

## Bibliography

- [Abr-Ste] M. Abramowitz and I. Stegun, *Handbook of mathematical functions*, Dover publications (1972).
- [AGP] R. Alford, A. Granville and C. Pomerance, *There are infinitely many Carmichael numbers*, Ann. of Math. **139** (1994), 703–722.
- [Ami] Y. Amice, *Les nombres  $p$ -adiques*, SUP/Le Mathématicien **14**, Presses Universitaires de France (1975).
- [Ang] W. Anglin, *The square pyramid puzzle*, American Math. Monthly **97** (1990), 120–124.
- [Ax] J. Ax, *Zeroes of polynomials over finite fields*, Amer. J. Math. **86** (1964), 255–261.
- [Bac] G. Bachman, *Introduction to  $p$ -adic numbers and valuation theory*, Academic paperbacks, Acad. Press (1964).
- [Bak1] A. Baker, *Linear forms in the logarithms of algebraic numbers*, Mathematika **13** (1966), 204–216.
- [Bak2] A. Baker, *Transcendental Number Theory*, Cambridge University Press, 1975.
- [Bak-Dav] A. Baker and H. Davenport, *The equations  $3x^2 - 2 = y^2$  and  $8x^2 - 7 = y^2$* , Quart. J. Math. Oxford Ser. (2) **20** (1969), 129–137.
- [Bak-Wus] A. Baker and G. Wüstholz, *Logarithmic forms and group varieties*, J. reine angew. Math. **442** (1993), 19–62.
- [Bat-Oli] C. Batut and M. Olivier, ...XXX, Séminaire Th. Nombres Bordeaux (19XX),....
- [Bel-Gan] K. Belabas and H. Gangl, *Generators and relations for  $K_2\mathcal{O}F$* , K-Theory **31** (2004), 195–231.
- [BBGMS] C. Bennett, J. Blass, A. Glass, D. Meronk, and R. Steiner, *Linear forms in the logarithms of three positive rational numbers*, J. Théor. Nombres Bordeaux **9** (1997), 97–136.
- [Ben1] M. Bennett, *Rational approximation to algebraic numbers of small height: The Diophantine equation  $|ax^n - by^n| = 1$* , J. reine angew. Math. **535** (2001), 1–49.
- [Ben2] M. Bennett, *Recipes for ternary Diophantine equations of signature  $(p, p, k)$* , Proc. RIMS Kokyuroku (Kyoto) **1319** (2003), 51–55.
- [Ben3] M. Bennett, *On some exponential Diophantine equations of S. S. Pillai*, Canad. J. Math. **XX** (200X), XXX–XXX.
- [Ben-deW] M. Bennett and B. de Weger, *The Diophantine equation  $|ax^n - by^n| = 1$* , Math. Comp. **67** (1998), 413–438.
- [Ben-Ski] M. Bennett and C. Skinner, *Ternary Diophantine equations via Galois representations and modular forms*, Canad. J. Math. **56** (2004), 23–54.
- [Ben-Vat-Yaz] M. Bennett, V. Vatsal, and S. Yazdani, *Ternary Diophantine equations of signature  $(p, p, 3)$* , Compositio Math. **140** (2004), 1399–1416.

- [Ber-Eva-Wil] B. Berndt, R. Evans, and K. Williams, *Gauss and Jacobi Sums*, Canadian Math. Soc. series **21**, Wiley (1998).
- [Bha-Han] M. Bhargava and J. Hanke, *Universal quadratic forms and the 290-theorem*, Invent. Math., to appear.
- [Bilu] Yu. Bilu, *Catalan's conjecture (after Mihailescu)*, Séminaire Bourbaki **909** (2002–2003), 1–25.
- [Bil-Han] Yu. Bilu and G. Hanrot, *Solving Thue equations of high degree*, J. Number Th. **60** (1996), 373–392.
- [Bil-Han-Vou] Yu. Bilu, G. Hanrot, and P. Voutier, *Existence of primitive divisors of Lucas and Lehmer numbers*, with an appendix by M. Mignotte, J. reine angew. Math. **539** (2001), 75–122.
- [Bom] E. Bombieri, *Effective Diophantine approximation on  $\mathbf{G}_m$* , Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4) **20** (1993), 61–89.
