



INSTITUTUL DE MATEMATICA
"SIMION STOILOW"
ACADEMIA ROMANA
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Concurs pentru ocuparea postului de **C.S. I**
Disciplinele:
Domeniul **MATEMATICA**
de la Catedra/Departamentul de **Algebra - Teoria Numerelor**
post publicat in ziarul **Romania Libera** nr. 4837 din 03.02.2006, p. 17

LISTA DE LUCRARI

Candidat: **Vajaitu M. Marian - Dr.** / din 1994, CSII / din 2001.
(NUME, initiala si prenume) (anul) (Titlul didactic/echiv.) (anul)

1^o Teza(ele) de doctorat

T1. *Estimari ale idealului generat de valorile unui polinom peste un inel Dedekind*, Institutul de Matematica al Academiei Romane, 1994.

2^o Carti publicate (C1, C2 etc.), indrumare publicate (I 1, 12 etc.), capitole publicate in volume colective, capitole teoretice redactate, sisteme de laborator functionale etc. (D1, D2 etc.), dupa caz, prin care se aduc contributi la asigurarea si perfectionarea activitatilor didactice/profesionale in raport cu natura criteriului de evaluare TC2

C1. Non Archimedean Integration and applications, **M. Vajaitu**, A. Zaharescu, 2006, submisa.

C2. Trace functions and Galois invariant p-adic measures, **M. Vajaitu**, A. Zaharescu, Publicaciones Mathematiques, Spain, 2006.

3^o Articole / studii publicate in reviste de specialitate recunoscute (R1, R2 etc.), articole/studii publicate in volumele unor manifestari stiintifice internationale recunoscute (Vi1, Vi2 etc.), brevete de inventie (B12, B2 etc.), creatii artistice prezentate la manifestari stiintifice recunoscute (A1, A2 etc.), precum si, dupa caz, alte lucrari similare - articole/studii publicate in volumele unor manifestari stiintifice nationale, lucrari prezentate la diferite seminarii/expozitii etc. (E1, E2 etc.), dupa caz, prin care se aduc contributi la dezvoltarea *domeniului* in raport cu natura criteriului de evaluare TC3

R0. **M. Vajaitu** and A. Zaharescu, *On the distance between orbits under a group of isometries on a metric space*, Kumamoto Journal of Mathematics, 2006, to appear.

R1. E. Alkan, A.H. Ledoan, **M. Vajaitu** and A. Zaharescu, *Discrepancy of fractions with divisibility constraints*, Monatsh. Math., 2006, to appear.

R2. E. Alkan, J. Sneed, **M. Vajaitu** and A. Zaharescu, *Wolstenholme matrices*, Math. Reports, 8(58), 1(2006).



