

Yuri Bilu

## Liste de publications / Publication list

Avril / April 2017

### 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, F. Luca, D. Masser**, Colinear CM Points, *Algebra Number Th.*, to appear; arXiv:1503.08378 .
3. **Yu. Bilu**, Counting Number Fields in Fibers (with an appendix by **J. Gillibert**), *Math. Z.*, to appear; arXiv:1606.02341 .
4. **Yu. Bilu, F. Luca**, Number Fields in Fibers: the Geometrically Abelian Case with Rational Critical Values, *Period. Math. Hungar.*, to appear; arXiv:1606.09164 .
5. **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.
6. **Yu. Bilu, F. Luca, A. Pizarro-Madariaga**, Rational Products of Singular Moduli, *J. Number Th.* **158** (2016), 397–410.
7. **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.
8. **B. Bartolome, Yu. Bilu, F. Luca**, On the Exponential Local-Global Principle, *Acta Arith.* **159** (2013), 101–111.
9. **Yu. Bilu, A. Borichev**, Remarks on Eisenstein, *J. Austral. Math. Soc* **94** (2013), 158–180.
10. **Yu. Bilu, M. Strambi, A. Surroca**, Quantitative Chevalley-Weil Theorem for Curves, *Monats. Math.* **171** (2013), 1–32.
11. **Yu. F Bilu, C. Fuchs, F. Luca, Á. Pintér**, Diophantine equations involving some classical counting functions, *Publ. Math. Debrecen*, **82** (2013), 219–254.
12. **Yu. Bilu, P. Parent, M. Rebolledo**, Rational points on  $X_0^+(p^r)$ , *Ann. Inst. Fourier* **63** (2013), 957–984.
13. **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.

14. **Yu. Bilu, P. Parent**, Serre's uniformity problem in the split Cartan case, *Ann. Math. (II)* **173** (2011), 569–584.
15. **Yu. Bilu, M. Illengo**, Effective Siegel's theorem for modular curves, *Bull. London Math. Soc.* **43** (2011), 673–688.
16. **Yu. Bilu, P. Parent**, Runge's method and modular curves, *Int. Math. Research Notices* **2011**, 1997–2027 (electronic).
17. **Yu. F. Bilu, M. Strambi**, Quantitative Riemann existence theorem over a number field, *Acta Arith.* **145** (2010), 319–339.
18. **P. Alvanos, Yu. Bilu, D. Poulakis**, Characterizing algebraic curves with infinitely many integral points, *Int. J. Number Th.* **5** (2009), 585–590.
19. **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.
20. **Yu.F. Bilu**, Catalan without logarithmic forms (after Bugeaud, Hanrot and Mihăilescu), *J. Th. Nombres Bordeaux* **17** (2005), 69–85.
21. **Yu.F. Bilu, F. Luca**, Divisibility of class numbers: enumerative approach, *J. reine angew. Math.* **578** (2005), 79–91.
22. **Yu.F. Bilu, I. Gaál, K. Győry**, Index form equations in sextic fields: a hard computation, *Acta Arith.* **115** (2004), 85–96.
23. **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.
24. **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.
25. **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.
26. **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.
27. **Yu.F. Bilu, T. Stoll, R.F. Tichy**, Octahedrons with equally many lattice points, *Period. Math. Hungar.* **40** (2000), 229–238.
28. **Yu.F. Bilu, R.F. Tichy**, The Diophantine equation  $f(x) = g(y)$ , *Acta Arith.* **95** (2000), 261–288.
29. **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.

30. **Yu. Bilu**, Quadratic factors of  $f(x) - g(y)$ , *Acta Arith.* **90** (1999), 341–355.
31. **Yu. Bilu, G. Hanrot**, Thue equations with composite fields, *Acta Arith.* **88** (1999), 311–326.
32. **Yu. Bilu, V.F. Lev, I.Z. Ruzsa**, Rectification principles in the additive number theory, *Discr. Comput. Geom.* **19** (1998), 343–353.
33. **Yu. Bilu, G. Hanrot**, Solving superelliptic Diophantine equations by Baker's method, *Compositio Math.* **112** (1998), 273–312.
34. **Yu. Bilu**, The  $(\alpha + 2\beta)$ -inequality on the torus, *J. London Math. Soc.* **57** (1998), 513–528.
35. **Yu. Bilu**, Sum-free sets and related sets, *Combinatorica* **18** (1998), 449–459.
36. **Yu. Bilu**, Limit distribution of small points on algebraic tori, *Duke Math. J.* **89** (1997), 465–476.
37. **Yu. Bilu**, Addition of sets of integers of positive density, *J. Number Th.* **64** (1997), 233–275.
38. **Yu. Bilu**, Quantitative Siegel's theorem for Galois coverings, *Compositio Math.* **106** (1997), 125–158.
39. **Yu. Bilu**, A note on universal Hilbert sets, *J. reine angew. Math.* **479** (1996), 195–203.
40. **Yu. Bilu, G. Hanrot**, Solving Thue equations of high degree, *J. Number Th.* **60** (1996), 373–392.
41. **D. Berend, Yu. Bilu**, Polynomials with roots modulo every integer, *Proc. Amer. Math. Soc.* **124** (1996), 1663–1671.
42. **Yu. Bilu**, Effective analysis of integral points on algebraic curves, *Israel J. Math.* **90** (1995), 235–252.
43. **Yu. Bilu** (Belotserkovski), Diophantine equations and units of algebraic function fields (Russian), *Vestsi Akad. Navuk BSSR, Ser. Fiz.-Math. Navuk*, 1991, no. 6, 114.
44. **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.
45. **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.
46. **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**

47. **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*, Springer, to appear; arXiv:1607.00904 .
48. **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.
49. **Yu.F. Bilu, D. Masser**, A quick proof of Sprindzhuk's decomposition theorem, in E. Győry, G. Katona, L. Lovász (eds) *More sets, graphs and numbers*, 25–32, Bolyai Soc. Math. Stud. **15**, Springer, Berlin, 2006.
50. **Yu. F. Bilu**, Diophantine equations with separated variables, *Colloquium De Giorgi 2006*, 1–8, Colloquia, 1, Ed. Norm., Pisa, 2006.
51. **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.
52. **Yu. Bilu**, Structure of sets with small sumsets, *Astérisque* **258** (1999), 77–108.
53. **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.
54. **Yu. Bilu**, Integral points on Galois covers, *Mat. Contemp.* **14** (1998), 1–11.

#### **Exposés Bourbaki / Bourbaki talks**

55. **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.
56. **Yu.F. Bilu**, Catalan's conjecture (after Mihăilescu), *Séminaire Bourbaki*, Exposé **909**, 55ème année (2002-2003); *Astérisque* **294** (2004), 1–26.

#### **Thèses / Theses**

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

#### **Articles soumis et prépublications / Preprints and submitted**

59. **Yu. Bilu, J.-M. Deshouillers, S. Gun, F. Luca**, Erratic behavior of Fourier-coefficients of modular forms in short intervals, submitted (2017); arXiv:1701.01915

60. **A. Bérczes, Yu. Bilu, F. Luca**, Diophantine equations with products of consecutive members of binary recurrences, submitted (2016).
61. **Yu. Bilu, J. Gillibert**, Chevalley-Weil Theorem and Subgroups of Class Groups, submitted (2016); arXiv:1606.03128 .
62. **A. Bajolet, Yu. Bilu**, Computing Integral Points on  $X_{ns}^+(p)$  , preprint (2012); arXiv:1212.0665 .

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

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