- [Bor-Bai] J. Borwein and D. Bailey, *Mathematics by Experiment*, A. K. Peters (2004).
- [Bor-Bai-Gir] J. Borwein, D. Bailey and R. Girgensohn, *Experimentation in Mathematics*, A. K. Peters (2004).
- [Bor-Sha] Z. I. Borevich and I. R. Shafarevich, *Number Theory*, Academic Press, New York (1966).
- [Bre-Cas] A. Bremner and I. Cassels, *On the equation  $Y^2 = X(X^2 + p)$* , Math. Comp. **42** (1984), 257–264.
- [Bre-Mor] A. Bremner and P. Morton, *A new characterization of the integer 5906*, Manuscripta Math. **44** (1983), 187–229.
- [Bre-Tza1] A. Bremner and N. Tzanakis, *Lucas sequences whose 12th or 9th term is a square*, J. Number Th. **107** (2004), 215–227.
- [Bre-Tza2] A. Bremner and N. Tzanakis, *Lucas sequences whose 8th term is a square*, preprint.
- [Bri-Eve-Gyo] B. Brindza, J. Evertse, and K. Győry, *Bounds for the solutions of some Diophantine equations in terms of discriminants*, J. Austral. Math. Soc. (Series A) **51** (1991), 8–26.
- [BCDT] C. Breuil, B. Conrad, F. Diamond, and R. Taylor, *On the modularity of elliptic curves over  $\mathbb{Q}$ : wild 3-adic exercises*, J. Amer. Math. Soc. **14** (2001), 843–939.
- [Bru1] N. Bruin, *Chabauty methods and covering techniques applied to generalized Fermat equations*, CWI Tract **133**, CWI, Amsterdam (2002).
- [Bru2] N. Bruin,
- [Bru-Kra] A. Brumer and K. Kramer, *The rank of elliptic curves*, Duke Math. J. **44** (1977), 715–742.
- [Bug] Y. Bugeaud, *Bounds for the solutions of superelliptic equations*, Compositio Math. **107** (1997), 187–219.
- [Bug-Gyo] Y. Bugeaud and K. Győry, *Bounds for the solutions of Thue–Mahler equations and norm form equations*, Acta Arith. **74** (1996), 273–292.
- [Bug-Han] Y. Bugeaud and G. Hanrot, *Un nouveau critère pour l'équation de Catalan*, Mathematika **47** (2000), 63–73.
- [Bug-Mig] Y. Bugeaud and M. Mignotte, *On integers with identical digits*, Mathematika **46** (1999), 411–417.
- [BMS1] Y. Bugeaud, M. Mignotte, and S. Siksek, *Classical and modular approaches to exponential Diophantine equations I. Fibonacci and Lucas perfect powers*, Annals of Math., to appear.
- [BMS2] Y. Bugeaud, M. Mignotte, and S. Siksek, *Classical and modular approaches to exponential Diophantine equations II. The Lebesgue–Nagell equation*, Compositio Math., to appear.

- [BMS3] Y. Bugeaud, M. Mignotte, and S. Siksek, *A Multi-Frey Approach to some Multi-Parameter Families of Diophantine Equations*, submitted.
- [Cal] E. Cali, *Points de torsion des courbes elliptiques et quartiques de Fermat*, Thesis, Univ. Paris VI (2005).
- [Can] D. Cantor, *Computing on the jacobian of a hyperelliptic curve*, Math. Comp., **48** (1987), 95–101.
- [Cas1] J. Cassels, *Local Fields*, London Math. Soc. Student Texts **3**, Cambridge University Press (1986).
- [Cas2] J. Cassels, *Lectures on Elliptic Curves*, London Math. Soc. Student Texts **24**, Cambridge University Press (1991).
- [Cas3] J. Cassels, *On the equation  $a^x - b^y = 1$ , II*, Proc. Cambridge Phil. Soc. **56** (1960), 97–103.
- [Cas-Fly] J. Cassels and V. Flynn, *Prolegomena to a middlebrow Arithmetic of Curves of Genus 2*, LMS Lecture Note Series **230**, Cambridge University Press (1996).
- [Cas-Frö] J. Cassels and A. Fröhlich, *Algebraic Number Theory*, Academic Press, London, New York (1967).
