

# P-Adic Study in Linear 2-Normed Spaces

*Mehmet Açıkgöz*

*University of Gaziantep, Faculty of Science and Arts,*

*Department of Mathematics, 27310 Gaziantep, Turkey*

*acikgoz@gantep.edu.tr*

## Abstract

We shall study  $p$ -adic analysis in linear 2-normed spaces and give some results in this sense.

## References

- [1] Bachman, G., Introduction to  $p$ -adic numbers and valuation theory, Academic press, 1964.
- [2] Bachman, G., Narici, L., Functional Analysis, Academic Press, New York and London.
- [3] Baker, A. J., An introduction to  $p$ -adic numbers and  $p$ -adic analysis, URL: <http://www.maths.gla.ac.uk/~ajb>.
- [4] Cho, Y., Lin, P., Kim, S.S., Misiak, A., Theory of 2-Inner Product Spaces, Nova Science Publishers, 2001.
- [5] Dragovich, B.,  $p$ -adic approach to the genetic code and genome, Institute of Physics, Belgrade, Serbia, TAG, 20-24 Oct 2008, Annecy.
- [6] Freese, R., Cho, Y., Geometry of Linear 2-Normed Spaces, Nova Science Publishers, 2001.
- [7] Gouvea, F. Q.,  $P$ -adic Numbers: An introductory survey. Berlin: Springer-Verlag.
- [8] Gouvea, F. Q.,  $P$ -adic: An introduction, universitext, Springer-Verlag, 1993.
- [9] Gahler, S., Linear 2-normerte Raume, Math.Nachr, 28 (1965), 1-45.
- [10] Hensel, K., Theorie der Algebraischen Zahlen, Teubner, Leipzig, 1908.
- [11] Katok, S., Real and  $p$ -adic analysis course notes for math 497C Mass program, Fall 2000 Revised, The Pennsylvania state university, University Park, PA 16802, U.S.A. November 2001.
- [12] Koblitz, N.,  $P$ -adic Numbers,  $p$ -adic analysis, and zeta-Functions, 2nd ed. New York: Springer-Verlag, 1984.
- [13] Kurt, M., Introduction to  $p$ -adic numbers and their functions, 2nd ed. Cambridge, England: Cambridge University Press, 1981.
- [14] Lewandowska, Z., Generalized 2-normed spaces, Stuspskie Prace Matematyczno-Fizyczne 1(2001),33-40.
- [15] Lewandowska, Z., Linear operators on generalized 2-normed spaces, Bull. Math. Soc. Sci. Math. Roumanie (N.S.) 42(90)(1999), no.4,353-368.
- [16] Lewandowska, Z., On 2-normed sets, Glasnik Mat. Ser.III 38(58) (2003), no.1, 99-110.
- [17] Mahler, K., Introduction to  $P$ -adic numbers and their functions, 2nd ed. Cambridge, England: Cambridge University Press, 1981.
- [18] Robert, A. M., A course in  $p$ -adic analysis, Graduate texts in mathematics, vol. 198, (2000).
- [19] Vladimirov, V. S., Volovich, I. V., Zelenov, E. I.,  $p$ -adic analysis and mathematical physics, World scientific, Singapore, 1994.
- [20] White, A., 2-Banach spaces, Math Nachr.42(1969), 43-60.

---

2000 Mathematics Subject Classification.46A15, 41A65, 11B68, 11S80.

Key words and phrases.2-normed spaces,  $p$ -adic numbers,  $p$ -adic norm,  $p$ -adic 2-norm.