

I.N.R.I.A / C.E.R.M.I.C.S.
Premia 5

References

- [1] H. NIEDERREITER A.B.OWEN and J.SHIUE Editors. *Randomly permuted (t,m,s) -Nets and (t,s) -sequences*. in "Montecarlo and Quasi Montecarlo methods in Scientific Computing". Springer, New York, 1995.
- [2] L.CLEWLOW A.CARVEHILL. On the simulation of contingent claims. *Journal of Derivatives*, pages 66–73, Winter 1994.
- [3] H.GEMAN A.EYDELAND. Domino effects:inverting the laplace transform. *RISKAvril*, 1995.
- [4] I.A. ANTONOV and V.M. SALEEV. An economic method of computing lp_τ -sequences. *USSR Comput. Maths. Math. Phys*, 19:252–256, 1980.
- [5] A.PELSSER-T.VORST. The binomial model and the greeks. *The Journal Of Derivatives*, Spring:45–49, 1994.
- [6] G.FUSAI A.TAGLIANI. Accurate valuation of asian options using moments. *Working Paper University of Novara Italy*, 2000.
- [7] J.HULL A.WHITE. The pricing of options on assets with stochastic volatility. *J.Of Finance*, 42:281–300, 1987.
- [8] J.HULL A.WHITE. The use of the control variate technique in option pricing. *J.Of Finance and Quantitative Analysis*, 23:237–251, 1988.
- [9] J.HULL A.WHITE. Efficient procedures for valuing european and american path-dependent options. *The Journal of Derivatives*, 1:21–31, 1993.
- [10] A.ERN S.VILLENEUVE A.ZANETTE. Adaptive finite element methods for local volatility european option pricing. *preprint*, 02-224 CER-MICS, 2002.

- [11] S.VILLENEUVE A.ZANETTE. Parabolic A.D.I. methods for pricing american option on two stocks. *Mathematics of Operations Research*, pages 121–151, Feb 2002.
- [12] E. PARDOUX B. LAPEYRE and R. SENTIS. *Methodes de Monte Carlo pour les equations de transport et de diffusion*. Number 29. Mathematiques Applications, 1998.
- [13] B.Arouna. Variance reduction and robbind-monro algorithm. Technical report, Cermics, 2002.
- [14] B.Dupire. Pricing on a smile. *Risk magazine*, 7.
- [15] D.LAMBERTON B.LAPEYRE. *Introduction to Stochastic Calculus Applied to Finance*. Chapman and Hall, 1996.
- [16] P.JAILLET D.LAMBERTON B.LAPEYRE. Variational inequalities and the pricing of American options. *Acta Applicandae Mathematicae*, 21:263–289, 1990.
- [17] B.OKSENDAL. An introduction to malliavin calculus with applications to economics. *Working Paper 3/96*, 96.
- [18] E. BRAATEN and G. WELLER. An improved low-discrepancy sequence for multidimensional quasi-monte carlo integration. *Journal of Comput. Phys.*, (33):249–258, 1979.
- [19] P. BRATLEY and B.L. FOX. Algorithm 659. implementing sobol’s quasirandom sequence generator. *ACM Transactions on Mathematical Software*, 14(1):88–100, 1988.
- [20] P. CARR. Randomization and the american put. Technical report, Morgan Stanley Bank - New York, 1997.
- [21] C.E.LEMKE. Bimatrix equilibrium points and Mathematical Programming. *Management Science*, 11:681–689, 1965.
- [22] COCHRAN. *Sampling Techniques*. Wiley Series in Probabilities and Mathematical Statistics, 1977.
- [23] C.W.CRYER. The solution of a quadratic programming problem using systematic overrelaxation. *SIAM J. Control*, (9):385–392, 1971.
- [24] C.W.CRYER. The efficient solution of linear complementarity problems for tridiagonal minkowski matrices. *ACM Trans. Math. Software*, (9):199–214, 1983.

