

Bibliography for Arithmetic Dynamical Systems

Joseph H. Silverman

May 25, 2007

This document lists a wide variety of articles and books in the area of arithmetic dynamics. It also includes some additional references that were needed in *The Arithmetic of Dynamical Systems* (Springer-Verlag GTM 241). Note that the numbering in this document does not match the numbering of references in GTM 241.

References

- [1] L. V. Ahlfors. *Complex Analysis*. McGraw-Hill Book Co., New York, 1978.
- [2] A. V. Aho and N. J. A. Sloane. Some doubly exponential sequences. *Fibonacci Quart.*, 11(4):429–437, 1973.
- [3] W. Aitken, F. Hajir, and C. Maire. Finitely ramified iterated extensions. *IMRN*, 14:855–880, 2005.
- [4] S. Albeverio, M. Gundlach, A. Khrennikov, and K.-O. Lindahl. On the Markovian behavior of p -adic random dynamical systems. *Russ. J. Math. Phys.*, 8(2):135–152, 2001.
- [5] S. Albeverio, B. Tirostsi, A. Y. Khrennikov, and S. de Shmedt. p -adic dynamical systems. *Teoret. Mat. Fiz.*, 114(3):349–365, 1998.
- [6] N. Ali. Stabilité des polynômes. *Acta Arith.*, 119(1):53–63, 2005.
- [7] F. Amoroso and R. Dvornicich. A lower bound for the height in abelian extensions. *J. Number Theory*, 80(2):260–272, 2000.
- [8] F. Amoroso and U. Zannier. A relative Dobrowolski lower bound over abelian extensions. *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)*, 29(3):711–727, 2000.
- [9] V. Anashin. Ergodic transformations in the space of p -adic integers. In *p -adic mathematical physics*, volume 826 of *AIP Conf. Proc.*, pages 3–24. Amer. Inst. Phys., Melville, NY, 2006.
- [10] J.-C. Anglès d’Auriac, J.-M. Maillard, and C. M. Viallet. On the complexity of some birational transformations. *J. Phys. A*, 39(14):3641–3654, 2006.
- [11] T. M. Apostol. *Introduction to Analytic Number Theory*. Springer-Verlag, New York, 1976. Undergraduate Texts in Mathematics.
- [12] J. Arias de Reyna. Dynamical zeta functions and Kummer congruences. *Acta Arith.*, 119(1):39–52, 2005.
- [13] D. K. Arrowsmith and F. Vivaldi. Some p -adic representations of the Smale horseshoe. *Phys. Lett. A*, 176(5):292–294, 1993.
- [14] D. K. Arrowsmith and F. Vivaldi. Geometry of p -adic Siegel discs. *Phys. D*, 71(1-2):222–236, 1994.

- [15] P. Autissier. Hauteur des correspondances de Hecke. *Bull. Soc. Math. France*, 131(3):421–433, 2003.
- [16] P. Autissier. Dynamique des correspondances algébriques et hauteurs. *Int. Math. Res. Not.*, (69):3723–3739, 2004.
- [17] M. Ayad. Périodicité (mod q) des suites elliptiques et points S -entiers sur les courbes elliptiques. *Ann. Inst. Fourier (Grenoble)*, 43(3):585–618, 1993.
- [18] M. Ayad and D. L. McQuillan. Irreducibility of the iterates of a quadratic polynomial over a field. *Acta Arith.*, 93(1):87–97, 2000.
- [19] M. Ayad and D. L. McQuillan. Corrections to: “Irreducibility of the iterates of a quadratic polynomial over a field” [*Acta Arith.* **93** (2000), no. 1, 87–97]. *Acta Arith.*, 99(1):97, 2001.
- [20] I. N. Baker. Fixpoints of polynomials and rational functions. *J. London Math. Soc.*, 39:615–622, 1964.
- [21] M. Baker. A finiteness theorem for canonical heights attached to rational maps over function fields, 2005. [ArXiv:math.NT/0601046](https://arxiv.org/abs/math/0601046).
- [22] M. Baker. A lower bound for average values of dynamical Green’s functions. *Math. Res. Lett.*, 13(2-3):245–257, 2006.
- [23] M. Baker. Uniform structures and Berkovich spaces, 2006. [ArXiv:math.NT/0606252](https://arxiv.org/abs/math/0606252).
- [24] M. Baker and L.-C. Hsia. Canonical heights, transfinite diameters, and polynomial dynamics, 2005.
- [25] M. Baker and S.-i. Ih. Equidistribution of small subvarieties of an abelian variety. *New York J. Math.*, 10:279–285 (electronic), 2004.
- [26] M. Baker, S.-I. Ih, and R. Rumely. A finiteness property of torsion points, 2005. [ArXiv:math.NT/0509485](https://arxiv.org/abs/math/0509485).
- [27] M. Baker and R. Rumely. Analysis and dynamics on the Berkovich projective line, 2004. [ArXiv:math.NT/0407433](https://arxiv.org/abs/math/0407433).
- [28] M. Baker and R. Rumely. Montel’s theorem for the Berkovich projective line and the Berkovich Julia set of a rational map, 2005. Preprint.
- [29] M. Baker and R. Rumely. Equidistribution of small points, rational dynamics, and potential theory. *Ann. Inst. Fourier (Grenoble)*, 56(3):625–688, 2006.
- [30] M. Baker and R. Rumely. Potential theory on the Berkovich projective line, 2006. <http://www.math.gatech.edu/~mbaker/pdf/BerkBook.pdf>, in preparation.
- [31] M. Baker and R. Rumely. Harmonic analysis on metrized graphs. *Canadian J. Math.*, 2007. To appear.
- [32] T. F. Banchoff and M. I. Rosen. Periodic points of Anosov diffeomorphisms. In *Global Analysis (Proc. Sympos. Pure Math., Vol. XIV, Berkeley, Calif., 1968)*, pages 17–21. Amer. Math. Soc., Providence, R.I., 1970.
- [33] A. Baragar. Asymptotic growth of Markoff-Hurwitz numbers. *Compositio Math.*, 94(1):1–18, 1994.
- [34] A. Baragar. Integral solutions of Markoff-Hurwitz equations. *J. Number Theory*, 49(1):27–44, 1994.
- [35] A. Baragar. Rational points on $K3$ surfaces in $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$. *Math. Ann.*, 305(3):541–558, 1996.

- [36] A. Baragar. Rational curves on $K3$ surfaces in $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$. *Proc. Amer. Math. Soc.*, 126(3):637–644, 1998.
- [37] A. Baragar. Canonical vector heights on algebraic $K3$ surfaces with Picard number two. *Canad. Math. Bull.*, 46(4):495–508, 2003.
- [38] A. Baragar. Orbits of curves on certain $K3$ surfaces. *Compositio Math.*, 137(2):115–134, 2003.
- [39] A. Baragar. Canonical vector heights on $K3$ surfaces with Picard number three—an argument for nonexistence. *Math. Comp.*, 73(248):2019–2025 (electronic), 2004.
- [40] A. Baragar and R. van Luijk. $K3$ surfaces with picard number three and canonical heights. *Math. Comp.* To appear.
- [41] W. P. Barth, K. Hulek, C. A. M. Peters, and A. Van de Ven. *Compact complex surfaces*, volume 4 of *Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge. A Series of Modern Surveys in Mathematics*. Springer-Verlag, Berlin, second edition, 2004.
- [42] A. Batra and P. Morton. Algebraic dynamics of polynomial maps on the algebraic closure of a finite field. I. *Rocky Mountain J. Math.*, 24(2):453–481, 1994.
- [43] A. Batra and P. Morton. Algebraic dynamics of polynomial maps on the algebraic closure of a finite field. II. *Rocky Mountain J. Math.*, 24(3):905–932, 1994.
- [44] A. F. Beardon. *Iteration of Rational Functions*, volume 132 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1991. Complex analytic dynamical systems.
- [45] A. Beauville. *Complex Algebraic Surfaces*, volume 34 of *London Mathematical Society Student Texts*. Cambridge University Press, Cambridge, second edition, 1996.
- [46] E. Bedford and K. Kim. On the degree growth of birational mappings in higher dimension. *J. Geom. Anal.*, 14(4):567–596, 2004.
- [47] E. Bedford and K. Kim. Degree growth of matrix inversion: birational maps of symmetric, cyclic matrices, 2005. [ArXiv:math.DS/0512507](https://arxiv.org/abs/math/0512507).
- [48] M. B. Bekka and M. Mayer. *Ergodic Theory and Topological Dynamics of Group Actions on Homogeneous Spaces*, volume 269 of *London Mathematical Society Lecture Note Series*. Cambridge University Press, Cambridge, 2000.
- [49] E. Bekyel. The density of elliptic curves having a global minimal Weierstrass equation. *J. Number Theory*, 109(1):41–58, 2004.
- [50] M. P. Bellon and C.-M. Viallet. Algebraic entropy. *Comm. Math. Phys.*, 204(2):425–437, 1999.
- [51] S. Ben-Menahem. p -adic iterations. Preprint, TAUP 1627–88, Tel-Aviv University, 1988.
- [52] R. L. Benedetto. *Dynamics in one p -adic variable*. In preparation, 2007.
- [53] R. L. Benedetto. Preperiodic points of polynomials over global fields. *J. Reine Angew. Math.* To appear.
- [54] R. L. Benedetto. *Fatou components in p -adic dynamics*. PhD thesis, Brown University, 1998.