- [Cat] E. Catalan, *Note extraite d'une lettre adressée à l'éditeur*, J. reine angew. Math. **27**, (1844), 192.
- [Cha] C. Chabauty, *Sur les points rationnels des variétés algébriques dont l'irrégularité est supérieure à la dimension*, C. R. A. S. Paris, **212** (1941), 1022–1024.
- [Coa-Wil] J. Coates and A. Wiles, *On the conjecture of Birch and Swinnerton-Dyer*, Invent. Math. **39** (1977), 223–251.
- [Coh0] H. Cohen, *A Course in Computational Algebraic Number Theory (4th corrected printing)*, Graduate Texts in Math. **138**, Springer-Verlag (2000).
- [Coh1] H. Cohen, *Advanced Topics in Computational Number Theory*, Graduate Texts in Math. **193**, Springer-Verlag (2000).
- [Coh2] H. Cohen, *Variations sur un thème de Siegel et Hecke*, Acta Arith. **30** (1976), 63–93.
- [Coh3] H. Cohen, *Sums involving L-functions of quadratic characters*, Math. Ann. **217** (1975), 271–285.
- [Coh4] H. Cohen, *Continued fractions for gamma products and  $\zeta(k)$* , unfinished postscript preprint available on the author's home page at <http://www.math.u-bordeaux1.fr/~cohen/>.
- [Coh-Fre] H. Cohen and G. Frey, eds., *Handbook of elliptic and hyperelliptic curve cryptography*, Chapman & Hall/CRC press, 2005.
- [Coh-Rhi] H. Cohen and G. Rhin, ...XXX, Séminaire Th. Nombres Bordeaux (19XX), ...
- [Coh-Vil-Zag] H. Cohen, F. Rodriguez-Villegas and D. Zagier, *Convergence acceleration of alternating series*, Exp. Math. **9** (2000), 3–12.
- [Cohn1] J. Cohn, *The Diophantine equation  $x^2 + C = y^n$* , Acta Arith. **65** (1993), 367–381.
- [Cohn2] J. Cohn, *The Diophantine equation  $x^2 + C = y^n$ , II*, Acta Arith. **109** (2003), 205–206.
- [Col] R. Coleman, *Effective Chabauty*, Duke Math. J., **52** (1985), 765–780.
- [Colm] P. Colmez, *La fonction zêta, ...*
- [Con-Sou] J. B. Conrey and K. Soundararajan, *Real zeros of quadratic Dirichlet L-functions*, Invent. Math. **150** (2002), 1–44.
- [Con] J.-H. Conway, *The sensual (quadratic) form*, Carus Math. Monographs **26**, MAA (1997).

- [Con-Slo] J.-H. Conway and N. Sloane, *Sphere packings, lattices and groups* (3rd ed.), Grundlehren der math. Wiss. **290**, Springer-Verlag, New York (1999).
- [Cre1] J. Cremona, *Computing the degree of the modular parametrization of a modular elliptic curve*, Math. Comp. **64** (1995), 1235–1250.
- [Cre2] J. Cremona, *Algorithms for Modular Elliptic Curves* (2nd ed.), Cambridge Univ. Press (1996).
- [Cre-Pri-Sik] J. Cremona, M. Prickett, and S. Siksek, *Height difference bounds for elliptic curves over number fields*, J. Number theory, to appear.
- [Dar] H. Darmon, *Rational points on modular elliptic curves*, CBMS Regional Conference Series in Mathematics **101** (2004), American Math. Soc.
- [Dar-Gra] H. Darmon and A. Granville, *On the equations  $z^m = F(x, y)$  and  $Ax^p + By^q = Cz^r$* , Bull. London Math. Soc. **27** (1995), 513–543.
- [Dar-Mer] H. Darmon and L. Merel, *Winding quotients and some variants of Fermat's Last Theorem*, J. reine angew. Math. **490** (1997), 81–100.
- [Dem1] V. Dem'janenko, *О Суммах четырех кубов (On sums of four cubes)*, Izv. Visch. Outch. Zaved. Matematika **54** (1966), 64–69.
- [Dem2] V. Dem'janenko, *Rational points on a class of algebraic curves*, Amer. Math. Soc. Transl. **66** (1968), 246–272.
