

Yuri Bilu

Liste de publications / Publication list

Octobre / October 2023

Ouvrage / Books

1. **Yu. Bilu, Y. Bugeaud, M. Mignotte**, *The Problem of Catalan*, Springer, 2014.

Articles dans des revues avec comité de lecture / Articles in refereed journals

2. **Yu. Bilu, S. Gun, S. L. Naik**, On non-Archimedean analogue of Atkin-Serre Question, *Math. Ann.*, published online (2023).
3. **Yu. Bilu, F. Luca, J. Nieuwveld, J. Ouaknine, J. Worrell**, On the p -adic zeros of the Tribonacci sequence, *Math. Comp.*, published online (2023); arXiv:2210.16959.
4. **Yu. Bilu, F. Luca, H. Hong**, Big prime factors in orders of elliptic curves over finite fields, *Publ. Math. Debrecen* **102** (2023), 459–474.
5. **Yu. Bilu, H. Hong, S. Gun**, Uniform explicit Stewart's theorem on prime factors of linear recurrences, *Acta Arith.* **206** (2022), 223–243.
6. **Yu. Bilu, F. Luca, A. Pizarro-Madariaga**, Trinomials, singular moduli and Riffaut's conjecture, *Ann. Sc. Norm. Super. Pisa - Cl. Sci. (5)*, **XXIII** (2022), 2003-2048.
7. **A. Bajolet, Yu. Bilu, B. Matschke**, Computing Integral Points on $X_{ns}^+(p)$, *Algebra Number Th.* **15** (2021), 569-608.
8. **Yu. Bilu, F. Luca**, Binary polynomial power sums vanishing at roots of unity, *Acta Arith.* **198** (2021), 195-217.
9. **Yu. Bilu, B. Faye, H. Zhu**, Separating singular moduli and the primitive element problem, *Quarterly J. Math.* **71** (2020), 1253-1280.
10. **Yu. Bilu, C. A. Gómez, J. C. Gómez, F. Luca**, Elliptic curves over finite fields with Fibonacci numbers of points, *New York J. Math.* **26** (2020), 711-734.
11. **Yu. Bilu, F. Luca**, Trinomials with given roots, *Indag. Math.* **31** (2020), 33–42.
12. **Yu. Bilu, P. Habegger, L. Kühne**, No Singular Modulus Is a Unit, *Int. Math. Research Notices* **2020**, 10005–10041.
13. **Yu. Bilu, L. Kühne**, Linear Equations in Singular Moduli, *Int. Math. Research Notices* **2020**, 7617–7643.
14. **Yu. Bilu, D. Marques, A. Togbé**, Generalized Cullen numbers in linear recurrence sequences, *J. Number Theory* **202** (2019), 412-425.
15. **Yu. Bilu, J.-M. Deshouillers, S. Gun, F. Luca**, Random ordering in modulus of consecutive Hecke eigenvalues of primitive forms, *Compositio Math.* **154** (2018), 2441-2461.
16. **Yu. Bilu, J. Gillibert**, Chevalley-Weil Theorem and Subgroups of Class Groups, *Israel J. Math.* **226** (2018), 927-956.