- [55] R. L. Benedetto. p -adic dynamics and Sullivan’s no wandering domains theorem. *Compositio Math.*, 122(3):281–298, 2000.
- [56] R. L. Benedetto. An elementary product identity in polynomial dynamics. *Amer. Math. Monthly*, 108(9):860–864, 2001.
- [57] R. L. Benedetto. Hyperbolic maps in p -adic dynamics. *Ergodic Theory Dynam. Systems*, 21(1):1–11, 2001.
- [58] R. L. Benedetto. Reduction, dynamics, and Julia sets of rational functions. *J. Number Theory*, 86(2):175–195, 2001.
- [59] R. L. Benedetto. Components and periodic points in non-Archimedean dynamics. *Proc. London Math. Soc. (3)*, 84(1):231–256, 2002.
- [60] R. L. Benedetto. Examples of wandering domains in p -adic polynomial dynamics. *C. R. Math. Acad. Sci. Paris*, 335(7):615–620, 2002.
- [61] R. L. Benedetto. Non-Archimedean holomorphic maps and the Ahlfors Islands theorem. *Amer. J. Math.*, 125(3):581–622, 2003.
- [62] R. L. Benedetto. Heights and preperiodic points of polynomials over function fields. *Int. Math. Res. Not.*, (62):3855–3866, 2005.
- [63] R. L. Benedetto. Wandering domains and nontrivial reduction in non-Archimedean dynamics. *Illinois J. Math.*, 49(1):167–193 (electronic), 2005.
- [64] R. L. Benedetto. Wandering domains in non-archimedean polynomial dynamics. *Bull. London Math. Soc.*, 38(6):937–950, 2006.
- [65] C. Bennett and E. Mosteig. On the collection of integers that index the fixed points of maps on the space of rational functions, 2007. arxiv.org/abs/0705.3233.
- [66] V. G. Berkovich. *Spectral Theory and Analytic Geometry over Non-Archimedean Fields*, volume 33 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 1990.
- [67] V. G. Berkovich. Étale cohomology for non-Archimedean analytic spaces. *Inst. Hautes Études Sci. Publ. Math.*, (78):5–161 (1994), 1993.
- [68] V. G. Berkovich. The automorphism group of the Drinfel’d half-plane. *C. R. Acad. Sci. Paris Sér. I Math.*, 321(9):1127–1132, 1995.
- [69] V. G. Berkovich. p -adic analytic spaces. In *Proceedings of the International Congress of Mathematicians, Vol. II (Berlin, 1998)*, number Extra Vol. II, pages 141–151 (electronic), 1998.
- [70] F. Berteloot and J.-J. Loeb. Une caractérisation géométrique des exemples de Lattès de \mathbb{P}^k . *Bull. Soc. Math. France*, 129(2):175–188, 2001.
- [71] E. A. Bertram. Polynomials which commute with a Tchebycheff polynomial. *Amer. Math. Monthly*, 78:650–653, 1971.
- [72] J.-P. Bézivin. Sur les ensembles de Julia et Fatou des fonctions entières ultramétriques. *Ann. Inst. Fourier (Grenoble)*, 51(6):1635–1661, 2001.
- [73] J.-P. Bézivin. Sur les points périodiques des applications rationnelles en dynamique ultramétrique. *Acta Arith.*, 100(1):63–74, 2001.
- [74] J.-P. Bézivin. Fractions rationnelles hyperboliques p -adiques. *Acta Arith.*, 112(2):151–175, 2004.
- [75] J.-P. Bézivin. Sur la compacité des ensembles de Julia des polynômes p -adiques. *Math. Z.*, 246(1-2):273–289, 2004.

- [76] P. Blanchard. Complex analytic dynamics on the Riemann sphere. *Bull. Amer. Math. Soc. (N.S.)*, 11(1):85–141, 1984.
- [77] P. E. Blanksby and H. L. Montgomery. Algebraic integers near the unit circle. *Acta Arith.*, 18:355–369, 1971.
- [78] E. Bombieri and W. Gubler. *Heights in Diophantine Geometry*. Number 4 in New Mathematical Monographs. Cambridge University Press, Cambridge, 2006.
- [79] A. M. Bonifant and J. E. Fornæss. Growth of degree for iterates of rational maps in several variables. *Indiana Univ. Math. J.*, 49(2):751–778, 2000.
- [80] A. I. Borevich and I. R. Shafarevich. *Number Theory*. Translated from the Russian by Newcomb Greenleaf. Pure and Applied Mathematics, Vol. 20. Academic Press, New York, 1966.
- [81] G. Boros, M. Joyce, and V. Moll. A transformation of rational functions. *Elem. Math.*, 58(2):73–83, 2003.
- [82] G. Boros, J. Little, V. Moll, E. Mosteig, and R. Stanley. A map on the space of rational functions. *Rocky Mountain J. Math.*, 35(6):1861–1880, 2005.
- [83] S. Bosch, U. Güntzer, and R. Remmert. *Non-Archimedean analysis*, volume 261 of *Grundlehren der Mathematischen Wissenschaften*. Springer-Verlag, Berlin, 1984. A systematic approach to rigid analytic geometry.
- [84] D. Bosio and F. Vivaldi. Round-off errors and p -adic numbers. *Nonlinearity*, 13(1):309–322, 2000.
- [85] T. Bousch. *Sur quelques problèmes de dynamique holomorphe*. PhD thesis, Université de Paris-Sud, Centre d’Orsay, 1992.
- [86] D. W. Boyd. Mahler’s measure and special values of L -functions. *Experiment. Math.*, 7(1):37–82, 1998.
- [87] A. Broise and F. Paulin. Dynamique sur le rayon modulaire et fractions continues en caractéristique p , 2005. [ArXiv:math.GR/0511442](https://arxiv.org/abs/math/0511442).
- [88] J. Bryk and C. E. Silva. Measurable dynamics of simple p -adic polynomials. *Amer. Math. Monthly*, 112(3):212–232, 2005.
- [89] A. Buium. Complex dynamics and invariant forms mod p . *Int. Math. Res. Not.*, (31):1889–1899, 2005.
- [90] A. Buium and K. Zimmerman. Differential orbit spaces of discrete dynamical systems. *J. Reine Angew. Math.*, 580:201–230, 2005.
- [91] G. S. Call and S. W. Goldstine. Canonical heights on projective space. *J. Number Theory*, 63(2):211–243, 1997.
- [92] G. S. Call and J. H. Silverman. Canonical heights on varieties with morphisms. *Compositio Math.*, 89(2):163–205, 1993.
- [93] G. S. Call and J. H. Silverman. Computing the canonical height on K^3 surfaces. *Math. Comp.*, 65(213):259–290, 1996.
- [94] J. K. Canci. Cycles for rational maps with good reduction outside a prescribed set. *Monatsh. Math.*, 149(4):265–287, 2007.
- [95] J. K. Canci. Finite rational orbits for rational functions. *Indag. Math. (N.S.)*, 2007. To appear.
- [96] J. K. Canci. Rational periodic points for quadratic maps, 2007. Preprint, 2007.
- [97] S. Cantat. Dynamique des automorphismes des surfaces K^3 . *Acta Math.*, 187(1):1–57, 2001.

- [98] D. C. Cantor and E. G. Straus. On a conjecture of D. H. Lehmer. *Acta Arith.*, 42(1):97–100, 1982/83.
- [99] L. Carleson and T. W. Gamelin. *Complex Dynamics*. Universitext: Tracts in Mathematics. Springer-Verlag, New York, 1993.
- [100] J. W. S. Cassels. *Lectures on Elliptic Curves*, volume 24 of *London Mathematical Society Student Texts*. Cambridge University Press, Cambridge, 1991.
- [101] J. W. S. Cassels and A. Fröhlich, editors. *Algebraic Number Theory*, London, 1986. Academic Press Inc. [Harcourt Brace Jovanovich Publishers]. Reprint of the 1967 original.
- [102] A. Chambert-Loir. Mesures et équidistribution sur les espaces de Berkovich. *J. Reine Angew. Math.*, 595:215–235, 2006.
- [103] A. Chambert-Loir and A. Thuillier. Formule de Mahler et équidistribution logarithmique, 2006. [ArXiv:math.NT/0612556](https://arxiv.org/abs/math/0612556).
- [104] G. Chassé. Combinatorial cycles of a polynomial map over a commutative field. *Discrete Math.*, 61(1):21–26, 1986.
- [105] W. Cherry and C.-C. Yang, editors. *Value distribution theory and complex dynamics*, volume 303 of *Contemporary Mathematics*, Providence, RI, 2002. American Mathematical Society.
- [106] V. Chothi, G. Everest, and T. Ward. S -integer dynamical systems: periodic points. *J. Reine Angew. Math.*, 489:99–132, 1997.
- [107] W.-S. Chou and I. E. Shparlinski. On the cycle structure of repeated exponentiation modulo a prime. *J. Number Theory*, 107(2):345–356, 2004.
- [108] A. Chowla. Contributions to the analytic theory of numbers (II). *J. Indian Math. Soc.*, 20:120–128, 1933.
- [109] Z. Coelho and W. Parry. Ergodicity of p -adic multiplications and the distribution of Fibonacci numbers. In *Topology, Ergodic Theory, Real Algebraic Geometry*, volume 202 of *Amer. Math. Soc. Transl. Ser. 2*, pages 51–70. Amer. Math. Soc., Providence, RI, 2001.
- [110] H. Cohen. *A Course in Computational Algebraic Number Theory*, volume 138 of *Graduate Texts in Mathematics*. Springer-Verlag, Berlin, 1993.
- [111] H. Cohen. *Advanced topics in computational number theory*, volume 193 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 2000.
- [112] S. D. Cohen and D. Hachenberger. Actions of linearized polynomials on the algebraic closure of a finite field. In *Finite Fields: Theory, Applications, and Algorithms (Waterloo, ON, 1997)*, volume 225 of *Contemp. Math.*, pages 17–32. Amer. Math. Soc., Providence, RI, 1999.
- [113] S. D. Cohen and D. Hachenberger. The dynamics of linearized polynomials. *Proc. Edinburgh Math. Soc. (2)*, 43(1):113–128, 2000.
- [114] H. Cohn. Minimal geodesics on Fricke’s torus-covering. In *Riemann surfaces and related topics: Proceedings of the 1978 Stony Brook Conference (State Univ. New York, Stony Brook, N.Y., 1978)*, volume 97 of *Ann. of Math. Stud.*, pages 73–85, Princeton, N.J., 1981. Princeton Univ. Press.
- [115] O. Colón-Reyes, A. Jarrah, R. Laubenbacher, and B. Sturmfels. Monomial dynamical systems over finite fields. *Complex Systems*, 16(4):333–342, 2006.
- [116] C. Consani and M. Marcolli. Noncommutative geometry, dynamics, and ∞ -adic Arakelov geometry. *Selecta Math. (N.S.)*, 10(2):167–251, 2004.

