders and R. Lowen. Zero dimensionality of the Čech-Stone compactification of an approach space. *Topology Appl.*, 273:106973, 2020. <https://doi.org/10.1016/j.topol.2019.106973>
- [11] E. Colebunders and M. Sioen. The Banaschewski compactification revisited. *J. Pure Appl. Algebra*, 223(12):5185–5214, 2019. <https://doi.org/10.1016/j.jpaa.2019.03.017>
- [12] E. D. Demaine, G. M. Landau, and O. Weimann. On Cartesian Trees and Range Minimum Queries. In *Proceedings of the 36th International Colloquium, ICALP 2009, Rhodes, Greece, July 5-12, 2009, Part I*, volume 5555 of *Lecture notes in Computer Science*, pages 341–353. Springer-Berlin-Heidelberg, 2009. https://doi.org/10.1007/978-3-642-02927-1_29
- [13] R. Diestel. *Graph Theory*, volume 173 of *Graduate Texts in Mathematics*. Springer, Berlin, third edition, 2005.

- [14] D. Dordovskyi, O. Dovgoshey, and E. Petrov. Diameter and diametrical pairs of points in ultrametric spaces. *p-adic Numbers Ultrametr. Anal. Appl.*, 3(4):253–262, 2011.
<https://doi.org/10.1134/S2070046611040017>
- [15] O. Dovgoshey. Semigroups generated by partitions. *Int. Electron. J. Algebra*, 26:145–190, 2019. <https://doi.org/10.24330/ieja.587041>
- [16] O. Dovgoshey. Combinatorial properties of ultrametrics and generalized ultrametrics. *Bull. Belg. Math. Soc. Simon Stevin*, 27(3):379–417, 2020.
<https://doi.org/10.36045/bbms/1599616821>
- [17] O. Dovgoshey. Isomorphism of trees and isometry of ultrametric spaces. *Theory and Applications of Graphs*, 7(2), 2020. Article 3.
<https://doi.org/10.20429/tag.2020.070203>
- [18] O. Dovgoshey and M. Küçükaslan. Labeled trees generating complete, compact, and discrete ultrametric spaces. *Ann. Comb.*, pages 1–23, 2022.
<https://doi.org/10.1007/s00026-022-00581-8>
- [19] O. Dovgoshey and J. Luukkainen. Combinatorial characterization of pseudometrics. *Acta Math. Hungar.*, 161(1):257–291, 2020.
<https://doi.org/10.1007/s10474-020-01020-x>
- [20] O. Dovgoshey and E. Petrov. Weak similarities of metric and semimetric spaces. *Acta Math. Hungar.*, 141(4):301–319, 2013. <https://doi.org/10.1007/s10474-013-0358-0>
- [21] O. Dovgoshey and E. Petrov. From isomorphic rooted trees to isometric ultrametric spaces. *p-adic Numbers Ultrametr. Anal. Appl.*, 10(4):287–298, 2018.
<https://doi.org/10.1134/S2070046618040052>
- [22] O. Dovgoshey and E. Petrov. Properties and morphisms of finite ultrametric spaces and their representing trees. *p-adic Numbers Ultrametr. Anal. Appl.*, 11(1):1–20, 2019.
<https://doi.org/10.1134/S2070046619010011>
- [23] O. Dovgoshey and E. Petrov. On some extremal properties of finite ultrametric spaces. *p-adic Numbers Ultrametr. Anal. Appl.*, 12(1):1–11, 2020.
<https://doi.org/10.1134/S207004662001001X>
- [24] O. Dovgoshey, E. Petrov, and H.-M. Teichert. On spaces extremal for the Gomory-Hu inequality. *p-adic Numbers Ultrametr. Anal. Appl.*, 7(2):133–142, 2015.
<https://doi.org/10.1134/S2070046615020053>
- [25] O. Dovgoshey, E. Petrov, and H.-M. Teichert. How rigid the finite ultrametric spaces can be? *Fixed Point Theory Appl.*, 19(2):1083–1102, 2017.
<https://doi.org/10.1007/s11784-016-0329-5>
- [26] O. Dovgoshey and V. Shcherbak. The range of ultrametrics, compactness, and separability. *Topology Appl.*, 305(1):107899, 2022.
<https://doi.org/10.1016/j.topol.2021.107899>