- [Dem3] V. Dem'janenko, *The indeterminate equations  $x^6 + y^6 = az^2$ ,  $x^6 + y^6 = az^3$ ,  $x^4 + y^4 = az^4$* , Amer. Math. Soc. Transl. **119** (1983), 27–34.
- [Den] P. Dénés, *Über die Diophantische Gleichung  $x^\ell + y^\ell = cz^\ell$* , Acta Math. **88** (1952), 241–251.
- [DeW1] B. de Weger, *Solving exponential diophantine equations using lattice basis reduction algorithms*, J. Number Th. **26** (1987), 325–367.
- [DeW2] B. de Weger, *A hyperelliptic Diophantine equation related to imaginary quadratic number fields with class number 2*, J. reine angew. Math. **427** (1992), 137–156.
- [Dia1] J. Diamond, *The  $p$ -adic log gamma function and  $p$ -adic Euler constants*, Trans. Amer. Math. Soc. **233** (1977), 321–337.
- [Dia2] J. Diamond, *On the values of  $p$ -adic  $L$ -functions at positive integers*, Acta Arith. **35** (1979), 223–237.
- [Dia-Kra] F. Diamond and K. Kramer, *Modularity of a family of elliptic curves*, Math. Res. Lett. **2** (1995), No. 3, 299–304.
- [Dok] T. Dokchitser, *Computing special values of motivic  $L$ -functions*, Exp. Math., to appear.
- [Duq1] S. Duquesne, *Rational Points on Hyperelliptic Curves and an Explicit Weierstrass Preparation Theorem*, Manuscripta Math. **108:2** (2002), 191–204.
- [Duq2] S. Duquesne, *Calculs effectifs des points entiers et rationnels sur les courbes*, Thesis, Univ. Bordeaux I (2001).
- [Edw] J. Edwards, *Platonic solids and solutions to  $x^2 + y^3 = dz^r$* , Thesis, Univ. Utrecht (2005).
- [Elk] N. Elkies,  *$ABC$  implies Mordell*, Internat. Math. Res. Notices **7** (1991), 99–109.
- [Ell] W. Ellison and M. Mendès France, *Les nombres premiers*, Hermann (1975).
- [Erd-Wag] P. Erdős and S. Wagstaff, *The fractional parts of the Bernoulli numbers*, Illinois J. Math. **24** (1980), 104–112.
- [Eva] R. Evans, *Congruences for Jacobi sums*, J. Number Theory **71** (1998), 109–120.

- [Fal] G. Faltings, *Endlichkeitssätze für abelsche Varietäten über Zahlkörpern*, Invent. Math. **73** (1983), 349–366.
- [Fly] V. Flynn, *A flexible method for applying Chabauty's Theorem*, Compositio Math. **105** (1997), 79–94.
- [Fly-Wet1] V. Flynn and J. Wetherell, *Finding rational points on bielliptic genus 2 curves*, Manuscripta Math. **100** (1999), 519–533.
- [Fly-Wet2] V. Flynn and J. Wetherell, *Covering Collections and a Challenge Problem of Serre*, Acta Arith. **98** (2001), 197–205.
- [Fre] E. Freitag, *Hilbert modular forms*, Springer-Verlag (1990).
- [Frö-Tay] A. Fröhlich and M. Taylor, *Algebraic number theory*, Cambridge Studies in Adv. Math. **27**, Cambridge Univ. Press (1991).
- [Gel] A. O. Gel'fond, *On the approximation of transcendental numbers by algebraic numbers*, Doklady Akad. Nauk SSSR **2** (1935), 177–182.
- [Gou] F. Gouvêa,  *$p$ -adic numbers: an introduction*, Universitext, Springer-Verlag (1993).
- [Gran] D. Grant, *A curve for which Coleman's effective Chabauty bound is sharp*, Proc. Amer. Math. Soc. **122** (1994), 317–319.
- [Gras] G. Gras, *Class field theory, from theory to practice*, Springer monographs in mathematics (2003).
- [Gre-Tao] B. Green and T. Tao, *The primes contain arbitrarily long arithmetic progressions*, preprint, April 8, 2004.
- [Gri-Riz] G. Grigorov and J. Rizov, *Heights on elliptic curves and the Diophantine equation  $x^4 + y^4 = cz^4$* , Sophia Univ. preprint (1998).