- [117] J.-M. Couveignes. Calcul et rationalité de fonctions de Belyï en genre 0. *Ann. Inst. Fourier (Grenoble)*, 44(1):1–38, 1994.
- [118] D. Cox, J. Little, and D. O’Shea. *Ideals, Varieties, and Algorithms*. Undergraduate Texts in Mathematics. Springer-Verlag, New York, 1997.
- [119] J. E. Cremona. On the Galois groups of the iterates of $x^2 + 1$. *Mathematika*, 36(2):259–261 (1990), 1989.
- [120] P. D’Ambros, G. Everest, R. Miles, and T. Ward. Dynamical systems arising from elliptic curves. *Colloq. Math.*, 84/85(, part 1):95–107, 2000. Dedicated to the memory of Anzelm Iwanik.
- [121] L. Danielson and B. Fein. On the irreducibility of the iterates of $x^n - b$. *Proc. Amer. Math. Soc.*, 130(6):1589–1596 (electronic), 2002.
- [122] S. De Smedt and A. Khrennikov. A p -adic behaviour of dynamical systems. *Rev. Mat. Complut.*, 12(2):301–323, 1999.
- [123] P. Dèbes and J.-C. Douai. Algebraic covers: field of moduli versus field of definition. *Ann. Sci. École Norm. Sup. (4)*, 30(3):303–338, 1997.
- [124] P. Dèbes and J.-C. Douai. Local-global principles for algebraic covers. *Israel J. Math.*, 103:237–257, 1998.
- [125] P. Dèbes and J.-C. Douai. Gerbes and covers. *Comm. Algebra*, 27(2):577–594, 1999.
- [126] P. Dèbes and D. Harbater. Fields of definition of p -adic covers. *J. Reine Angew. Math.*, 498:223–236, 1998.
- [127] L. DeMarco. Iteration at the boundary of the space of rational maps, 2005.
- [128] L. DeMarco. The moduli space of quadratic rational maps, 2007.
- [129] L. DeMarco and R. Rumely. Transfinite diameter and the resultant, 2007. To appear.
- [130] C. Deninger. Some analogies between number theory and dynamical systems on foliated spaces. In *Proceedings of the International Congress of Mathematicians, Vol. I (Berlin, 1998)*, number Extra Vol. I, pages 163–186 (electronic), 1998.
- [131] C. Deninger. On dynamical systems and their possible significance for arithmetic geometry. In *Regulators in Analysis, Geometry and Number Theory*, volume 171 of *Progr. Math.*, pages 29–87. Birkhäuser Boston, Boston, MA, 2000.
- [132] C. Deninger. Number theory and dynamical systems on foliated spaces. *Jahresber. Deutsch. Math.-Verein.*, 103(3):79–100, 2001.
- [133] C. Deninger. A note on arithmetic topology and dynamical systems. In *Algebraic Number Theory and Algebraic Geometry*, volume 300 of *Contemp. Math.*, pages 99–114. Amer. Math. Soc., Providence, RI, 2002.
- [134] C. Deninger. Arithmetic geometry and analysis on foliated spaces, 2005. unpublished, [ArXiv:math.NT/0505354](https://arxiv.org/abs/math/0505354).
- [135] C. Deninger. A dynamical systems analogue of Lichtenbaum’s conjectures on special values of Hasse-Weil zeta functions, 2006. [ArXiv:math.NT/0605724](https://arxiv.org/abs/math.NT/0605724).
- [136] C. Deninger. p -adic entropy and a p -adic Fuglede-Kadison determinant, 2006. [ArXiv:math.DS/0608539](https://arxiv.org/abs/math.DS/0608539).
- [137] L. Denis. Géométrie et suites récurrentes. *Bull. Soc. Math. France*, 122(1):13–27, 1994.

- [138] L. Denis. Points périodiques des automorphismes affines. *J. Reine Angew. Math.*, 467:157–167, 1995.
- [139] R. Devaney. *An Introduction to Chaotic Dynamical Systems*. Addison-Wesley, Redwood City, CA, 2nd edition, 1989.
- [140] J. Diller and C. Favre. Dynamics of bimeromorphic maps of surfaces. *Amer. J. Math.*, 123(6):1135–1169, 2001.
- [141] T.-C. Dinh. Sur les applications de Lattès de \mathbb{P}^k . *J. Math. Pures Appl. (9)*, 80(6):577–592, 2001.
- [142] T.-C. Dinh and N. Sibony. Sur les endomorphismes holomorphes permutables de \mathbb{P}^k . *Math. Ann.*, 324(1):33–70, 2002.
- [143] T.-C. Dinh and N. Sibony. Dynamique des applications polynomiales semi-régulières. *Ark. Mat.*, 42(1):61–85, 2004.
- [144] Z. Divišová. On cycles of polynomials with integral rational coefficients. *Math. Slovaca*, 52(5):537–540, 2002.
- [145] E. Dobrowolski. On a question of Lehmer and the number of irreducible factors of a polynomial. *Acta Arith.*, 34:391–401, 1979.
- [146] M. M. Dodson and J. A. G. Vickers, editors. *Number Theory and Dynamical Systems*, Cambridge, 1989. Cambridge University Press. Papers from the meeting held at the University of York, York, March 30–April 15, 1987.
- [147] V. Dolotin and A. Morozov. Algebraic geometry of discrete dynamics. The case of one variable. ITEP-TH-02/05.
- [148] A. Douady and J. H. Hubbard. Itération des polynômes quadratiques complexes. *C. R. Acad. Sci. Paris Sér. I Math.*, 294(3):123–126, 1982.
- [149] A. Douady and J. H. Hubbard. *Étude dynamique des polynômes complexes. Partie I*, volume 84 of *Publications Mathématiques d’Orsay [Mathematical Publications of Orsay]*. Université de Paris-Sud, Département de Mathématiques, Orsay, 1984.
- [150] A. Douady and J. H. Hubbard. *Étude dynamique des polynômes complexes. Partie II*, volume 85 of *Publications Mathématiques d’Orsay [Mathematical Publications of Orsay]*. Université de Paris-Sud, Département de Mathématiques, Orsay, 1985. With the collaboration of P. Lavaurs, Tan Lei and P. Sentenac.
- [151] B.-S. Du, S.-S. Huang, and M.-C. Li. Newton, Fermat, and exactly realizable sequences. *J. Integer Seq.*, 8(1):Article 05.1.2, 8 pp. (electronic), 2005.
- [152] C. Dupont. Exemples de Lattès et domaines faiblement sphériques de \mathbb{C}^n . *Manuscripta Math.*, 111(3):357–378, 2003.
- [153] R. Dvornicich and U. Zannier. Cyclotomic Diophantine problems (Hilbert irreducibility and invariant sets for polynomial maps), 2006. Preprint, June 2006.
- [154] M. Einsiedler, G. Everest, and T. Ward. Entropy and the canonical height. *J. Number Theory*, 91(2):256–273, 2001.
- [155] M. Einsiedler, G. Everest, and T. Ward. Morphic heights and periodic points. In *Number Theory (New York, 2003)*, pages 167–177. Springer, New York, 2004.
- [156] M. Einsiedler, G. Everest, and T. Ward. Periodic points for good reduction maps on curves. *Geom. Dedicata*, 106:29–41, 2004.
- [157] M. Einsiedler and T. Ward. Fitting ideals for finitely presented algebraic dynamical systems. *Aequationes Math.*, 60(1-2):57–71, 2000.

- [158] N. Elkies. Nontorsion points of low height on elliptic curves over \mathbb{Q} , 2002. www.math.harvard.edu/~elkies/low_height.html.
- [159] P. Erdős, A. Granville, C. Pomerance, and C. Spiro. On the normal behavior of the iterates of some arithmetic functions. In *Analytic number theory (Allerton Park, IL, 1989)*, volume 85 of *Progr. Math.*, pages 165–204. Birkhäuser Boston, Boston, MA, 1990.
- [160] A. È. Erëmenko. Some functional equations connected with the iteration of rational functions. *Algebra i Analiz*, 1(4):102–116, 1989.
- [161] G. Everest. On the elliptic analogue of Jensen’s formula. *J. London Math. Soc. (2)*, 59(1):21–36, 1999.
- [162] G. Everest and B. N. Fhlathúin. The elliptic Mahler measure. *Math. Proc. Cambridge Philos. Soc.*, 120(1):13–25, 1996.
- [163] G. Everest, R. Miles, S. Stevens, and T. Ward. Dirichlet series for finite combinatorial rank dynamics. [arXiv:0705.1067v1](https://arxiv.org/abs/0705.1067v1).
- [164] G. Everest and C. Pinner. Bounding the elliptic Mahler measure. II. *J. London Math. Soc. (2)*, 58(1):1–8, 1998.
- [165] G. Everest and C. Pinner. Corrigendum: “Bounding the elliptic Mahler measure. II” [J. London Math. Soc. (2) **58** (1998), no. 1, 1–8.]. *J. London Math. Soc. (2)*, 62(2):640, 2000.
- [166] G. Everest, A. van der Poorten, Y. Puri, and T. Ward. Integer sequences and periodic points. *J. Integer Seq.*, 5(2):Article 02.2.3, 10 pp. (electronic), 2002.
- [167] G. Everest, A. van der Poorten, I. Shparlinski, and T. Ward. *Recurrence Sequences*, volume 104 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, 2003.
- [168] G. Everest and T. Ward. A dynamical interpretation of the global canonical height on an elliptic curve. *Experiment. Math.*, 7(4):305–316, 1998.
- [169] G. Everest and T. Ward. *Heights of polynomials and entropy in algebraic dynamics*. Springer-Verlag London Ltd., London, 1999.
- [170] N. Fagella and J. Llibre. Periodic points of holomorphic maps via Lefschetz numbers. *Trans. Amer. Math. Soc.*, 352(10):4711–4730, 2000.
- [171] N. Fakhruddin. Boundedness results for periodic points on algebraic varieties. *Proc. Indian Acad. Sci. Math. Sci.*, 111(2):173–178, 2001.
- [172] N. Fakhruddin. Questions on self maps of algebraic varieties. *J. Ramanujan Math. Soc.*, 18(2):109–122, 2003.
- [173] G. Faltings. Endlichkeitssätze für abelsche Varietäten über Zahlkörpern. *Invent. Math.*, 73(3):349–366, 1983.
- [174] G. Faltings. Finiteness theorems for abelian varieties over number fields. In *Arithmetic geometry (Storrs, Conn., 1984)*, pages 9–27. Springer, New York, 1986. Translated from the German original [Invent. Math. **73** (1983), no. 3, 349–366; *ibid.* **75** (1984), no. 2, 381] by Edward Shipz.
- [175] P. Fatou. Sur les équations fonctionnelles. *Bull. Soc. Math. France*, 47:161–271, 1919.
- [176] P. Fatou. Sur les équations fonctionnelles. *Bull. Soc. Math. France*, 48:33–94 and 208–314, 1920.
- [177] C. Favre and J. Rivera-Letelier. Théorème d’équidistribution de Brolin en dynamique p -adique. *C. R. Math. Acad. Sci. Paris*, 339(4):271–276, 2004.

