

# Scientific Publications

Anca Iuliana 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 N.C. Bonciocat)
2. *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 N.C. Bonciocat and M. Cipu)
3. *A rough curvature-dimension condition for metric measure spaces*, **Cent. Eur. J. Math.** 12 (2014), no. 2, 362–380.
4. *Lower Ricci curvature bounds for metric measure spaces*, **Math. Rep. (Bucur.)** 14(64) (2012), no. 3, 253–278.
5. *Bounds for the multiplicities of the roots of a complex polynomial*, **Proc. Edinb. Math. Soc** (2) 54 (2011), no. 3, 587–598. (with N.C. Bonciocat and A. Zaharescu).
6. *Bounds for the multiplicities of the irreducible factors of multivariate polynomials*, **Comm. Algebra** 39 (2011), no. 3, 1131–1138 (with N.C. Bonciocat and A. Zaharescu).
7. *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 N.C. Bonciocat and A. Zaharescu).
8. *On the irreducibility of polynomials with leading coefficient divisible by a large prime power*, **Amer. Math. Monthly** 116 (2009), no. 8, 743–745 (with N.C. Bonciocat).
9. *The irreducibility of polynomials that have one large coefficient and take a prime value*, **Canad. Math. Bull.** 52 (2009), no. 4, 511–520 (with N.C. Bonciocat).
10. *Mass transportation and rough curvature bounds for discrete spaces*, **J. Funct. Anal.** 256 (2009), no. 9, 2944–2966 (with K.-T. Sturm)
11. *A Capelli type theorem for multiplicative convolutions of polynomials*, **Math. Nachr.** 281 (2008), no. 9, 1240–1253 (with N.C. Bonciocat).
12. *On the number of factors of convolutions of polynomials with integer coefficients*, **Rocky Mountain J. Math.** 38 (2008), no. 2, 417–431 (with N.C. Bonciocat and A. Zaharescu).
13. *Square-free criteria for polynomials using no derivatives*, **Proc. Amer. Math. Soc.** 135 (2007), no. 3, 677–687 (with E. Alkan, N.C. Bonciocat and A. Zaharescu).
14. *Some classes of irreducible polynomials*, **Acta Arith.** 123 (2006), no. 4, 349–360 (with N.C. Bonciocat).

15. *Irreducibility results for compositions of polynomials with integer coefficients*, **Monatsh. Math.** 149 (2006), no. 1, 31–41 (with A. Zaharescu)
16. *Bounds for the multiplicities of the roots for some classes of complex polynomials*, **Math. Inequal. Appl.** 9 (2006), no. 1, 11–22 (with N.C. Bonciocat and A. Zaharescu).
17. *Irreducibility results for compositions of polynomials in several variables*, **Proc. Indian Acad. Sci. Math. Sci.** 115 (2005), no. 2, 117126 (with A. Zaharescu)
18. *On Beurling-Deny formula for quasi-regular Dirichlet forms*, **Math. Rep. (Bucur.)** 4(54) (2002), no. 2, 143146 (2003).

### Papers in preparation

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