- [27] M. Fiedler. Ultrametric sets in Euclidean point spaces. *Electronic Journal of Linear Algebra*, 3:23–30, 1998. <https://doi.org/10.13001/1081-3810.1012>
- [28] F. Q. Gouvêa. *p-adic Numbers. An Introduction*. Springer-Verlag, Berlin, Heidelberg, 1993. <https://doi.org/10.1007/978-3-662-22278-2>
- [29] A. De Gregorio, U. Fugacci, F. Memoli, and F. Vaccarino. On the notion of weak isometry for finite metric spaces. *arXiv:2005.03109v1*, pages 1-24, 2020.
- [30] J. de Groot. Non-Archimedean metrics in topology. *Proc. Amer. Math. Soc.*, 7(5):948–953, 1956. <https://doi.org/10.1090/S0002-9939-1956-0080905-8>
- [31] J. de Groot. Some special metrics in general topology. *Colloq. Math.*, 6:283–286, 1958. <https://doi.org/10.4064/cm-6-1-283-286>
- [32] V. Gurvich and M. Vyalyi. Characterizing (quasi-)ultrametric finite spaces in terms of (directed) graphs. *Discrete Appl. Math.*, 160(12):1742–1756, 2012. <https://doi.org/10.1016/j.dam.2012.03.034>
- [33] J. E. Holly. Pictures of ultrametric spaces, the p-adic numbers, and valued fields. *Amer. Math. Monthly*, 108(8):721–728, 2001. <https://doi.org/10.1080/00029890.2001.11919803>
- [34] B. Hughes. Trees and ultrametric spaces: a categorical equivalence. *Adv. Math.*, 189(1):148–191, 2004. <https://doi.org/10.1016/j.aim.2003.11.008>
- [35] B. Hughes. Trees, ultrametrics, and noncommutative geometry. *Pure Appl. Math. Q.*, 8(1):221–312, 2012. <https://doi.org/10.4310/PAMQ.2012.v8.n1.a11>
- [36] J. Kąkol and W. Śliwa. Descriptive topology in non-Archimedean function spaces $C_p(X, K)$. Part I. *Bull. Lond. Math. Soc.*, 44(5):899–912, 2012. <https://doi.org/10.1112/blms/bds020>
- [37] A. J. Lemin. The category of ultrametric spaces is isomorphic to the category of complete, atomic, tree-like, real graduated lattices **LAT**^{*}. *Algebra Universalis*, 50(1):35–49, 2003. <https://doi.org/10.1007/s0012-003-1806-4>
- [38] H. M. Mulder. *n*-Cubes and median graphs. *Journal of Graph Theory*, 4(1):107–110, 1980. <https://doi.org/10.1002/jgt.3190040112>
- [39] E. Petrov. Weak similarities of finite ultrametric and semimetric spaces. *p-adic Numbers Ultrametr. Anal. Appl.*, 10(2):108–117, 2018. <https://doi.org/10.1134/S2070046618020048>
- [40] E. Petrov and A. Dovgoshey. On the Gomory-Hu inequality. *J. Math. Sci.*, 198(4):392–411, 2014. Translation from Ukr. Mat. Visn. 10(4):469–496, 2013. <https://doi.org/10.1007/s10958-014-1798-y>
- [41] W. H. Schikhof. *Ultrametric Calculus. An Introduction to p-Adic Analysis*. Cambridge University Press, 1985. <https://doi.org/10.1017/CBO9780511623844>

- [42] J. Wang, L. Lu, M. Randić, and G. Li. Graph energy based on the eccentricity matrix. *Discrete Mathematics*, 342(9):2636–2646, 2019.
<https://doi.org/10.1016/j.disc.2019.05.033>