- [178] C. Favre and J. Rivera-Letelier. Équidistribution quantitative des points de petite hauteur sur la droite projective. *Math. Ann.*, 335(2):311–361, 2006.
- [179] G. Fernandez. Wandering Fatou components on p -adic polynomial dynamics, 2004. [ArXiv:math.DS/0503720](https://arxiv.org/abs/math/0503720).
- [180] E. V. Flynn, B. Poonen, and E. F. Schaefer. Cycles of quadratic polynomials and rational points on a genus-2 curve. *Duke Math. J.*, 90(3):435–463, 1997.
- [181] J. E. Fornæss and N. Sibony. Complex dynamics in higher dimension. I. *Astérisque*, (222):5, 201–231, 1994.
- [182] J. E. Fornæss and N. Sibony. Complex dynamics in higher dimensions. In *Complex Potential Theory (Montreal, PQ, 1993)*, volume 439 of *NATO Adv. Sci. Inst. Ser. C Math. Phys. Sci.*, pages 131–186. Kluwer Acad. Publ., Dordrecht, 1994.
- [183] J. E. Fornæss and N. Sibony. Complex dynamics in higher dimension. II. In *Modern Methods in Complex Analysis (Princeton, NJ, 1992)*, volume 137 of *Ann. of Math. Stud.*, pages 135–182. Princeton Univ. Press, Princeton, NJ, 1995.
- [184] J. Fresnel and M. van der Put. *Rigid analytic geometry and its applications*, volume 218 of *Progress in Mathematics*. Birkhäuser Boston Inc., Boston, MA, 2004.
- [185] S. Friedland and J. Milnor. Dynamical properties of plane polynomial automorphisms. *Ergodic Theory Dynam. Systems*, 9(1):67–99, 1989.
- [186] J. A. C. Gallas. Units: remarkable points in dynamical systems. *Phys. A*, 222(1-4):125–151, 1995.
- [187] *Géométrie des surfaces K3: modules et périodes*. Société Mathématique de France, Paris, 1985. Papers from the seminar held in Palaiseau, October 1981–January 1982, Astérisque No. 126 (1985).
- [188] S. Getachew. *Galois Theory of Polynomial Iterates*. PhD thesis, Brown University, 2000.
- [189] D. Ghioca. Equidistribution for torsion points of a Drinfeld module. *Math. Ann.*, 336(4):841–865, 2006.
- [190] D. Ghioca and T. Tucker. A dynamical version of the Mordell-Lang conjecture for the additive group, 2006. [arXiv:0704.1333](https://arxiv.org/abs/0704.1333).
- [191] D. Ghioca, T. Tucker, and M. Zieve. Intersections of polynomial orbits, and a dynamical Mordell-Lang conjecture, 2007. [arXiv:0705.1954](https://arxiv.org/abs/0705.1954).
- [192] H. Glöckner. Aspects of p -adic non-linear functional analysis. In *p -adic mathematical physics*, volume 826 of *AIP Conf. Proc.*, pages 237–253. Amer. Inst. Phys., Melville, NY, 2006.
- [193] H. Glockner. Equidistribution and integral points for Drinfeld modules, 2006. [ArXiv:math.NT/0609120](https://arxiv.org/abs/math/0609120).
- [194] A. Gorodnik, H. Oh, and N. Shah. Integral points on symmetric varieties and Satake compactifications, 2006. [ArXiv:math.NT/0610497](https://arxiv.org/abs/math/0610497).
- [195] F. Q. Gouvêa. *p -adic numbers*. Universitext. Springer-Verlag, Berlin, second edition, 1997. An introduction.
- [196] R. L. Graham, D. E. Knuth, and O. Patashnik. *Concrete Mathematics*. Addison-Wesley Publishing Company, Reading, MA, second edition, 1994. A foundation for computer science.

- [197] B. Green and M. Matignon. Order p automorphisms of the open disc of a p -adic field. *J. Amer. Math. Soc.*, 12(1):269–303, 1999.
- [198] P. Griffiths and J. Harris. *Principles of Algebraic Geometry*. Wiley Classics Library. John Wiley & Sons Inc., New York, 1994. Reprint of the 1978 original.
- [199] V. Guedj and N. Sibony. Dynamics of polynomial automorphisms of \mathbb{C}^k . *Ark. Mat.*, 40(2):207–243, 2002.
- [200] M. Gundlach, A. Khrennikov, and K.-O. Lindahl. On ergodic behavior of p -adic dynamical systems. *Infin. Dimens. Anal. Quantum Probab. Relat. Top.*, 4(4):569–577, 2001.
- [201] M. Gundlach, A. Khrennikov, and K.-O. Lindahl. Topological transitivity for p -adic dynamical systems. In *p -adic functional analysis (Ioannina, 2000)*, volume 222 of *Lecture Notes in Pure and Appl. Math.*, pages 127–132. Dekker, New York, 2001.
- [202] K. Györy. Sur les polynômes à coefficients entiers et de discriminant donné. *Acta Arith.*, 23:419–426, 1973.
- [203] K. Györy. Sur les polynômes à coefficients entiers et de discriminant donné. II. *Publ. Math. Debrecen*, 21:125–144, 1974.
- [204] K. Györy. Sur les polynômes à coefficients entiers et de discriminant donné. III. *Publ. Math. Debrecen*, 23(1-2):141–165, 1976.
- [205] N. B. Haaser and J. A. Sullivan. *Real Analysis*. Dover Publications Inc., New York, 1991. Revised reprint of the 1971 original.
- [206] F. Halter-Koch and P. Konečná. Polynomial cycles in finite extension fields. *Math. Slovaca*, 52(5):531–535, 2002.
- [207] F. Halter-Koch and W. Narkiewicz. Finiteness properties of polynomial mappings. *Math. Nachr.*, 159:7–18, 1992.
- [208] F. Halter-Koch and W. Narkiewicz. Polynomial cycles in finitely generated domains. *Monatsh. Math.*, 119(4):275–279, 1995.
- [209] F. Halter-Koch and W. Narkiewicz. Polynomial cycles and dynamical units. In *Proceedings of a Conference on Analytic and Elementary Number Theory (Wien 1996)*, pages 70–80. 1997. www.boku.ac.at/math/proc.html.
- [210] F. Halter-Koch and W. Narkiewicz. Scarcity of finite polynomial orbits. *Publ. Math. Debrecen*, 56(3-4):405–414, 2000. Dedicated to Professor Kálmán Györy on the occasion of his 60th birthday.
- [211] B. Harris. Probability distributions related to random mappings. *Ann. Math. Statist.*, 31:1045–1062, 1960.
- [212] J. Harris. *Algebraic Geometry*, volume 133 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1995. A first course, Corrected reprint of the 1992 original.
- [213] R. Hartshorne. *Algebraic Geometry*. Springer-Verlag, New York, 1977. Graduate Texts in Mathematics, No. 52.
- [214] B. Hasselblatt and J. Propp. Monomial maps and algebraic entropy, 2006. [ArXiv:math.DS/0604521](https://arxiv.org/abs/math/0604521).
- [215] M. Hénon. A two-dimensional mapping with a strange attractor. *Comm. Math. Phys.*, 50(1):69–77, 1976.

- [216] M. Herman and J.-C. Yoccoz. Generalizations of some theorems of small divisors to non-archimedean fields. In *Geometric Dynamics*, volume 1007 of *Lecture Notes in Mathematics*, pages 408–447. Springer-Verlag, 1983. Rio de Janeiro (1981).
- [217] M. Hindry and J. H. Silverman. The canonical height and integral points on elliptic curves. *Invent. Math.*, 93(2):419–450, 1988.
- [218] M. Hindry and J. H. Silverman. On Lehmer’s conjecture for elliptic curves. In *Séminaire de Théorie des Nombres, Paris 1988–1989*, volume 91 of *Progr. Math.*, pages 103–116. Birkhäuser Boston, Boston, MA, 1990.
- [219] M. Hindry and J. H. Silverman. Sur le nombre de points de torsion rationnels sur une courbe elliptique. *C. R. Acad. Sci. Paris Sér. I Math.*, 329(2):97–100, 1999.
- [220] M. Hindry and J. H. Silverman. *Diophantine Geometry*, volume 201 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 2000. An introduction.
- [221] L.-C. Hsia. A weak Néron model with applications to p -adic dynamical systems. *Compositio Math.*, 100(3):277–304, 1996.
- [222] L.-C. Hsia. On the dynamical height zeta functions. *J. Number Theory*, 63(1):146–169, 1997.
- [223] L.-C. Hsia. Closure of periodic points over a non-Archimedean field. *J. London Math. Soc. (2)*, 62(3):685–700, 2000.
- [224] L.-C. Hsia. p -adic equidistribution theorems. manuscript, 2003.
- [225] L. K. Hua. *Introduction to Number Theory*. Springer-Verlag, Berlin, 1982. Translated from the Chinese by Peter Shiu.
- [226] J. Hubbard. The Hénon mapping in the complex domain. In *Chaotic Dynamics and Fractals (Atlanta, Ga., 1985)*, volume 2 of *Notes Rep. Math. Sci. Engrg.*, pages 101–111. Academic Press, Orlando, FL, 1986.
- [227] J. Hubbard, P. Papadopol, and V. Veselov. A compactification of Hénon mappings in \mathbb{C}^2 as dynamical systems. *Acta Math.*, 184(2):203–270, 2000.
- [228] J. Hubbard and D. Schleicher. The spider algorithm. In *Complex Dynamical Systems (Cincinnati, OH, 1994)*, volume 49 of *Proc. Sympos. Appl. Math.*, pages 155–180. Amer. Math. Soc., Providence, RI, 1994.
- [229] B. Hutz. *Arithmetic Dynamics on Varieties in Dimension Greater Than One*. PhD thesis, Brown University, 2007.
- [230] E. Ionascu and P. Stanica. Effective asymptotics for some nonlinear recurrences and almost doubly-exponential sequences. *Acta Math. Univ. Comenian. (N.S.)*, 73(1):75–87, 2004.
- [231] K. Ireland and M. Rosen. *A Classical Introduction to Modern Number Theory*, volume 84 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1990.
- [232] K. Jänich. *Topology*. Undergraduate Texts in Mathematics. Springer-Verlag, New York, 1984. With a chapter by Theodor Bröcker, Translated from the German by Silvio Levy.
- [233] D. Jogia, J. A. G. Roberts, and F. Vivaldi. The Hasse-Weil bound and integrability detection in rational maps. *J. Nonlinear Math. Phys.*, 10(suppl. 2):166–180, 2003.