17. **A. Bérczes, Yu. Bilu, F. Luca**, Diophantine equations with products of consecutive members of binary recurrences, *The Ramanujan J.* **46** (2018), 49-75.
18. **Yu. Bilu**, Counting Number Fields in Fibers (with an appendix by **J. Gillibert**), *Math. Z.* **288** (2018), 541-563.
19. **Yu. Bilu, F. Luca, D. Masser**, Colinear CM Points, *Algebra Number Th.* **11** (2017), 1047-1087.
20. **Yu. Bilu, F. Luca**, Number Fields in Fibers: the Geometrically Abelian Case with Rational Critical Values, *Period. Math. Hungar.* **75** (2017), 315–321.
21. **Yu. Bilu, T. Komatsu, F. Luca, A. Pizarro-Madariaga, P. Stanica**, On a divisibility relation for Lucas sequences, *J. Number Th.* **163** (2016), 1–18.
22. **Yu. Bilu, F. Luca, A. Pizarro-Madariaga**, Rational Products of Singular Moduli, *J. Number Th.* **158** (2016), 397–410.
23. **A. Beshenov, M. Bilu, Yu. Bilu, P. Rath**, Rational points on analytic varieties: results and applications (after Bombieri, Pila, Wilkie, Zannier...), *EMS Surveys Math Sc.* **2** (2015), 109–130.
24. **B. Bartolome, Yu. Bilu, F. Luca**, On the Exponential Local-Global Principle, *Acta Arith.* **159** (2013), 101–111.
25. **Yu. Bilu, A. Borichev**, Remarks on Eisenstein, *J. Austral. Math. Soc.* **94** (2013), 158–180.
26. **Yu. Bilu, M. Strambi, A. Surroca**, Quantitative Chevalley-Weil Theorem for Curves, *Monats. Math.* **171** (2013), 1–32.
27. **Yu. F. Bilu, C. Fuchs, F. Luca, Á. Pintér**, Combinatorial Diophantine equations and a refinement of a theorem on separated variables equations, *Publ. Math. Debrecen*, **82** (2013), 219–254.
28. **Yu. Bilu, P. Parent, M. Rebolledo**, Rational points on $X_0^+(p^r)$, *Ann. Inst. Fourier* **63** (2013), 957–984.
29. **Yu. Bilu, D. Masser, U. Zannier**, An effective “Theorem of André” for CM-points on a plane curve, *Math. Proc. Camb. Phil. Soc.* **154** (2013), 145–152.
30. **Yu. Bilu, P. Parent**, Serre's uniformity problem in the split Cartan case, *Ann. Math. (II)* **173** (2011), 569–584.
31. **Yu. Bilu, M. Illengo**, Effective Siegel's theorem for modular curves, *Bull. London Math. Soc.* **43** (2011), 673–688.
32. **Yu. Bilu, P. Parent**, Runge's method and modular curves, *Int. Math. Research Notices* **2011**, 1997–2027 (electronic).
33. **Yu. F. Bilu, M. Strambi**, Quantitative Riemann existence theorem over a number field, *Acta Arith.* **145** (2010), 319–339.
34. **P. Alvanos, Yu. Bilu, D. Poulakis**, Characterizing algebraic curves with infinitely many integral points, *Int. J. Number Th.* **5** (2009), 585–590.
35. **Yu. Bilu, P. Parent**, Integral j -invariants and Cartan structures for elliptic curves, *C. R. Acad. Sci. Paris S. Math. Ser. I* **346** (2008), 599–602.