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- R3.** E. Alkan, A.H. Ledoan, **M. Vajaitu** and A. Zaharescu, *On the index of fractions with square-free denominators in arithmetic progressions*, The Ramanujan Journal, 2006, to appear.
- R4.** E. Alkan, A.H. Ledoan, **M. Vajaitu** and A. Zaharescu, *Discrepancy of sets of fractions with congruence constraints*, Revue Roumaine, vol 51(L1), no. 3 (2006).
- R5.** N. Popescu, **M. Vajaitu** and A. Zaharescu, *On the existence of trace for elements of C_p* , Algebras and Representation Theory, 2006, to appear.
- R6.** **M. Vajaitu**, A. Zaharescu, *On Krasner analytic functions and the p -adic Mellin transform*, Math. Journal of Ibaraki Univ., 2006, to appear.
- R7.** G. Groza, **M. Vajaitu**, A. Zaharescu, *Primitive arcs on elliptic curves*, Revue Roumaine, 50(2005), 1, 31--38.
- R8.** **M. Vajaitu**, A. Zaharescu, *Transformation formulas for L- functions associated with Galois orbits in C_p* , Revue Roumaine, 50 (2005), 1, 87--97.
- R9.** **M. Vajaitu**, A. Zaharescu, *Regularization on ordered sheaves*, Revue Roumaine Math. Pures Appl., 49(2004), 3, 299--305.
- R10.** C. Cobeli, L. Panaitopol, **M. Vajaitu** and A. Zaharescu, *Some asymptotic formulas involving primes in arithmetic progression*, Commentarii Math. Univ. St. Pauli, Japan, Vol. 53, No. 1(2004), 23--35.
- R11.** M. Cavachi, **M. Vajaitu** and A. Zaharescu, *An irreducibility criterion for polynomials in several variables*, Acta Math. et Informatica Univ. Ostraviensis, 12(2004), 13-18.
- R12.** **M. Vajaitu** and A. Zaharescu, *Nonarchimedean valuation on R and C* , Math. Reports, 5(55), 3(2003), 263--269.
- R13.** C. Cobeli, **M. Vajaitu** and A. Zaharescu, *Distribution of gaps between the inverses $\backslash p \bmod q$* , Proc. Edinburgh Math. Soc., 46(2003), 185--203.
- R14.** **M. Vajaitu** and A. Zaharescu, *Sequences of values of power series over p -adic fields*, Revue Roumaine, 48(2003), 2, 211--216
- R15.** **M. Vajaitu** and A. Zaharescu, *Nonarchimedean valuation on R and C* , Math. Reports, 5(55), 3(2003), 263--269.
- R16.** **M. Vajaitu** and A. Zaharescu, *On the unicity of immediate maximal extensions of valued fields*, Math. Journal of Ibaraki Univ., vol.35(2003), 29--33.
- R17.** **M. Vajaitu** and A. Zaharescu, *Uniform distribution of polynomial sequences in p -adic fields*, Buletin Stiintific--Univ. Pitesti, Seria Matematica si Informatica, no.9(2003), 345--348.
- R18.** **M. Vajaitu** and A. Zaharescu, *Exponential sums and their role in number theory (II)*, Rev. Roumaine 47(2002), 135--148.
- R19.** F.P. Boca, **M. Vajaitu** and A. Zaharescu, *Integer points close to algebraic curves*, Journal of the L.M.S., vol.65(2002), no.2, 10--26.
- R20.** C. Cobeli, **M. Vajaitu** and A. Zaharescu, *On the set $ax+bg^x \backslash p \bmod p$* , Math. Portugaliae, vol.59, Fasc.2(2002), 195--203.
- R21.** **M. Vajaitu** and A. Zaharescu, *Differences between powers of a primitive root*, Internat. Journal Math. Sci., vol.29, no.6(2002), 325--331.
- R22.** A. Popescu, N. Popescu, **M. Vajaitu** and A. Zaharescu, *Chains of metric invariants over p -adic fields*, Acta Arithmetica, 103, 1(2002), 27--40.
- R23.** C. Cobeli, G. Groza, **M. Vajaitu** and A. Zaharescu, *Generalization of a theorem of Steinhaus*, Colloq. Math., vol.92(2002), no. 1--2, 257--266
- R24.** **M. Vajaitu** and A. Zaharescu, *Distribution of values of rational maps on the F_p - points on an affine curve*, Monatshefte fur Mathematik, 136(2002), 81--86.
- R25.** **M. Vajaitu** and A. Zaharescu, *Character sums and pair correlations*, Demonstratio Math., vol.35, no.2(2002), 225--232.