- [234] D. Jogle, J. A. G. Roberts, and F. Vivaldi. An algebraic geometric approach to integrable maps of the plane. *J. Phys. A*, 39(5):1133–1149, 2006.
- [235] R. Jones. *Galois Martingales and the p -adic Hyperbolic Mandelbrot Set*. PhD thesis, Brown University, 2005.
- [236] R. Jones. The density of prime divisors in the arithmetic dynamics of quadratic polynomials, 2006. `ArXiv:math.NT/0612415`.
- [237] R. Jones. Iterated Galois towers, their associated martingales, and the p -adic Mandelbrot set. *Compositio Math.*, 2007. To appear.
- [238] G. Julia. Mémoire sur l’itération des fonctions rationnelles. *Journal de Math. Pures et Appl.*, 8:47–245, 1918.
- [239] G. Julia. Mémoire sur la permutabilité des fractions rationnelles. *Ann. Sci. École Norm. Sup. (3)*, 39:131–215, 1922.
- [240] S. Kamienny. Torsion points on elliptic curves and q -coefficients of modular forms. *Invent. Math.*, 109(2):221–229, 1992.
- [241] A. Katok and B. Hasselblatt. *Introduction to the Modern Theory of Dynamical Systems*, volume 54 of *Encyclopedia of Mathematics and its Applications*. Cambridge University Press, Cambridge, 1995. With a supplementary chapter by Katok and Leonardo Mendoza.
- [242] S. Kawaguchi. Some remarks on rational periodic points. *Math. Res. Lett.*, 6(5-6):495–509, 1999.
- [243] S. Kawaguchi. Canonical heights for random iterations in certain varieties, 2005. Preprint.
- [244] S. Kawaguchi. Projective surface automorphisms of positive topological entropy from an arithmetic viewpoint, 2005. Preprint.
- [245] S. Kawaguchi. Canonical height functions for affine plane automorphisms. *Math. Ann.*, 335(2):285–310, 2006.
- [246] S. Kawaguchi. Canonical heights, invariant currents, and dynamical eigensystems of morphisms for line bundles. *J. Reine Angew. Math.*, 597:135–173, 2006.
- [247] S. Kawaguchi and J. H. Silverman. Arithmetic complexity of morphisms, 2006. Preprint.
- [248] S. Kawaguchi and J. H. Silverman. Nonarchimedean Green functions and dynamics on projective space, 2006. Preprint.
- [249] S. Kawaguchi and J. H. Silverman. Dynamics of projective morphisms having identical canonical heights. *Proc. Lond. Math. Soc., II. Ser.*, 2007. To appear.
- [250] L. Keen. Julia sets of rational maps. In *Complex Dynamical Systems*, volume 49 of *Proceedings of Symposia in Applied Mathematics*, pages 71–90. American Mathematical Society, 1994. Cincinnati (1994).
- [251] M. Khamraev and F. Mukhamedov. On a class of rational p -adic dynamical systems. *J. Math. Anal. Appl.*, 315(1):76–89, 2006.
- [252] A. Khrennikov. *Non-Archimedean analysis: quantum paradoxes, dynamical systems and biological models*, volume 427 of *Mathematics and its Applications*. Kluwer Academic Publishers, Dordrecht, 1997.
- [253] A. Khrennikov. p -adic dynamical systems: description of concurrent struggle in a biological population with limited growth. *Dokl. Akad. Nauk*, 361(6):752–754, 1998.

- [254] A. Khrennikov. p -adic discrete dynamical systems and collective behaviour of information states in cognitive models. *Discrete Dynamics in Nature and Society*, 5(1):59–69, 2000.
- [255] A. Khrennikov. Ergodic and non-ergodic behaviour for dynamical systems in rings of p -adic integers. In *Fourth Italian-Latin American Conference on Applied and Industrial Mathematics (Havana, 2001)*, pages 404–409. Inst. Cybern. Math. Phys., Havana, 2001.
- [256] A. Khrennikov. Small denominators in complex p -adic dynamics. *Indag. Math. (N.S.)*, 12(2):177–189, 2001.
- [257] A. Khrennikov, K.-O. Lindahl, and M. Gundlach. Ergodicity in the p -adic framework. In *Operator Methods in Ordinary and Partial Differential Equations (Stockholm, 2000)*, volume 132 of *Oper. Theory Adv. Appl.*, pages 245–251. Birkhäuser, Basel, 2002.
- [258] A. Khrennikov and M. Nilson. *p -adic Deterministic and Random Dynamics*, volume 574 of *Mathematics and Its Applications*. Kluwer Academic Publishers, Dordrecht, 2004.
- [259] A. Khrennikov and M. Nilsson. On the number of cycles of p -adic dynamical systems. *J. Number Theory*, 90(2):255–264, 2001.
- [260] A. Khrennikov and M. Nilsson. Behaviour of Hensel perturbations of p -adic monomial dynamical systems. *Anal. Math.*, 29(2):107–133, 2003.
- [261] A. Khrennikov, M. Nilsson, and R. Nyqvist. The asymptotic number of periodic points of discrete polynomial p -adic dynamical systems. In *Ultrametric functional analysis (Nijmegen, 2002)*, volume 319 of *Contemp. Math.*, pages 159–166. Amer. Math. Soc., Providence, RI, 2003.
- [262] J. Kingsbery, A. Levin, A. Preygel, and C. E. Silva. Measurable dynamics of maps on profinite groups. [arXiv:math.DS/0701899](https://arxiv.org/abs/math/0701899).
- [263] J. Kiwi. Puiseux series polynomial dynamics and iteration of complex cubic polynomials. *Ann. Inst. Fourier (Grenoble)*, 56(5):1337–1404, 2006.
- [264] D. Kleinbock, N. Shah, and A. Starkov. Dynamics of subgroup actions on homogeneous spaces of Lie groups and applications to number theory. In *Handbook of Dynamical Systems, Vol. 1A*, pages 813–930. North-Holland, Amsterdam, 2002.
- [265] A. W. Knap. *Elliptic Curves*, volume 40 of *Mathematical Notes*. Princeton University Press, Princeton, NJ, 1992.
- [266] N. Koblitz. *p -adic Numbers, p -adic Analysis, and Zeta-Functions*, volume 58 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1984.
- [267] N. Koblitz. *Introduction to Elliptic Curves and Modular Forms*, volume 97 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1993.
- [268] B. Kra. Ergodic methods in additive combinatorics, 2006. [ArXiv:math.DS/0608105](https://arxiv.org/abs/math/0608105).
- [269] J. C. Lagarias. Number theory and dynamical systems. In *The Unreasonable Effectiveness of Number Theory (Orono, ME, 1991)*, volume 46 of *Proc. Sympos. Appl. Math.*, pages 35–72. Amer. Math. Soc., Providence, RI, 1992.
- [270] J. C. Lagarias. The $3x + 1$ problem: An annotated bibliography, I & II, 2006. [ArXiv:math.NT/0309224](https://arxiv.org/abs/math/0309224), [ArXiv:math.NT/0608208](https://arxiv.org/abs/math/0608208).

- [271] J. C. Lagarias and N. J. A. Sloane. Approximate squaring. *Experimental Math.*, 13(1):113–128, 2004.
- [272] S. Lang. *Elliptic Curves: Diophantine Analysis*, volume 231 of *Grundlehren der Mathematischen Wissenschaften*. Springer-Verlag, Berlin, 1978.
- [273] S. Lang. *Introduction to Algebraic and Abelian Functions*. Springer-Verlag, Berlin, 2 edition, 1982.
- [274] S. Lang. *Fundamentals of Diophantine Geometry*. Springer-Verlag, New York, 1983.
- [275] S. Lang. *Elliptic Functions*, volume 112 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1987. With an appendix by J. Tate.
- [276] S. Lang. *Algebraic Number Theory*, volume 110 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1994.
- [277] S. Lang. *Algebra*, volume 211 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, third edition, 2002.
- [278] S. Lattès. Sur l’iteration des substitutions rationnelles et les fonctions de Poincaré. *Comptes Rendus Acad. Sci. Paris*, 166:26–28, 1918.
- [279] E. Lau and D. Schleicher. Internal addresses in the Mandelbrot set and irreducibility of polynomials. Technical Report 1994/19, December 1994.
- [280] F. Laubie, A. Movahhedi, and A. Salinier. Systèmes dynamiques non archimédiens et corps des normes. *Compositio Math.*, 132(1):57–98, 2002.
- [281] M. Laurent. Minoration de la hauteur de Néron-Tate. In *Séminaire de Théorie des Nombres*, Progress in Mathematics, pages 137–151. Birkhäuser, 1983. Paris 1981–1982.
- [282] D. H. Lehmer. Factorization of certain cyclotomic functions. *Ann. of Math. (2)*, 34(3):461–479, 1933.
- [283] G. Levin and F. Przytycki. When do two rational functions have the same Julia set? *Proc. Amer. Math. Soc.*, 125(7):2179–2190, 1997.
- [284] D. Lewis. Invariant set of morphisms on projective and affine number spaces. *Journal of Algebra*, 20:419–434, 1972.
- [285] H.-C. Li. Counting periodic points of p -adic power series. *Compositio Math.*, 100(3):351–364, 1996.
- [286] H.-C. Li. p -adic dynamical systems and formal groups. *Compositio Math.*, 104(1):41–54, 1996.
- [287] H.-C. Li. p -adic periodic points and Sen’s theorem. *J. Number Theory*, 56(2):309–318, 1996.
- [288] H.-C. Li. When is a p -adic power series an endomorphism of a formal group? *Proc. Amer. Math. Soc.*, 124(8):2325–2329, 1996.
- [289] H.-C. Li. Isogenies between dynamics of formal groups. *J. Number Theory*, 62(2):284–297, 1997.
- [290] H.-C. Li. p -adic power series which commute under composition. *Trans. Amer. Math. Soc.*, 349(4):1437–1446, 1997.
- [291] H.-C. Li. On dynamics of power series over unramified extensions of \mathbb{Q}_p . *J. Reine Angew. Math.*, 545:183–200, 2002.
- [292] H.-C. Li. On heights of p -adic dynamical systems. *Proc. Amer. Math. Soc.*, 130(2):379–386 (electronic), 2002.