36. **Yu. F. Bilu**, Catalan without logarithmic forms (after Bugeaud, Hanrot and Mihăilescu), *J. Th. Nombres Bordeaux* **17** (2005), 69–85.
37. **Yu. F. Bilu, F. Luca**, Divisibility of class numbers: enumerative approach, *J. reine angew. Math.* **578** (2005), 79–91.
38. **Yu. F. Bilu, I. Gaál, K. Győry**, Index form equations in sextic fields: a hard computation, *Acta Arith.* **115** (2004), 85–96.
39. **Yu. F. Bilu, M. Kulkarni, B. Sury**, The Diophantine equation $x(x+1)\cdots(x+(m-1))+r=y^n$, *Acta Arith.* **113** (2004), 303–308.
40. **Yu. F. Bilu, B. Brindza, P. Kirschenhofer, Á. Pintér, R. F. Tichy** (with an appendix by **A. Schinzel**), Diophantine equations and Bernoulli polynomials, *Compositio Math.* **131** (2002), 173–188.
41. **Yu. Bilu**, On Le's and Bugeaud's papers about the equation $ax^2 + b^{2m-1} = 4c^p$, *Monats. Math.* **137** (2002), 1–3.
42. **Yu. Bilu, G. Hanrot, P. Voutier** (with an appendix by **M. Mignotte**), Existence of primitive divisors of Lucas and Lehmer numbers, *J. reine angew. Math.* **539** (2001), 75–122.
43. **Yu. F. Bilu, T. Stoll, R. F. Tichy**, Octahedrons with equally many lattice points, *Period. Math. Hungar.* **40** (2000), 229–238.
44. **Yu. F. Bilu, R. F. Tichy**, The Diophantine equation $f(x) = g(y)$, *Acta Arith.* **95** (2000), 261–288.
45. **Yu. Bilu, Ya. Bugeaud**, Démonstration du théorème de Baker-Feldman via les formes linéaires en deux logarithmes, *J. Th. Nombres Bordeaux* **12** (2000), 13–23.
46. **Yu. Bilu**, Quadratic factors of $f(x) - g(y)$, *Acta Arith.* **90** (1999), 341–355.
47. **Yu. Bilu, G. Hanrot**, Thue equations with composite fields, *Acta Arith.* **88** (1999), 311–326.
48. **Yu. Bilu, V. F. Lev, I. Z. Ruzsa**, Rectification principles in the additive number theory, *Discr. Comput. Geom.* **19** (1998), 343–353.
49. **Yu. Bilu, G. Hanrot**, Solving superelliptic Diophantine equations by Baker's method, *Compositio Math.* **112** (1998), 273–312.
50. **Yu. Bilu**, The $(\alpha + 2\beta)$ -inequality on the torus, *J. London Math. Soc.* **57** (1998), 513–528.
51. **Yu. Bilu**, Sum-free sets and related sets, *Combinatorica* **18** (1998), 449–459.
52. **Yu. Bilu**, Limit distribution of small points on algebraic tori, *Duke Math. J.* **89** (1997), 465–476.
53. **Yu. Bilu**, Addition of sets of integers of positive density, *J. Number Th.* **64** (1997), 233–275.
54. **Yu. Bilu**, Quantitative Siegel's theorem for Galois coverings, *Compositio Math.* **106** (1997), 125–158.
55. **Yu. Bilu**, A note on universal Hilbert sets, *J. reine angew. Math.* **479** (1996), 195–203.
56. **Yu. Bilu, G. Hanrot**, Solving Thue equations of high degree, *J. Number Th.* **60** (1996), 373–392.

57. **D. Berend, Yu. Bilu**, Polynomials with roots modulo every integer, *Proc. Amer. Math. Soc.* **124** (1996), 1663–1671.
58. **Yu. Bilu**, Effective analysis of integral points on algebraic curves, *Israel J. Math.* **90** (1995), 235–252.
59. **Yu. Bilu** (Belotserkovski), Diophantine equations and units of algebraic function fields (Russian), *Vestsi Akad. Navuk BSSR, Ser. Fiz.-Math. Navuk*, 1991, no. 6, 114.
60. **Yu. Bilu** (Belotserkovski), Effective analysis of a new class of Diophantine equations (Russian), *Vestsi Akad. Navuk BSSR, Ser. Fiz.-Math. Navuk*, 1988, no. 6, 34–39, 125.
61. **Yu. Bilu** (Belotserkovski), Effective analysis of a class of Diophantine equations (Russian), *Vestsi Akad. Navuk BSSR, Ser. Fiz.-Math. Navuk*, 1988, no. 3, 111–115.
62. **Yu. Bilu** (Belotserkovski), Uniform distribution of algebraic numbers near the unit circle (Russian), *Vestsi Akad. Navuk BSSR, Ser. Fiz.-Math. Navuk*, 1988, no. 1, 49–52, 124.

