

## Marian Văjăitu

### *List of publications*

- [1] Graham's Conjecture under Riemann Hypothesis, *J. Number Theory*, vol.31, No.1, 1989, 80–87. (With C. Cobeli and A. Zaharescu.) MR0978101 (90c:11064).
- [2] *Doctoral thesis*, Estimations of the ideal generated by the values of a polynomial over a Dedekind ring, 1994.
- [3] The ideal generated by the values of a polynomial over a Dedekind ring, *Rev. Roumaine math. pures appl.*, 42(1997), 1–2, 155–161. MR1650032 (99m:13037).
- [4] An inequality involving the degree of an algebraic set, *Rev. Roumaine math. pures appl.*, 43(1998), 3–4, 451–455. MR1845541 (2002e:13039).
- [5] A finiteness theorem for a class of exponential congruences, *Proc. of the American Math. Soc.*, 127(1999), no.8, 2225–2232. (With A. Zaharescu.) MR1486757 (99j:11003).
- [6] The sequence  $n! \pmod{p}$ , *Journal of the Ramanujan Math. Soc.*, 15(2000), no.2, 135–154. (With C. Cobeli and A. Zaharescu.) MR1754715 (2001g:11153).
- [7] Average estimates for the number of tuples of inverses  $\pmod{p}$  in short intervals, *Bull. Math. Soc. Sc. Math. Roumanie*, Thome 43(91), no.2, 2000, 155–167. (With C. Cobeli and A. Zaharescu.) MR1881326 (2002k:11168).
- [8] Uniform distributions in  $p$ -adic fields. An Erdos–Túran inequality, *Buletin Stiintific–Univ. Pitesti, Seria Matematica si Informatica*, Nr.5(2000), 1–7. (With A. Zaharescu.)
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- [10] Exponential sums and their role in number theory (I), *Rev. Roumaine* 45, nr.6(2000), 1031–1045. (With A. Zaharescu.) MR1886536 (2002m:11076).
- [11] An Erdos–Túran inequality in  $p$ -adic fields, *Math. Reports*, vol.2(52), no.2(2000), 243–252. (With A. Zaharescu.) MR1890979 (2003a:11093).