- [293] H.-C. Li. p -typical dynamical systems and formal groups. *Compositio Math.*, 130(1):75–88, 2002.
- [294] R. Lidl and H. Niederreiter. *Finite Fields*, volume 20 of *Encyclopedia of Mathematics and Its Applications*. Cambridge University Press, Cambridge, second edition, 1997. With a foreword by P. M. Cohn.
- [295] D. Lind and K. Schmidt. Symbolic and algebraic dynamical systems. In *Handbook of Dynamical Systems, Vol. 1A*, pages 765–812. North-Holland, Amsterdam, 2002.
- [296] D. Lind, K. Schmidt, and T. Ward. Mahler measure and entropy for commuting automorphisms of compact groups. *Invent. Math.*, 101(3):593–629, 1990.
- [297] D. Lind and T. Ward. Automorphisms of solenoids and p -adic entropy. *Ergodic Theory Dynam. Systems*, 8(3):411–419, 1988.
- [298] K.-O. Lindahl. On Siegel’s linearization theorem for fields of prime characteristic. *Nonlinearity*, 17(3):745–763, 2004.
- [299] J. Lubin. Non-Archimedean dynamical systems. *Compositio Math.*, 94(3):321–346, 1994.
- [300] J. Lubin. Sen’s theorem on iteration of power series. *Proc. Amer. Math. Soc.*, 123(1):63–66, 1995.
- [301] J. Lubin. Formal flows on the non-Archimedean open unit disk. *Compositio Math.*, 124(2):123–136, 2000.
- [302] J. Lubin. Seminar on p -adic time in nonarchimedean dynamical systems. Seminar at Brown University, prepared April 25, 1996.
- [303] J. Lubin and G. Sarkis. Extrinsic properties of automorphism groups of formal groups, 2007. To appear.
- [304] K. Mahler. On the lattice points on curves of genus 1. *Proc. Lond. Math. Soc., II. Ser.*, 39:431–466, 1935.
- [305] M. Manes. *Arithmetic Dynamics and Moduli Spaces of Rational Maps*. PhD thesis, Brown University, 2007.
- [306] S. Marcello. *Sur la dynamique arithmétique des automorphismes affines*. PhD thesis, Université Paris 7, 2000.
- [307] S. Marcello. Sur les propriétés arithmétiques des itérés d’automorphismes réguliers. *C. R. Acad. Sci. Paris Sér. I Math.*, 331(1):11–16, 2000.
- [308] S. Marcello. Géométrie, points rationnels et itérés des automorphismes de l’espace affine, 2003. [ArXiv:math.NT/0310434](https://arxiv.org/abs/math.NT/0310434).
- [309] S. Marcello. Sur des invariants géométriques associés aux automorphismes du plan affine, 2003. [ArXiv:math.AG/0310454](https://arxiv.org/abs/math.AG/0310454).
- [310] S. Marcello. Sur la dynamique arithmétique des automorphismes de l’espace affine. *Bull. Soc. Math. France*, 131(2):229–257, 2003.
- [311] S. Marcello. Sur la dynamique p -adique arithmétique des automorphismes de l’espace affine, 2003. [ArXiv:math.NT/0310417](https://arxiv.org/abs/math.NT/0310417).
- [312] D. W. Masser. Counting points of small height on elliptic curves. *Bull. Soc. Math. France*, 117(2):247–265, 1989.
- [313] A. Masuda and M. Zieve. Rational functions with linear relations, 2007. [arXiv:0705.2182](https://arxiv.org/abs/0705.2182).
- [314] B. Mazur. Modular curves and the Eisenstein ideal. *Inst. Hautes Études Sci. Publ. Math.*, (47):33–186 (1978), 1977.

- [315] E. M. McMillan. A problem in the stability of periodic systems. In *Topics in Modern Physics: A Tribute to E. U. Condon*, pages 219–244. Colorado Assoc. Univ. Press, Boulder, CO, 1971.
- [316] C. T. McMullen. Families of rational maps and iterative root-finding algorithms. *Ann. of Math. (2)*, 125(3):467–493, 1987.
- [317] C. T. McMullen. From dynamics on surfaces to rational points on curves. *Bull. Amer. Math. Soc. (N.S.)*, 37(2):119–140, 2000.
- [318] C. T. McMullen. Dynamics on $K3$ surfaces: Salem numbers and Siegel disks. *J. Reine Angew. Math.*, 545:201–233, 2002.
- [319] L. Merel. Bornes pour la torsion des courbes elliptiques sur les corps de nombres. *Invent. Math.*, 124(1-3):437–449, 1996.
- [320] J.-Y. Mérindol. Propriétés élémentaires des surfaces $K3$. *Astérisque*, (126):45–57, 1985. Geometry of $K3$ surfaces: moduli and periods (Palaiseau, 1981/1982).
- [321] J. S. Milne. *Étale Cohomology*, volume 33 of *Princeton Mathematical Series*. Princeton University Press, Princeton, N.J., 1980.
- [322] J. Milnor. On Lattès maps. ArXiv:math.DS/0402147, Stony Brook IMS Preprint #2004/01.
- [323] J. Milnor. Geometry and dynamics of quadratic rational maps. *Experiment. Math.*, 2(1):37–83, 1993. With an appendix by the author and Lei Tan.
- [324] J. Milnor. *Dynamics in One Complex Variable*. Friedr. Vieweg & Sohn, Braunschweig, 1999. Introductory lectures.
- [325] J. Milnor. On rational maps with two critical points. *Experiment. Math.*, 9(4):481–522, 2000.
- [326] D. W. Morris. *Ratner’s Theorems on Unipotent Flows*. Chicago Lectures in Mathematics. University of Chicago Press, Chicago, IL, 2005.
- [327] P. Morton. Arithmetic properties of periodic points of quadratic maps. *Acta Arith.*, 62(4):343–372, 1992.
- [328] P. Morton. Characterizing cyclic cubic extensions by automorphism polynomials. *J. Number Theory*, 49(2):183–208, 1994.
- [329] P. Morton. On certain algebraic curves related to polynomial maps. *Compositio Math.*, 103(3):319–350, 1996.
- [330] P. Morton. Periods of maps on irreducible polynomials over finite fields. *Finite Fields Appl.*, 3(1):11–24, 1997.
- [331] P. Morton. Arithmetic properties of periodic points of quadratic maps. II. *Acta Arith.*, 87(2):89–102, 1998.
- [332] P. Morton. Galois groups of periodic points. *J. Algebra*, 201(2):401–428, 1998.
- [333] P. Morton and P. Patel. The Galois theory of periodic points of polynomial maps. *Proc. London Math. Soc. (3)*, 68(2):225–263, 1994.
- [334] P. Morton and J. H. Silverman. Rational periodic points of rational functions. *Internat. Math. Res. Notices*, (2):97–110, 1994.
- [335] P. Morton and J. H. Silverman. Periodic points, multiplicities, and dynamical units. *J. Reine Angew. Math.*, 461:81–122, 1995.
- [336] P. Morton and F. Vivaldi. Bifurcations and discriminants for polynomial maps. *Nonlinearity*, 8(4):571–584, 1995.
- [337] P. Moussa. Ensembles de Julia et propriétés de localisation des entiers algébriques. In *Seminar on Number Theory, 1984–1985 (Talence, 1984/1985)*, pages Exp. No. 21, 10. Univ. Bordeaux I, Talence, 1985.

- [338] P. Moussa. Diophantine properties of Julia sets. In *Chaotic Dynamics and Fractals (Atlanta, Ga., 1985)*, volume 2 of *Notes Rep. Math. Sci. Engrg.*, pages 215–227. Academic Press, Orlando, FL, 1986.
- [339] P. Moussa, J. S. Geronimo, and D. Bessis. Ensembles de Julia et propriétés de localisation des familles itérées d’entiers algébriques. *C. R. Acad. Sci. Paris Sér. I Math.*, 299(8):281–284, 1984.
- [340] F. Mukhamedov and J. F. Mendes. On chaos of a cubic p -adic dynamical system, 2006. [ArXiv:math.DS/0608573](https://arxiv.org/abs/math/0608573).
- [341] F. Mukhamedov and J. F. Mendes. On the chaotic behavior of a generalized logistic p -adic dynamical system. *J. Differential Equations*, 2007. To appear.
- [342] F. Mukhamedov and U. Rozikov. On rational p -adic dynamical systems. *Methods Funct. Anal. Topology*, 10(2):21–31, 2004.
- [343] D. Mumford. *Abelian Varieties*. Tata Institute of Fundamental Research Studies in Mathematics, No. 5. Published for the Tata Institute of Fundamental Research, Bombay, 1970.
- [344] D. Mumford, J. Fogarty, and F. Kirwan. *Geometric Invariant Theory*, volume 34 of *Ergebnisse der Mathematik und ihrer Grenzgebiete (2) [Results in Mathematics and Related Areas (2)]*. Springer-Verlag, Berlin, third edition, 1994.
- [345] D. Mumford and K. Suominen. Introduction to the theory of moduli. In *Algebraic Geometry, Oslo 1970 (Proc. Fifth Nordic Summer-School in Math.)*, pages 171–222. Wolters-Noordhoff, Groningen, 1972.
- [346] M. R. Murty. *Problems in Analytic Number Theory*, volume 206 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 2001. Readings in Mathematics.
- [347] W. Narkiewicz. Polynomial cycles in algebraic number fields. *Colloq. Math.*, 58(1):151–155, 1989.
- [348] W. Narkiewicz. *Polynomial Mappings*, volume 1600 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1995.
- [349] W. Narkiewicz. Arithmetics of dynamical systems: a survey. *Tatra Mt. Math. Publ.*, 11:69–75, 1997. Number theory (Liptovský Ján, 1995).
- [350] W. Narkiewicz. Finite polynomial orbits. A survey. In *Algebraic Number Theory and Diophantine Analysis (Graz, 1998)*, pages 331–338. de Gruyter, Berlin, 2000.
- [351] W. Narkiewicz. Polynomial cycles in certain rings of rationals. *J. Théor. Nombres Bordeaux*, 14(2):529–552, 2002.
- [352] W. Narkiewicz. Polynomial cycles in cubic fields of negative discriminant. *Funct. Approx. Comment. Math.*, 35:261–270, 2006.
- [353] W. Narkiewicz and R. Marszalek. Finite polynomial orbits in quadratic rings. *J. Ramanujan Math. Soc.*, 12(1):91–130, 2006.
- [354] W. Narkiewicz and T. Pezda. Finite polynomial orbits in finitely generated domains. *Monatsh. Math.*, 124(4):309–316, 1997.
- [355] A. Néron. Quasi-fonctions et hauteurs sur les variétés abéliennes. *Ann. of Math. (2)*, 82:249–331, 1965.
- [356] M. Nevins and T. Rogers. Quadratic maps as dynamical systems on the p -adic numbers. unpublished, www.maths.ex.ac.uk/~mwatkins/zeta/nevins.pdf, March 2000.