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- R26. C. Cobeli, **M. Vajaitu** and A. Zaharescu, *A class of algebraic--exponential congruences modulo p* , Acta Math. Univ. Comenianae, 71(2002), no.1, 113—117.
- R27. M. Cavachi, **M. Vajaitu** and A. Zaharescu, *A class of irreducible polynomials*, Journal of the Ramanujan Math. Soc. vol.17(2002), no.3, 161—172.
- R28. C. Cobeli, **M. Vajaitu** and A. Zaharescu, *Polynomial--exponential equations modulo p* , Buletin Stiintific-Univ. Pitesti, Seria Matematica si Informatica, Nr.8(2002), 183--188.
- R29. **M. Vajaitu** and A. Zaharescu, *Metric locally constant functions*, Acta et Commentationes Universitatis Tartuensis de Mathematica, vol.6(2002), 29--36.
- R30. **M. Vajaitu** and A. Zaharescu, *Distinct gaps between fractional parts of sequences*, Proc. A.M.S., vol.130, no.12(2002), 3447--3452.
- R31. **M. Vajaitu** and A. Zaharescu, *Integer points unusually close to elliptic curves*, Math. Portugaliae vol.58, Fasc.2(2001), 211--218.
- R32. C. Cobeli, **M. Vajaitu** and A. Zaharescu, *Equidistribution of rational functions of primes $\pmod q$* , Journal of the Ramanujan Math. Soc. vol.16, no.1(2001), 63--73.
- R33. **M. Vajaitu** and A. Zaharescu, *Integer points near hyperelliptic curves*, C.R. Math. Rep.Acad.Sci. Canada, vol. 23(2001), 84—90.
- R34. **M. Vajaitu** and A. Zaharescu, *L- functions associated to Galois orbits in C_p* , Math. Reports, vol.3(53), nr.1(2001), 83--89
- R35. **M. Vajaitu** and A. Zaharescu, *Groups of isometries on ultrametric spaces*, Bull. Math. Soc.Sc. Math. Roumanie, Thome 44(92), no.2(2001), 183--191.
- R36. **M. Vajaitu** and A. Zaharescu, *The change of space problem for metric locally constant functions*, Buletin Stiintific--Univ. Pitesti, Seria Matematica si Informatica, Nr.7(2001), 179--183.
- R37. **M. Vajaitu** and A. Zaharescu, *Galois groups with metric constraints*, Bull. Math. Sci. Roumaine, vol.44(92), no.3(2001), 211--219
- R38. C. Cobeli, **M. Vajaitu** and A. Zaharescu, *The sequence $n! \pmod p$* , Journal of the Ramanujan Math. Soc., 15(2000), no.2, 135--154.
- R39. C. Cobeli, **M. Vajaitu** and A. Zaharescu, *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.
- R40. **M. Vajaitu** and A. Zaharescu, *Uniform distributions in p - adic fields. An Erdos--Turan inequality*, Buletin Stiintific--Univ. Pitesti, Seria Matematica si Informatica, Nr.5(2000), 1--7.
- R41. **M. Vajaitu** and A. Zaharescu, *The analytic continuation problem for p - adic L- functions*, Math. Reports, vol.2(52), no.3(2000), 379--389.
- R42. **M. Vajaitu** and A. Zaharescu, *Exponential sums and their role in number theory (I)*, Rev. Roumaine 45, nr.6(2000), 1031--1045.
- R43. **M. Vajaitu** and A. Zaharescu, *An Erdos-Turan inequality in p - adic fields*, Math. Reports, vol.2(52), no.2(2000), 243—252.
- R44. **M. Vajaitu** and A. Zaharescu, *A finiteness theorem for a class of exponential congruences*, Proc. of the American Math. Soc., 127(1999), no.8, 2225--2232.
- R45. **M. Vajaitu**, *An inequality involving the degree of an algebraic set*, Rev. Roumaine math. pures appl., 43(1998), 3--4, 451--455.
- R46. **M. Vajaitu**, *The ideal generated by the values of a polynomial over a Dedekind ring*, Rev. Roumaine math. pures appl., 42(1997), 1--2, 155--161.
- R47. C. Cobeli, **M. Vajaitu** and A. Zaharescu, *Graham's Conjecture under Riemann Hypothesis*, J. Number Theory, vol.31, No.1, 1989, 80--87.



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4^o Proiecte de cercetare-dezvoltare (P1, P2 etc.) pe baza de contract/grant, precum si alte lucrari de cercetare-dezvoltare (F1, F2 etc.), dupa caz, prin care se aduc contributiile la dezvoltarea mediului educational/cultural/economic/social etc. in raport cu natura criteriului de evaluare TC4

P1. EURROMMAT, Grant international, 2001-2004, membru.

P2. ANSTI-GRANT 6189/2000-2002, director de grant.

P3. CERES 4-147/2004, membru.

P4. CERES 153/11.2001, director de grant.

P5. CERES 3-28/2003-2005, membru.

P6. GRANT CEEX 05-D11-11/2005, membru.

Nota

- (1) Fiecare lucrare este prezentata, in limba in care a fost publicata/expusa, corespunzator structurii "I, II, III, IV, V, VI", unde: I este indicativul (T1, T2 etc.; C1, C2 etc. ...), care se scrie "bold" la lucrarile realizate dupa acordarea ultimului titlu didactic/grad profesional (**C1, I 1** etc., dupa caz); II - autorii in ordinea din publicatie, cu scriere "bold" a **candidatului**; III - *titlul* scris "italic"; IV - editura sau revista sau manifestarea si/sau alte elemente de localizare, dupa caz; V - intervalul de pagini din publicatie, respectiv, pp...-....., numarul total de pagini, respectiv, pg., sau alte date similare, dupa caz; VI - anul sau perioada de realizare, dupa caz.
- (2) In cadrul fiecarui grup de lucrari (C1, C2 etc.; I 1, I 2 etc.;), lucrarile sunt in ordine invers cronologica.

Candidat,

Vajaitu Marian