- [Gro] B. Gross, *Heegner points on  $X_0(N)$* , in Modular forms, edited by R. Rankin (1984), 87–105.
- [GBZ] B. Gross, J. Buhler and D. Zagier, XXX
- [Gro-Kob] B. Gross and N. Koblitz, *Gauss sums and the  $p$ -adic  $\Gamma$ -function*, Ann. Math. **109** (1979), 569–581.
- [Guy] R. K. Guy, *Unsolved problems in number theory (3rd edition)*, Problem books in math. **1**, Springer-Verlag (2004).
- [Hal-Kra1] E. Halberstadt and A. Kraus, *Sur les modules de torsion des courbes elliptiques*, Math. Ann. **310** (1998), 47–54.
- [Hal-Kra2] E. Halberstadt and A. Kraus, *Courbes de Fermat : résultats et problèmes*, J. reine angew. Math. **548** (2002), 167–234.
- [Har-Wri] G. H. Hardy and E. M. Wright, *An Introduction to the Theory of Numbers (5th ed.)*, Oxford University Press (1979).
- [Hay] Y. Hayashi, *The Rankin's  $L$ -function and Heegner points for general discriminants*, Proc. Japan. Acad. **71** (1995), 30–32.
- [Her] G. Herglotz, *Über die Kroneckersche Grenzformel für reelle quadratische Körper I, II*, Gesam. Schr. (Ed. H. Schwerdtfeger), Vandenhoeck and Ruprecht (1979), 466–484.
- [Ire-Ros] K. Ireland and M. Rosen, *A classical introduction to modern number theory (2nd ed.)*, Graduate Texts in Math. **84**, Springer-Verlag (1982).
- [Ivo1] W. Ivorra, *Sur les équations  $x^p + 2^\beta y^p = z^2$  et  $x^p + 2^\beta y^p = 2z^2$* , Acta Arith. **108** (2003), 327–338.
- [Ivo2] W. Ivorra, *Equations diophantiennes ternaires de type  $(p, p, 2)$  et courbes elliptiques*, Thesis, Univ. Paris VI (2004).
- [Ivo-Kra] W. Ivorra and A. Kraus, *Quelques résultats sur les équations  $ax^p + by^p = cz^2$* , Can. J. Math., to appear.
- [Iwa-Kow] H. Iwaniec and E. Kowalski, *Analytic number theory*, Colloquium Publications **53**, American Math. Soc. (2004).

- [Jan] G. Janusz, *Algebraic number fields*, Pure and applied math. **55**, Academic Press (1973).
- [Kap] I. Kaplansky, *Ternary positive quadratic forms that represent all odd positive integers*, Acta Arith. **70** (1995), 209–214.
- [Kat] N. Katz, *On a theorem of Ax*, Amer. J. Math. **93** (1971), 485–499.
- [Kea-Sna] J. Keating and X. Snaith, XXX
- [Kel-Ric] W. Keller and J. Richstein, *Solutions of the congruence  $a^{p-1} \equiv 1 \pmod{p^r}$* , Math. Comp. **74** (2005), 927–936.
- [Kna] A. Knapp, *Elliptic curves*, Math. Notes **40**, Princeton University press (1992)
- [Ko] Ko Chao, *On the diophantine equation  $x^2 = y^n + 1$ ,  $xy \neq 0$* , Sci. Sinica **14** (1965), 457–460.
- [Kob1] N. Koblitz,  *$p$ -adic numbers,  $p$ -adic analysis, and zeta-functions (2nd edition)*, Graduate Texts in Math. **58**, Springer-Verlag (1984).
- [Kob2] N. Koblitz, *An introduction to elliptic curves and modular forms (2nd edition)*, Graduate Texts in Math. **97**, Springer-Verlag (1993).
- [Kra1] A. Kraus, *Sur l'équation  $a^3 + b^3 = c^p$* , Experimental Math. **7** (1998), 1–13.
- [Kra2] A. Kraus, *On the equation  $x^p + y^q = z^r$ : a survey*, Ramanujan Journal **3** (1999), 315–333.
- [Kra3] A. Kraus, *Majorations effectives pour l'équation de Fermat généralisée*, Can. J. Math. **49** (1997), 1139–1161.