- [357] P. E. Newstead. *Introduction to Moduli Problems and Orbit Spaces*, volume 51 of *Tata Institute of Fundamental Research Lectures on Mathematics and Physics*. Tata Institute of Fundamental Research, Bombay, 1978.
- [358] H. Niederreiter and I. E. Shparlinski. Dynamical systems generated by rational functions. In *Applied Algebra, Algebraic Algorithms and Error-Correcting Codes (Toulouse, 2003)*, volume 2643 of *Lecture Notes in Comput. Sci.*, pages 6–17. Springer, Berlin, 2003.
- [359] M. Nilsson. Cycles of monomial and perturbed monomial p -adic dynamical systems. *Ann. Math. Blaise Pascal*, 7(1):37–63, 2000.
- [360] M. Nilsson. Distribution of cycles of monomial p -adic dynamical systems. In *p -adic Functional Analysis (Ioannina, 2000)*, volume 222 of *Lecture Notes in Pure and Appl. Math.*, pages 233–242. Dekker, New York, 2001.
- [361] M. Nilsson. Fuzzy cycles of p -adic monomial dynamical systems. *Far East J. Dyn. Syst.*, 5(2):149–173, 2003.
- [362] M. Nilsson and R. Nyqvist. The asymptotic number of periodic points of discrete p -adic dynamical systems. *Tr. Mat. Inst. Steklova*, 245(Izbr. Vopr. p -adich. Mat. Fiz. i Anal.):210–217, 2004.
- [363] K. Nishizawa, K. Sekiguchi, and K. Yoshino. Location of algebraic integers and related topics. In *Dynamical Systems and Related Topics (Nagoya, 1990)*, volume 9 of *Adv. Ser. Dyn. Syst.*, pages 422–450. World Sci. Publishing, 1991.
- [364] I. Niven. The iteration of certain arithmetic functions. *Canadian J. Math.*, 2:406–408, 1950.
- [365] D. G. Northcott. Periodic points on an algebraic variety. *Ann. of Math. (2)*, 51:167–177, 1950.
- [366] R. Nyqvist. Some dynamical systems in finite field extensions of the p -adic numbers. In *p -adic functional analysis (Ioannina, 2000)*, volume 222 of *Lecture Notes in Pure and Appl. Math.*, pages 243–253. Dekker, New York, 2001.
- [367] R. W. K. Odoni. The Galois theory of iterates and composites of polynomials. *Proc. London Math. Soc. (3)*, 51(3):385–414, 1985.
- [368] R. W. K. Odoni. Realising wreath products of cyclic groups as Galois groups. *Mathematika*, 35(1):101–113, 1988.
- [369] R. W. K. Odoni. On the Galois groups of iterated generic additive polynomials. *Math. Proc. Cambridge Philos. Soc.*, 121(1):1–6, 1997.
- [370] R. Oselies and H. Zieschang. Ergodische Eigenschaften der Automorphismen p -adischer Zahlen. *Arch. Math. (Basel)*, 26:144–153, 1975.
- [371] A. Pal. On the torsion of Drinfeld modules of rank two, 2007. Preprint.
- [372] A. Peinado, F. Montoya, J. Muñoz, and A. J. Yuste. Maximal periods of $x^2 + c$ in \mathbb{F}_q . In *Applied Algebra, Algebraic Algorithms and Error-Correcting Codes (Melbourne, 2001)*, volume 2227 of *Lecture Notes in Comput. Sci.*, pages 219–228. Springer, Berlin, 2001.
- [373] I. Percival and F. Vivaldi. Arithmetical properties of strongly chaotic motions. *Phys. D*, 25(1-3):105–130, 1987.
- [374] J. Pettigrew, J. A. G. Roberts, and F. Vivaldi. Complexity of regular invertible p -adic motions. *Chaos*, 11(4):849–857, 2001.
- [375] T. Pezda. Cycles of polynomial mappings in several variables. *Manuscripta Math.*, 83(3-4):279–289, 1994.

- [376] T. Pezda. Cycles of polynomials in algebraically closed fields of positive characteristic. *Colloq. Math.*, 67(2):187–195, 1994.
- [377] T. Pezda. Polynomial cycles in certain local domains. *Acta Arith.*, 66(1):11–22, 1994.
- [378] T. Pezda. Cycles of polynomials in algebraically closed fields of positive characteristic. II. *Colloq. Math.*, 71(1):23–30, 1996.
- [379] T. Pezda. Cycles of rational mappings in algebraically closed fields of positive characteristics. *Ann. Math. Sil.*, 12:15–21, 1998. Number theory (Cieszyn, 1998).
- [380] T. Pezda. On cycles and orbits of polynomial mappings $\mathbb{Z}^2 \mapsto \mathbb{Z}^2$. *Acta Math. Inform. Univ. Ostraviensis*, 10(1):95–102, 2002.
- [381] T. Pezda. Cycles of polynomial mappings in several variables over rings of integers in finite extensions of the rationals. *Acta Arith.*, 108(2):127–146, 2003.
- [382] J. Pineiro. Mahler formula on the projective n -space, 2006. ArXiv:math.NT/0610737.
- [383] J. Pineiro, L. Szpiro, and T. J. Tucker. Mahler measure for dynamical systems on \mathbb{P}^1 and intersection theory on a singular arithmetic surface. In *Geometric Methods In Algebra and Number Theory*, volume 235 of *Progr. Math.*, pages 219–250. Birkhäuser Boston, Boston, MA, 2005.
- [384] B. Poonen. The classification of rational preperiodic points of quadratic polynomials over \mathbb{Q} : a refined conjecture. *Math. Z.*, 228(1):11–29, 1998.
- [385] Y. Puri and T. Ward. Arithmetic and growth of periodic orbits. *J. Integer Seq.*, 4(2):Article 01.2.1, 18 pp. (electronic), 2001.
- [386] Y. Puri and T. Ward. A dynamical property unique to the Lucas sequence. *Fibonacci Quart.*, 39(5):398–402, 2001.
- [387] G. R. W. Quispel, J. A. G. Roberts, and C. J. Thompson. Integrable mappings and soliton equations. *Phys. Lett. A*, 126(7):419–421, 1988.
- [388] G. R. W. Quispel, J. A. G. Roberts, and C. J. Thompson. Integrable mappings and soliton equations. II. *Phys. D*, 34(1-2):183–192, 1989.
- [389] U. Rausch. On a theorem of Dobrowolski about the product of conjugate numbers. *Colloq. Math.*, 50(1):137–142, 1985.
- [390] M. Raynaud. Courbes sur une variété abélienne et points de torsion. *Invent. Math.*, 71(1):207–233, 1983.
- [391] M. Raynaud. Sous-variétés d’une variété abélienne et points de torsion. In *Arithmetic and Geometry, Vol. I*, volume 35 of *Progr. Math.*, pages 327–352. Birkhäuser Boston, Boston, MA, 1983.
- [392] M. Rees. A partial description of the parameter space of rational maps of degree two (1). *Acta Math.*, 168:11–87, 1992.
- [393] M. Rees. A partial description of the parameter space of rational maps of degree two (2). *Proc. London Math. Soc.*, 70:644–690, 1995.
- [394] J. F. Ritt. Periodic functions with a multiplication theorem. *Trans. Amer. Math. Soc.*, 23(1):16–25, 1922.
- [395] J. Rivera-Letelier. *Dynamique des fonctions rationnelles sur des corps locaux*. PhD thesis, Université de Paris XI, 2000.
- [396] J. Rivera-Letelier. Sur la structure des ensembles de Fatou p -adiques, 2002. ArXiv:math.DS/0412180.

- [397] J. Rivera-Letelier. Une caractérisation des fonctions holomorphes injectives en analyse ultramétrique. *C. R. Math. Acad. Sci. Paris*, 335(5):441–446, 2002.
- [398] J. Rivera-Letelier. Dynamique des fonctions rationnelles sur des corps locaux. *Astérisque*, (287):xv, 147–230, 2003. Geometric methods in dynamics. II.
- [399] J. Rivera-Letelier. Espace hyperbolique p -adique et dynamique des fonctions rationnelles. *Compositio Math.*, 138(2):199–231, 2003.
- [400] J. Rivera-Letelier. Points périodiques des fonctions rationnelles dans l’espace hyperbolique p -adique. *Comment. Math. Helv.*, 80(3):593–629, 2005.
- [401] J. Rivera-Letelier. Wild recurrent critical points. *J. London Math. Soc. (2)*, 72(2):305–326, 2005.
- [402] J. Rivera-Letelier. Notes sur la droite projective de Berkovich, 2006. ArXiv: math.MG/0605676.
- [403] J. Rivera-Letelier. Polynomials over \mathbb{C}_p with wandering domains, after R. Benedetto, 2006. Preprint, www.math.sunysb.edu/~rivera/mypapers/wand.ps.
- [404] J. Rivera-Letelier. Théorie de Fatou et Julia dans la droite projective de Berkovich, 2007. In preparation.
- [405] A. Robert. *Elliptic curves*. Springer-Verlag, Berlin, 1973.
- [406] J. A. G. Roberts and F. Vivaldi. Arithmetical method to detect integrability in maps. *Phys. Rev. Lett.*, 90(3):034102, 4, 2003.
- [407] J. A. G. Roberts and F. Vivaldi. Signature of time-reversal symmetry in polynomial automorphisms over finite fields. *Nonlinearity*, 18(5):2171–2192, 2005.
- [408] T. D. Rogers. The graph of the square mapping on the prime fields. *Discrete Math.*, 148(1-3):317–324, 1996.
- [409] M. Ru and E. Yi. Nevanlinna theory and iteration of rational maps. *Math. Z.*, 249(1):125–138, 2005.
- [410] W. Rudin. *Real and Complex Analysis*. McGraw-Hill Book Co., New York, third edition, 1987.
- [411] P. Russo and R. Walde. Rational periodic points of the quadratic function $Q_c(x) = x^2 + c$. *Am. Math. Monthly*, 101:318–331, 1994.
- [412] G. Sarkis. *Formal Groups and p -adic Dynamical Systems*. PhD thesis, Brown University, 2001.
- [413] G. Sarkis. On lifting commutative dynamical systems. *J. Algebra*, 293(1):130–154, 2005.
- [414] S. Schanuel. Heights in number fields. *Bull. Soc. Math. France*, 107:443–449, 1979.
- [415] D. Schleicher. *Internal addresses in the Mandelbrot set and irreducibility of polynomials*. PhD thesis, Cornell University, Ithaca NY, 1994.
- [416] K. Schmidt. *Dynamical Systems of Algebraic Origin*, volume 128 of *Progress in Mathematics*. Birkhäuser Verlag, Basel, 1995.
- [417] W. Schmidt. *Diophantine Approximation*, volume 785 of *Lecture Notes in Mathematics*. Springer, Berlin, 1980.
- [418] W. Schmidt and N. Steinmetz. The polynomials associated with a Julia set. *Bull. London Math. Soc.*, 27(3):239–241, 1995.
- [419] A. Schweizer. On periodic points under the iteration of additive polynomials. *Manuscripta Math.*, 113(1):25–34, 2004.