Articles dans des actes de colloques avec comité de lecture / Articles in refereed conference proceedings

63. **Yu. Bilu**, The Chevalley-Bass Theorem, *Essays in Analytic Number Theory In Honor of Helmut Maier's 70th Birthday*, to appear; arXiv:2305.05041 (2023).
64. **Yu. Bilu, F. Luca, J. Nieuwveld, J. Ouaknine, D. Purser, J. Worrell**, Skolem Meets Schanuel, *47th International Symposium on Mathematical Foundations of Computer Science*, paper No. 20, 15 pp., LIPIcs. Leibniz Int. Proc. Inform., 241, Schloss Dagstuhl. Leibniz-Zent. Inform., Wadern, 2022; arXiv:2204.13417 (2022).
65. **Yu. Bilu, F. Luca**, Diversity in Parametric Families of Number Fields, in C. Elsholtz, P. Grabner (eds), *Number Theory - Diophantine Problems, Uniform Distribution and Applications: Festschrift in Honour of Robert F. Tichy's 60th Birthday*, 169–191, Springer, 2017.
66. **B. Allombert, Yu. Bilu, A. Pizarro-Madariaga**, CM-Points on Straight Lines, in C. Pomerance, M. Rassias (eds.), *Analytic Number Theory In Honor of Helmut Maier's 60th Birthday*, 1–18, Springer, 2015.
67. **Yu. F. Bilu, D. Masser**, A quick proof of Sprindzhuk's decomposition theorem, in E. Györy, G. Katona, L. Lovász (eds) *More sets, graphs and numbers*, 25–32, Bolyai Soc. Math. Stud. **15**, Springer, Berlin, 2006.
68. **Yu. Bilu**, Baker's method and modular curves, in G. Wüstholz (ed.), *A Panorama of Number Theory or The View from Baker's Garden*, 73–88, Cambridge University Press, 2002.
69. **Yu. Bilu**, Structure of sets with small sumsets, *Astérisque* **258** (1999), 77–108.

Exposés Bourbaki / Bourbaki talks

70. **Yu. F. Bilu**, The Many Faces of the Subspace Theorem (after Adamczewski, Bugeaud, Corvaja, Zannier...), *Séminaire Bourbaki*, Exposé **967**, 59ème année (2006-2007); *Astérisque* **317** (2008), 1–38.
71. **Yu. F. Bilu**, Catalan's conjecture (after Mihăilescu), *Séminaire Bourbaki*, Exposé **909**, 55ème année (2002-2003); *Astérisque* **294** (2004), 1–26.

Articles d'exposition / Expository articles

72. **Yu. Bilu, J. I. Burgos Gil, M. Sombra**, La casa de los números pequeños, *La Gaceta de la RSME* **25** (2022), 557–575.

73. **Yu. F. Bilu**, Diophantine equations with separated variables, *Colloquium De Giorgi* 2006, 1–8, *Colloquia*, 1, Ed. Norm., Pisa, 2006.
74. **Yu. Bilu**, Integral points on Galois covers, *Mat. Contemp.* **14** (1998), 1–11.
75. **Yu. Bilu**, Addition of integer sequences and subsets of real tori, in K. Győry, H. Iwaniec, J. Urbanowicz (eds.), *Number Theory in Progress (Proc. Int. Conf. in Number Theory in Honor of A. Schinzel, Zakopane, 1997)*, W. de Gruyter, 1999; pp. 639–649.

Thèses / Theses

76. **Yu. Bilu**, *Diophantine Analysis and Additive Theory*, Habilitation Thesis, Basel, 2000.
77. **Yu. Bilu**, *Effective Analysis of Integral Points on Algebraic Curves*, Ph. D. Thesis, Beer Sheva, 1993.

Articles soumis et prépublications / Preprints and submitted

78. **Yu. Bilu, S. Gun, E. Tron**, Effective multiplicative independence of 3 singular moduli, submitted; arXiv:2207.05183.

Autres articles, notes de cours, etc. / Other articles, lecture notes, etc.

79. **Yu. F. Bilu, Ch. U. Liebendörfer**, Das "Condorcet Jury Theorem", oder Demokratie mathematisch beleuchtet, *UNI NOVA (Wissenschaftsmagazin Univ. Basel)* **87** (2000), 14–18.
80. **Yu. Bilu**, Solving superelliptic Diophantine equations by the method of Gelfond-Baker, *Mathématiques Stochastiques*, Univ. Bordeaux 2, Preprint **94-09**, Bordeaux, 1994.