- [Kra-Oes] A. Kraus and J. Oesterlé, *Sur une question de B. Mazur*, Math. Ann. **293** (1992), 259–275.
- [Kul] L. Kulesz, *Application de la méthode de Dem'janenko-Manin à certaines familles de courbes de genre 2 et 3*, J. Number Theory **76** (1999), 130–146.
- [Lan0] S. Lang, *Algebra*, Addison-Wesley, Reading, MA (1965).
- [Lan1] S. Lang, *Algebraic number theory (2nd ed.)*, Graduate Texts in Math. **110**, Springer-Verlag (1994).
- [Lau] M. Laurent, *Linear form in two logarithms and interpolation determinants*, Acta Arith. **66** (1994), 181–199.
- [Lau-Mig-Nes] M. Laurent, M. Mignotte, and Yu. Nesterenko, *Formes linéaires en deux logarithmes et déterminants d'interpolation*, J. Number Theory **55** (1995), 255–265.
- [Leb] V. Lebesgue, *Sur l'impossibilité en nombres entiers de l'équation  $x^m = y^2 + 1$* , Nouv. Ann. Math. **9** (1850), 178–181.
- [Lem] F. Lemmermeyer, *Kronecker-Weber via Stickelberger*, preprint.
- [Ma] D.-G. Ma, *An elementary proof of the solution to the Diophantine equation  $6y^2 = x(x+1)(2x+1)$* , Sichuan Daxue Xuebao **4** (1985) 107–116.
- [Man] Yu. Manin, *The  $p$ -torsion of elliptic curves is uniformly bounded*, Izv. Akad. Nauk SSSR Ser. Mat. **33** (1969), 459–465; Amer. Math. Soc. Transl. 433–438.
- [Marc] D. A. Marcus, *Number fields*, Springer-Verlag, New York (1977).
- [Mart] G. Martin, J. Number Theory, to appear.XXX
- [Mar] J. Martinet, *Perfect lattices in Euclidean spaces*, Grundlehren der math. Wiss. **327**, Springer (2003).
- [Mat] E. M. Matveev, *An explicit lower bound for a homogeneous rational linear form in logarithms of algebraic numbers. II*, Izv. Ross. Akad. Nauk Ser. Mat. **64** (2000), 125–180. English transl. in Izv. Math. **64** (2000), 1217–1269.

- [Maz] B. Mazur, *Rational isogenies of prime degree*, Invent. Math. **44** (1978), 129–162.
- [McC] W. McCallum, *On the method of Coleman and Chabauty*, Math. Ann. **299** (1994), 565–596.
- [Mar-McM] R. Martin and W. McMillen, *An elliptic curve over  $\mathbb{Q}$  with rank at least 24*, Internet announcement on the number theory listserver (2000).
- [Mes-Oes] J.-F. Mestre and J. Oesterlé, *Courbes de Weil semi-stables de discriminant une puissance  $m$ -ième*, J. reine angew. Math. **400** (1989), 173–184.
- [Mig] M. Mignotte, *A note on the equation  $ax^n - by^n = c$* , Acta Arith. **75** (1996), 287–295.
- [Mig-Weg] M. Mignotte and B. de Weger, *On the Diophantine equations  $x^2 + 74 = y^5$  and  $x^2 + 86 = y^5$* , Glasgow Math. J. **38** (1996), 77–85.
- [Mis] M. Mischler, *La conjecture de Catalan racontée à un ami qui a le temps*, preprint available on the web at the URL <http://arxiv.org/pdf/math.NT/0502350>.
- [Mom] F. Momose, *Rational points on the modular curves  $X_{\text{split}}(p)$* , Composition Math. **52** (1984), 115–137.
- [Mor] L. Mordell, *Diophantine equations*, Pure and applied Math. **30**, Academic Press (1969).
- [Mori] M. Mori, *Developments in the Double Exponential Formula for Numerical Integration*, in Proceedings ICM 1990, Springer-Verlag (1991), 1585–1594.
- [Nak-Tag] Y. Nakkajima and Y. Taguchi, *A generalization of the Chowla-Selberg formula*, J. reine angew. Math. **419** (1991), 119–124.