- [420] J.-P. Serre. *Local Fields*, volume 67 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1979. Translated from the French by Marvin Jay Greenberg.
- [421] J.-P. Serre. *Lectures on the Mordell-Weil Theorem*. Aspects of Mathematics. Friedr. Vieweg & Sohn, Braunschweig, third edition, 1997. Translated from the French and edited by Martin Brown from notes by Michel Waldschmidt, with a foreword by Brown and Serre.
- [422] G. Shimura. On the field of definition for a field of automorphic functions. I, II, III. *Ann. of Math. (2)*, 80, 81, 83:160–189, 124–165, 377–385, 1964, 1965, 1966.
- [423] G. Shimura. *Introduction to the Arithmetic Theory of Automorphic Functions*, volume 11 of *Publications of the Mathematical Society of Japan*. Princeton University Press, Princeton, NJ, 1994. Reprint of the 1971 original, Kanô Memorial Lectures, 1.
- [424] I. Shparlinski. On some dynamical systems in finite fields and residue rings. *Discrete Contin. Dyn. Syst.*, 17:901–917, 2007.
- [425] N. Sibony. Dynamique des applications rationnelles de \mathbb{P}^k . In *Dynamique et géométrie complexes (Lyon, 1997)*, volume 8 of *Panor. Synthèses*, pages ix–x, xi–xii, 97–185. Soc. Math. France, Paris, 1999.
- [426] N. Sidorov. Arithmetic dynamics. In *Topics in Dynamics and Ergodic Theory*, volume 310 of *London Math. Soc. Lecture Note Ser.*, pages 145–189. Cambridge Univ. Press, Cambridge, 2003.
- [427] C. Siegel. The integer solutions of the equation $y^2 = ax^n + bx^{n-1} + \dots + k$. *J. London Math. Soc.*, 1:66–68, 1926.
- [428] C. Siegel. Über einige Anwendungen diophantischer Approximationen. In *Collected Works*, pages 209–266. Springer, Berlin, 1966.
- [429] J. H. Silverman. Integer points on curves of genus 1. *J. London Math. Soc. (2)*, 28(1):1–7, 1983.
- [430] J. H. Silverman. Arithmetic distance functions and height functions in Diophantine geometry. *Math. Ann.*, 279(2):193–216, 1987.
- [431] J. H. Silverman. A quantitative version of Siegel’s theorem: integral points on elliptic curves and Catalan curves. *J. Reine Angew. Math.*, 378:60–100, 1987.
- [432] J. H. Silverman. Computing heights on elliptic curves. *Math. Comp.*, 51(183):339–358, 1988.
- [433] J. H. Silverman. Rational points on $K3$ surfaces: a new canonical height. *Invent. Math.*, 105(2):347–373, 1991.
- [434] J. H. Silverman. *The Arithmetic of Elliptic Curves*, volume 106 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1992. Corrected reprint of the 1986 original.
- [435] J. H. Silverman. Integer points, Diophantine approximation, and iteration of rational maps. *Duke Math. J.*, 71(3):793–829, 1993.
- [436] J. H. Silverman. *Advanced Topics in the Arithmetic of Elliptic Curves*, volume 151 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1994.
- [437] J. H. Silverman. Geometric and arithmetic properties of the Hénon map. *Math. Z.*, 215(2):237–250, 1994.
- [438] J. H. Silverman. The field of definition for dynamical systems on \mathbb{P}^1 . *Compositio Math.*, 98(3):269–304, 1995.

- [439] J. H. Silverman. Rational functions with a polynomial iterate. *J. Algebra*, 180(1):102–110, 1996.
- [440] J. H. Silverman. The space of rational maps on \mathbb{P}^1 . *Duke Math. J.*, 94(1):41–77, 1998.
- [441] J. H. Silverman. A zeta function over a recurrent sequence. *Amer. Math. Monthly*, 106(7):686–688, 1999. Problem 10486 with solutions.
- [442] J. H. Silverman. Height bounds and preperiodic points for families of jointly regular affine maps. *Quart. J. Pure Appl. Math.*, 2:135–145, 2006.
- [443] J. H. Silverman and N. Stephens. The sign of an elliptic divisibility sequence. *J. Ramanujan Math. Soc.*, 21(1):1–17, 2006.
- [444] J. H. Silverman and J. Tate. *Rational Points on Elliptic Curves*. Undergraduate Texts in Mathematics. Springer-Verlag, New York, 1992.
- [445] C. J. Smyth. On the product of the conjugates outside the unit circle of an algebraic integer. *Bull. London Math. Soc.*, 3:169–175, 1971.
- [446] C. J. Smyth. The Mahler measure of algebraic numbers: A survey. In *Number theory and polynomials (Univ. Bristol April 2006)*, LMS Lecture Notes. London Mathematical Society, 2007. ArXiv:math.NT/0701397.
- [447] A. N. Starkov. *Dynamical systems on homogeneous spaces*, volume 190 of *Translations of Mathematical Monographs*. American Mathematical Society, Providence, RI, 2000. Translated from the 1999 Russian original by the author.
- [448] W. Steiner, S. Akiyama, H. Brunotte, and A. Petho. Periodicity of certain piecewise affine planar maps, 2007. arxiv.org/abs/0704.3674v1.
- [449] C. L. Stewart. Algebraic integers whose conjugates lie near the unit circle. *Bull. Soc. Math. France*, 106(2):169–176, 1978.
- [450] M. Stoll. Galois groups over \mathbb{Q} of some iterated polynomials. *Arch. Math. (Basel)*, 59(3):239–244, 1992.
- [451] D. Sullivan. Quasiconformal homeomorphisms and dynamics. I. Solution of the Fatou-Julia problem on wandering domains. *Ann. of Math. (2)*, 122(3):401–418, 1985.
- [452] P.-A. Svensson. Perturbed dynamical systems in p -adic fields. *Tr. Mat. Inst. Steklova*, 245(Izbr. Vopr. p -adich. Mat. Fiz. i Anal.):264–272, 2004.
- [453] J. J. Sylvester. On a point in the theory of vulgar fractions. *Amer. J. Math.*, 3(4):332–335, 1880.
- [454] L. Szpiro and T. Tucker. Equidistribution and generalized Mahler measures, 2006. ArXiv:math.NT/0510404.
- [455] L. Szpiro and T. Tucker. One half log discriminant, 2006. Diophantine Geometry Proceedings, Publications of the Scuola Normale Superiore de Pisa, ArXiv:math.NT/0510404.
- [456] L. Szpiro and T. Tucker. A Shafarevich-Faltings theorem for rational functions. *Pure Appl. Math. Q.*, 2:37–48, 2006.
- [457] L. Szpiro, E. Ullmo, and S. Zhang. Équirépartition des petits points. *Invent. Math.*, 127(2):337–347, 1997.
- [458] E. Thiran, D. Versteegen, and J. Weyers. p -adic dynamics. *J. Statist. Phys.*, 54(3-4):893–913, 1989.
- [459] A. Thuillier. *Théorie du potentiel sur les courbes en géométrie analytique non archimédienne. Applications à la théorie d’Arakelov*. PhD thesis, Université Rennes, 2005.

- [460] E. Ullmo. Positivité et discrétion des points algébriques des courbes. *Ann. of Math. (2)*, 147(1):167–179, 1998.
- [461] B. van der Waerden. *Algebra*. Frederick Ungar Publ. Co., New York, 7th edition, 1970.
- [462] T. Vasiga and J. Shallit. On the iteration of certain quadratic maps over $\text{GF}(p)$. *Discrete Math.*, 277(1-3):219–240, 2004.
- [463] D. Verstegen. p -adic dynamical systems. In *Number Theory and Physics (Les Houches, 1989)*, volume 47 of *Springer Proc. Phys.*, pages 235–242. Springer, Berlin, 1990.
- [464] A. P. Veselov. Integrable mappings. *Uspekhi Mat. Nauk*, 46(5(281)):3–45, 190, 1991.
- [465] F. Vivaldi. The arithmetic of chaos. In *Chaos, Noise and Fractals (Como, 1986)*, volume 3 of *Malvern Phys. Ser.*, pages 187–199. Hilger, Bristol, 1987.
- [466] F. Vivaldi. Arithmetical theory of Anosov diffeomorphisms. *Proc. Roy. Soc. London Ser. A*, 413(1844):97–107, 1987.
- [467] F. Vivaldi. Algebraic number theory and Hamiltonian chaos. In *Number Theory and Physics (Les Houches, 1989)*, volume 47 of *Springer Proc. Phys.*, pages 294–301. Springer, Berlin, 1990.
- [468] F. Vivaldi. Dynamics over irreducible polynomials. *Nonlinearity*, 5(4):941–960, 1992.
- [469] F. Vivaldi. Geometry of linear maps over finite fields. *Nonlinearity*, 5(1):133–147, 1992.
- [470] P. Voutier. An effective lower bound for the height of algebraic numbers. *Acta Arith.*, 74(1):81–95, 1996.
- [471] M. Waldschmidt. Algebraic dynamics and transcendental numbers. In *Noise, oscillators and algebraic randomness (Chapelle des Bois, 1999)*, volume 550 of *Lecture Notes in Phys.*, pages 372–378. Springer, Berlin, 2000.
- [472] L. Wang. Rational points and canonical heights on K^3 -surfaces in $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$. In *Recent Developments in the Inverse Galois Problem (Seattle, WA, 1993)*, volume 186 of *Contemp. Math.*, pages 273–289. Amer. Math. Soc., Providence, RI, 1995.
- [473] T. B. Ward. Almost all S -integer dynamical systems have many periodic points. *Ergodic Theory Dynam. Systems*, 18(2), 1998.
- [474] L. C. Washington. *Introduction to cyclotomic fields*, volume 83 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, 1997.
- [475] J. Wehler. K^3 -surfaces with Picard number 2. *Arch. Math. (Basel)*, 50(1):73–82, 1988.
- [476] G. J. Wirsching. *The dynamical system generated by the $3n+1$ function*, volume 1681 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, 1998.
- [477] C. F. Woodcock and N. P. Smart. p -adic chaos and random number generation. *Experiment. Math.*, 7(4):333–342, 1998.
- [478] X. Yuan. Big line bundles over arithmetic varieties, 2006. [ArXiv:math.NT/0612424](https://arxiv.org/abs/math.NT/0612424).
- [479] D. Zagier. On the number of Markoff numbers below a given bound. *Math. Comp.*, 39(160):709–723, 1982.

- [480] S.-W. Zhang. Equidistribution of small points on abelian varieties. *Ann. of Math.* (2), 147(1):159–165, 1998.
- [481] S.-W. Zhang. Distributions in algebraic dynamics. In *Differential Geometry: A Tribute to Professor S.-S. Chern, Surv. Differ. Geom., Vol. X*, pages 381–430. Int. Press, Boston, MA, 2006.
- [482] M. Zieve. *Cycles of Polynomial Mappings*. PhD thesis, University of California at Berkeley, 1996.
- [483] K. Zimmerman. Commuting polynomials and self-similarity. *New York J. Math.*, 13:89–96 (electronic), 2007.