

Scientific Publications

Nicolae Ciprian Bonciocat

1. *Irreducibility criteria for the sum of two relatively prime multivariate polynomials*, **Results Math.** **74:65** (2019), <https://doi.org/10.1007/s00025-019-0991-1> (with A.I. Bonciocat)
2. *Irreducibility criteria for compositions of multivariate polynomials*, **Acta Math. Hungar.** 156 (2018), no. 1, 172–181
3. *Irreducibility criteria for compositions of polynomials with integer coefficients*, **Monatsh. Math.** 182 (2017), no. 3, 499–512 (with Y. Bugeaud, M. Cipu and M. Mignotte)
4. *An irreducibility criterion for the sum of two relatively prime polynomials*, **Funct. Approx. Comment. Math.** 54 (2016), no. 2, 163–171.
5. *Irreducibility criteria for sums of two relatively prime multivariate polynomials*, **Publ. Math. Debrecen** 87 (2015), no. 3-4, 255–267 (with Y. Bugeaud, M. Cipu and M. Mignotte)
6. *Schönemann-Eisenstein-Dumas-type irreducibility conditions that use arbitrarily many prime numbers*, **Comm. Algebra** 43 (2015), no. 8, 3102–3122.
7. *Irreducibility criteria for compositions and multiplicative convolutions of polynomials with integer coefficients*, **An. Ştiinţ. Univ. "Ovidius" Constanţa Ser. Mat.** 22 (2014), no. 1, 73–84 (with A.I. Bonciocat and M. Cipu)
8. *Congruences characterizing the bicrossproduct of cyclic groups*, **Bull. Math. Soc. Sci. Math. Roumanie (N.S.)** 56(104) (2013), no. 3, 267–279 (with M. Cipu, M.-T. Tsai, A. Zaharescu)
9. *Irreducibility criteria for sums of two relatively prime polynomials*, **Int. J. Number Theory** 9 (2013), no. 6, 1529–1539 (with Y. Bugeaud, M. Cipu and M. Mignotte)
10. *Some Pólya-type irreducibility criteria for multivariate polynomials*, **Comm. Algebra** 40 (2012), no. 10, 3733–3744 (with Y. Bugeaud, M. Cipu and M. Mignotte)
11. *On $D(1)$ -quadruples*, **Publ. Mat.** 56 (2012), no. 2, 279–304 (with M. Cipu and M. Mignotte)
12. *Irreducible multivariate polynomials obtained from polynomials in fewer variables, II*, **Proc. Indian Acad. Sci. Math. Sci.** 121 (2011), no. 2, 133–141 (with A. Zaharescu).
13. *Bounds for the multiplicities of the roots of a complex polynomial*, **Proc. Edinb. Math. Soc** (2) 54 (2011), no. 3, 587–598. (with A.I. Bonciocat and A. Zaharescu).

14. *Bounds for the multiplicities of the irreducible factors of multivariate polynomials*, **Comm. Algebra** 39 (2011), no. 3, 1131–1138 (with A.I. Bonciocat and A. Zaharescu).
15. *On the irreducibility of polynomials that take a prime power value*, **Bull. Math. Soc. Sci. Math. Roumanie (N.S.)** 54 (102) (2011), no. 1, 41–54 (with A.I. Bonciocat and A. Zaharescu).
16. *From prime numbers to irreducible multivariate polynomials*, **An. Ştiinţ. Univ. "Ovidius" Constanţa Ser. Mat.** 19 (2011), no. 2, 37–53.
17. *On an irreducibility criterion of Perron for multivariate polynomials*, **Bull. Math. Soc. Sci. Math. Roumanie** 53 (101) No. 3 (2010), 213–217.
18. *Strips and hyperbolas for zeros of polynomials in terms of their Hermite expansion*, **Math. Inequal. Appl.** 13, no. 2 (2010), 271–288 (with M. Cipu).
19. *On the irreducibility of polynomials with leading coefficient divisible by a large prime power*, **Amer. Math. Monthly** 116 (2009), no. 8, 743–745 (with A.I. Bonciocat).
20. *The irreducibility of polynomials that have one large coefficient and take a prime value*, **Canad. Math. Bull.** 52 (2009), no. 4, 511–520 (with A.I. Bonciocat).
21. *A Capelli type theorem for multiplicative convolutions of polynomials*, **Math. Nachr.** 281 (2008), no. 9, 1240–1253 (with A.I. Bonciocat).
22. *Congruences and Lehmer's problem*, **Int. J. Number Theory** 4 (2008), no. 4, 587–596.
23. *Irreducible multivariate polynomials obtained from polynomials in fewer variables*, **J. Pure Appl. Algebra** 212 (2008), no. 10, 2338–2343 (with A. Zaharescu).
24. *On the number of factors of convolutions of polynomials with integer coefficients*, **Rocky Mountain J. Math.** 38 (2008), no. 2, 417–431 (with A.I. Bonciocat and A. Zaharescu).
25. *Square-free criteria for polynomials using no derivatives*, **Proc. Amer. Math. Soc.** 135 (2007), no. 3, 677–687 (with E. Alkan, A.I. Bonciocat and A. Zaharescu).
26. *Some classes of irreducible polynomials*, **Acta Arith.** 123 (2006), no. 4, 349–360 (with A.I. Bonciocat).
27. *Bounds for the multiplicities of the roots for some classes of complex polynomials*, **Math. Inequal. Appl.** 9 (2006), no. 1, 11–22 (with A.I. Bonciocat and A. Zaharescu).
28. *Some elementary zero-free regions for Dirichlet series and power series*, **Acta Comment. Univ. Tartu. Math.** No. 9 (2005), 33–42 (with A. Zaharescu).
29. *Groups of periods for arbitrary maps on groups*, **Acta Math. Univ. Comenian. (N.S.)** 74 (2005), no. 2, 229–242 (with A. Zaharescu).
30. *Upper bounds for the number of factors for a class of polynomials with rational coefficients*, **Acta Arith.** 113 (2004), no. 2, 175–187.
31. *Congruences for the convolution of divisor sum function*, **Bull. Greek Math. Soc.** 47 (2003), 19–29.

32. *Déformations des groupes par systèmes rigides de facteurs.* (French) [Deformations of groups by rigid factor systems], **Bull. Math. Soc. Sci. Math. Roumanie (N.S.)** 46(94) (2003), no. 1-2, 11–23 (2004).
33. *Groups bicrossed product by automorphisms.* Memorial issue dedicated to Nicolae Radu, **Math. Rep.** 3(53) (2001), no. 2, 145–150.
34. *On the relative quasi-holomorphs of a finite group,* Proceedings of the Annual Meetings of the Faculty of Mathematics (Bucharest, 1999), **An. Univ. Bucuresti Mat. Inform.** 48 (1999), no. 2, 3–7.
35. *Isomorphism criteria for groups semidirect and wreath products,* Proceedings of the Annual Meetings of the Faculty of Mathematics (Bucharest, 1998), **An. Univ. Bucuresti Mat. Inform.** 47 (1998), Special Issue, 59-64 (1999).
36. *The groups semidirect cyclic product,* **An. Univ. Bucuresti Mat.** 47 (1998) no. 1, 17-24.

Papers in preparation

1. *Irreducibility criteria for compositions of multivariate polynomials over arbitrary fields* (with A.I. Bonciocat, Y. Bugeaud, M. Cipu and M. Mignotte) - submitted
2. *Irreducibility criteria for polynomials with a large leading coefficient* (with A.I. Bonciocat, Y. Bugeaud and M. Cipu) - submitted