- [12] Integer points unusually close to elliptic curves, *Math. Portugaliae*, vol.58, Fasc.2(2001), 211–218. (With A. Zaharescu.) MR1836263 (2002e:11047).
- [13] Equidistribution of rational functions of primes  $(\bmod q)$ , *Journal of the Ramanujan Math. Soc.*, vol.16, no.1(2001), 63–73. (With C. Cobeli and A. Zaharescu.) MR1824884 (2002b:11102).
- [14] Integer points near hyperelliptic curves, *C.R.Math.Rep. Acad.Sci. Canada*, vol.23(2001), 84–90. (With A. Zaharescu.) MR1852803 (2002e:11085).
- [15]  $L$ –functions associated to Galois orbits in  $\mathbb{C}_p$ , *Math. Reports*, vol.3(53), nr.1(2001), 83–89. (With A. Zaharescu.) MR1887188 (2003d:11175).
- [16] Groups of isometries on ultrametric spaces, *Bull. Math. Soc. Sc. Math. Roumanie*, Thome 44(92), no.2(2001), 183–191. (With A. Zaharescu.) MR2015104 (2004i:20006).
- [17] The change of space problem for metric locally constant functions, *Buletin Stiintific-Univ. Pitesti, Seria Matematica si Informatica*, Nr.7(2001), 179–183. (With A. Zaharescu.)
- [18] Galois groups with metric constraints, *Bull. Math. Sci. Roumaine*, vol.44(92), no.3(2001), 211–219. (With A. Zaharescu.) MR2013339 (2004g:11105).
- [19] Uniform distribution of polynomial sequences in  $p$ –adic fields, *Buletin Stiintific-Univ. Pitesti, Seria Matematica si Informatica*, no.9(2003), 345–348. (With A. Zaharescu.)
- [20] Exponential sums and their role in number theory (II), *Rev. Roumaine*, 47(2002), 135–148. (With A. Zaharescu.) MR1978194 (2004e:11084).
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- [24] Chains of metric invariants over  $p$ -adic fields, *Acta Arithmetica*, 103, 1(2002), 27–40. (With A. Popescu, N. Popescu and A. Zaharescu.) MR1904892 (2003g:11138).
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- [32] Distinct gaps between fractional parts of sequences, *Proc. A.M.S.*, vol.130, no.12(2002), 3447–3452. (With A. Zaharescu.) MR1918819 (2003d:11112).
- [33] Distribution of gaps between the inverses  $(\bmod q)$ , *Proc. Edinburgh Math. Soc.*, 46(2003), 185–203. (With C. Cobeli and A. Zaharescu.) MR1961820 (2004a:11105).
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- [40] Primitive arcs on elliptic curves, *Revue Roumaine*, **50**(2005), 1, 31–38. (With G. Groza and A. Zaharescu.) MR2155987.
- [41] Transformation formulas for  $L$ –functions associated with Galois orbits in  $\mathbb{C}_p$ , *Revue Roumaine*, **50**(2005), 1, 87–97. (With A. Zaharescu.) MR2155992.
- [42] On Krasner analytic functions and the  $p$ –adic Mellin transform, *Math. J. Ibaraki Univ.*, 37(2005), 23–33. (With A. Zaharescu.) MR2207667.
- [43] On the distance between orbits under a group of isometries on a metric space. *Kumamoto J. Math.*, 19(2006), 1–13. (With A. Zaharescu.) MR2211628.
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- [47] Substitution formulas for a class of unbounded distributions. *Rev. Roumaine Math. Pures Appl.*, 51(2006), no. 4, 513–526. (With A. Zaharescu.) MR2275065.
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- [51] Metric properties of the degree function over a  $p$ -adic field. *Rev. Roumaine Math. Pures Appl.*, 52(2007), no. 1, 111-119. (With A. Zaharescu.) MR2341611.
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- [70] Continuous automorphisms of transcendental closed subfields of  $\mathbb{C}_p$ , *Monatsh. Math.*, (2016), 181:527-535. (With Victor Alexandru and Alexandru Zaharescu.)
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- [74] On the zeros and singularities of the trace functions, *Comm. Algebra*, 49 (2021), no. 3, 967–978. (With Victor Alexandru and Alexandru Zaharescu.)
- [75] On Lebesgue decomposition of  $p$ -adic distributions. With an appendix by Victor Alexandru. *Publ. Math. Debrecen*, 98 (2021), no. 1-2, 115–127.
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- [78] Galois equivariant functions on Galois orbits in large  $p$ -adic fields. *Rend. Sem. Mat. Univ. Padova* 151 (2024), 63–75. (With Victor Alexandru.)
- [79] Hausdorff dimension and Galois orbits, submitted for publication. (With V. Alexandru.)
- [80] On Galois equivariant integral representations in the field of  $p$ -adic complex numbers, submitted for publication. (With C.C. Nițu.)

### *Books*

- [81] Non-Archimedean Integration and Applications, *The Publishing House of the Romanian Academy*, 2007, ISBN(13) 978-973-27-1466-9. (With A. Zaharescu.)

### *Papers in progress*

- [82] Hausdorff dimension and chains of metric invariants over Tate fields. (With V. Alexandru.)
- [83] Limiting distribution of fundamental sequences associated with Galois orbits in  $\mathbb{C}_p$ .
- [84] On integral representations in Tate fields.
- [85] On the  $p$ -adic Mittag-Leffler operator.

- [86] Distributions on algebraic varieties over local fields. (With Alexandru Zaharescu.)
- [87] Connections between transfers of trace series and  $p$ -adic distributions. (With V. Alexandru and A. Zaharescu.)
- [88] On  $p$ -adic uniform density. (With Alexandru Zaharescu.)
- [89] Spacing between fractional parts of sequences of  $p$ -adic numbers. (With Alexandru Zaharescu.)

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