- [New] D. Newman, *Analytic number theory (2nd corrected printing)*, Graduate Texts in Math. **177**, Springer-Verlag (2000).
- [Pap] I. Papadopoulos, *Sur la classification de Néron des courbes elliptiques en caractéristique résiduelle 2 et 3*, J. Number Theory **44** (1993), 119–152.
- [Poo-Sch-Sto] B. Poonen, E. Schaefer, and M. Stoll, *Twists of  $X(7)$  and primitive solutions to  $x^2 + y^3 = z^7$* , in preparation.
- [Poo-Wil] A. van der Poorten and K. Williams, *Values of the Dedekind eta function at quadratic irrationalities*, Canadian Jour. Math. **51** (1999), 176–224, corrigendum **53** (2001), 434–448.
- [Rib1] K. Ribet, *On modular representations of  $\text{Gal}(\overline{\mathbb{Q}}/\mathbb{Q})$  arising from modular forms*, Invent. Math. **100** (1990), 431–476.
- [Rib2] K. Ribet, *On the equation  $a^p + 2b^p + c^p = 0$* , Acta Arith. **LXXIX.1** (1997), 7–15.
- [Rob1] A. Robert, *A course in  $p$ -adic analysis*, Graduate Texts in Math. **198**, Springer-Verlag (2000).
- [Rob2] A. Robert, *The Gross-Koblitz formula revisited*, Rend. Sem. Math. Univ. Padova **105** (2001), 157–170.
- [Rod-Zag] F. Rodriguez-Villegas and D. Zagier, *Which primes are sums of two cubes*,
- [Sam] P. Samuel, *Théorie algébrique des nombres*, Hermann, Paris (1971).
- [Sch] E. Schaefer, *2-descent on the jacobians of hyperelliptic curves*, J. Number Theory **51** (1995), 219–232.
- [Sch-Sto] E. Schaefer and M. Stoll, *How to do a  $p$ -descent on an elliptic curve*, Trans. Amer. Math. Soc. **356** (2004), 1209–1231.

- [Scho] R. Schoof, *Class groups of real cyclotomic fields of prime conductor*, Math. Comp. **72** (2003), 913–937 (see also the errata on Schoof's home page).
- [Sel1] E. S. Selmer, *The Diophantine equation  $ax^3 + by^3 + cz^3 = 0$* , Acta Math. **85** (1951), 203–362.
- [Sel2] E. S. Selmer, *Completion of the tables*, Acta Math. **92** (1954), 191–197.
- [Ser1] J.-P. Serre, *Cours d'arithmétique*, P.U.F., Paris (1970). English translation: Graduate Texts in Math. **7**, Springer-Verlag (1973).
- [Ser2] J.-P. Serre, *Corps locaux (2nd ed.)*, Hermann, Paris (1968). English translation: Graduate Texts in Math. **67**, Springer-Verlag (1979).
- [Ser3] J.-P. Serre, *Sur les représentations modulaires de degré 2 de  $\text{Gal}(\overline{\mathbb{Q}}/\mathbb{Q})$* , Duke Math. J. **54** (1987) 179–230.
- [Ser4] J.-P. Serre, *Abelian  $\ell$ -adic representations and elliptic curves*, W. A. Benjamin, New York, 1968.
- [Ses] J. Sesario, *Books IV to VII of Diophantus's Arithmetica in the Arabic Translation attributed to Qusta ibn Luga*, Sources in the History of Mathematics and Physical Sciences **3**, Springer-Verlag (1982).
- [Shi] G. Shimura, *Introduction to the arithmetic theory of automorphic functions*, Iwami Shoten (1971).
- [Sho-Tij] T. Shorey and R. Tijdeman, *Exponential Diophantine equations*, Cambridge Tracts in Mathematics **87**, Cambridge University Press (1986).
- [Sik] S. Siksek, *On the Diophantine equation  $x^2 = y^p + 2^k z^p$* , Journal de Théorie des Nombres de Bordeaux **15** (2003), 839–846.
- [Sik-Cre] S. Siksek and J. Cremona, *On the Diophantine equation  $x^2 + 7 = y^m$* , Acta Arith. **109** (2003), 143–149.
- [Sil1] J. Silverman, *The arithmetic of elliptic curves*, Graduate Texts in Math. **106**, Springer-Verlag (1986).
- [Sil2] J. Silverman, *Advanced topics in the arithmetic of elliptic curves*, Graduate Texts in Math. **151**, Springer-Verlag (19XX).
- [Sil3] J. Silverman, *The difference between the Weil height and the canonical height on elliptic curves*, Math. Comp. **55** (1990), 723–743.
- [Sil4] J. Silverman, *Rational points on certain families of curves of genus at least 2*, Proc. London Math. Soc. **55** (1987), 465–481.
- [Sil-Tat] J. Silverman and J. Tate, *Rational points on elliptic curves*, Undergraduate Texts in Math., Springer-Verlag (1992).
- [Sim1] D. Simon, *Solving quadratic equations using reduced unimodular quadratic forms*, preprint.
- [Sim2] D. Simon, *Computing the rank of elliptic curves over a number field*, LMS J. Comput. Math. **5** (2002), 7–17.
- [Sma] N. Smart, *The algorithmic resolution of Diophantine equations*, London Math. Soc. Student Texts **41** (1998).
- [Sta1] H. Stark, *Some effective cases of the Brauer–Siegel theorem*, Invent. Math. **23** (1974), 135–152.
- [Sta2] H. Stark, *Complex multiplication...*
- [Sto] M. Stoll, *Implementing 2-descent for Jacobians of hyperelliptic curves*, Acta Arith. **98** (2001), 245–277.
- [Sug] T. Sugatani, *Rings of convergent power series and Weierstrass preparation theorem*, Nagoya Math. J. **81** (1981), 73–78.
- [Swd] H.-P.-F. Swinnerton-Dyer, *A brief guide guide to algebraic number theory*, London Math. Soc. Student Texts **50**, Cambridge University Press (2001).

- [Tak-Mor] H. Takashi and M. Mori, *Double Exponential Formulas for Numerical Integration*, Publications of RIMS, Kyoto University (1974), 9:721–741.
- [Tay] P. Taylor, *On the Riemann zeta function*, Quart. J. Math., Oxford Ser. **16** (1945), 1–21.
- [Tay-Wil] R. Taylor and A. Wiles, *Ring theoretic properties of certain Hecke algebras*, Annals of Math. **141** (1995), 553–572.
- [Ten] S. Tengely, *On the Diophantine equation  $F(x) = G(y)$* , Acta Arith. **110** (2003), 185–200.
- [Tij] R. Tijdeman, *On the equation of Catalan*, Acta Arith. **29** (1976), 197–209.
- [Tza-Weg] N. Tzanakis and B. de Weger, *On the practical solution of the Thue Equation*, J. Number Th. **31** (1989), 99–132.
- [Vel] J. Vélu, *Isogénies entre courbes elliptiques*, Comptes Rendus Acad. Sc. Paris Sér. A **273** (1971), 238–241.
- [Vil] Y. Villessuzanne, personal communication.
- [Wald1] M. Waldschmidt, *Minorations de combinaisons linéaires de logarithmes de nombres algébriques*, Canadian J. Math. **45** (1993), 176–224.
- [Wald2] M. Waldschmidt, *Diophantine approximation on linear algebraic groups*, Springer-Verlag (2000).
- [Wals] P. G. Walsh, *A quantitative version of Runge's theorem on Diophantine equations*, Acta Arith. **62** (1992), 157–172.
- [Was] L. Washington, *Introduction to cyclotomic fields* (2nd ed.), Graduate Texts in Math. **83**, Springer-Verlag (1997).
- [Watk] M. Watkins, .
- [Wats] G. Watson, *A treatise on the theory of Bessel functions* 2nd edition, Cambridge Univ. Press (1966).
- [Wet] J. Wetherell, *Bounding the Number of Rational Points on Certain Curves of High Rank*, PhD thesis, Univ. California Berkeley (1997).
- [Wil] A. Wiles, *Modular elliptic curves and Fermat's last theorem*, Annals of Math. **141** (1995), 443–551.
- [Yam] Y. Yamamoto, *Real quadratic number fields with large fundamental units*, Osaka J. Math. **8** (1971), 261–270.
- [Zag] D. Zagier, *Modular parametrizations of elliptic curves*, Canad. Math. Bull. **28** (1985), 372–384.
- [XXX] .