- [25] A.BRANDT C.W.CRYER. Multigrid algorithm for the solutions of linear complementarity problems arising from free boundary problems. *Siam J.Sci.Stat.Comp*, 4:655–684, Dic 1983.
- [26] D. D.-Castelle and D. Marie. *Probabilits et Statisques (tome 2.)*. Masson, France, 1983.
- [27] P. CARR D.B.MADAN. Option valuation using the fast fourier transform. Technical report, 1999.
- [28] D.E.KNUTH. *The Art of Computer programming, Seminumerical Algorithms*, volume 2. Addison-Wesley, 1981.
- [29] P.CARR D.FAGUET. Fast accurate valuation of american options. *working paper*, 1994.
- [30] D.LAMBERTON. Random walk approximation and option prices. *Proceedings of the 5th CAP Workshop on Mathematical Finance, Columbia University, November 1998*, page Unknown, 1999.
- [31] J.BARRAQUAND D.MARTINEAU. Numerical valuation of high dimensional multivariate american securities. *J.Of Finance and Quantitative Analysis*, (30):383–405, 1995.
- [32] D.S. Clark . Necessary and sufficient conditions for the robbins-monro method. *Stochastic Processes and their Applications*, 17:359–367, 1984.
- [33] B.LAPEYRE A.SULEM D.TALAY. *Understanding Numerical Analysis for Financial Models*. Cambridge University Press, To appear.
- [34] E.Derman and I. Kani. Riding on a smile. *Risk magazine*, 7.
- [35] L.C.G.ROGERS E.J.STAPLETON. Fast accurate binomial pricing. *preprint*, 1997.
- [36] E.LEVY. Pricing european average rate currency options. *J.Of International Money and Finance*, 11:474–491, 1992.
- [37] F.A.LONGSTAFF E.S.SCHWARTZ. Valuing american options by simulations:a simple least-squares approach. *Working Paper Anderson Graduate School of Management University of California*, 25, 1998.
- [38] M.J.BRENNAN E.S.SCHWARTZ. The valuation of the American put option. *J. of Finance*, 32:449–462, 1977.

- [39] N.JACKSON E.SULI. Adaptive finite element solution of 1d european option pricing problems. Technical Report 5, Oxford Computing Laboratory, 1997.
- [40] E. FOURNIE J.M.LASRY et al. An application of malliavin calculs to montecarlo methods in finance. *working paper*, 1997.
- [41] E.TEMAM. Monte carlo methods for asian options. *preprint*, 98-144 CERMICS, 1998.
- [42] F. Mercurio and D. Brigo. Lognormal-mixture dynammics and calibration to market smiles. *Preprint*, 2001.
- [43] G.BARLES. Convergence of numerical schemes for degenerate parabolic equations arising in finance theory. In L.C.G. Rogers and D. Talay, editors, *Numerical Methods in Finance*, Publications of the Newton Institute, pages 1–21. Cambridge University Press, 1997.
- [44] G.PAGES. A space vector quantization for numerical integration. *Journal of Applied and Computational Mathematics*, 89:1–38, 1997.
- [45] D.LAMBERTON G.PAGES. Sur l’approximation des réduites. *Ann. Inst. Henri Poincaré*, 26:331–355, 1990.
- [46] J.C.FORT G.PAGES. About the a.s. convergence of the kohonen algorithm with a general neighborhood function. *The Annals of Applied Probability*, 5(4), 1995.
- [47] P.BJERKSUND G.STENSLAND. Closed form aproximation of american options prices. *to appear in Scandinavian Journal of Management*, 1992. Working Paper Norwegian School of Economics and Business Administration.
- [48] H.-F. Chen, L. Guo, and A.-J. Gao. Convergence and robustness of the robbins-monro algorithm truncated at randomly varying bounds. *Stochastic Processes and their Applications*, 27:217–231, 1988.
- [49] R.GESKE H.E.JOHNSON. The american put options valued analytically. *J.of Financial Economics*, 39:1511–1524, 1984.
- [50] H.F. Chen and Y.M. Zhu. Stochastic approximation procedure with randomly varying truncations. *Scientia Sinica (series A)*, 29.
- [51] H.FAURE. Discrépance de suites associées à un système de numération (en dimension s). *Acta Arithmetica*, XLI:337–361, 1982.

- [52] H.J.KUSHNER. *Probability Methods for Approximations in Stochastic Control and for Elliptic Equations*. Academic Press, New York, 1977.
- [53] H.JOHNSON. Options on the maximum or the minimum of several assets. *J.Of Finance and Quantitative Analysis*, 22:227–283, 1987.
- [54] D.BUNCH H.JOHNSON. A simple and numerically efficient valuation method for american puts using a modified geske-johnson approach. *J.of Finance*, 47:809–816, 1992.
- [55] R.C.HEYNEN H.M.KAT. Partial barrier options. *Journal of Financial Engineering*, (3):253–274, 1994.
- [56] H.NEIDERREITER. *Random Number Generation and Quasi Monte Carlo Methods*. Society for Industrial and Applied mathematics, 1992.
- [57] H.NIEDERREITER. Points sets and sequences with small discrepancy. *Monatsh.Math*, 104:273–337, 1987.
- [58] H.P.BERMIN, editor. *Essays on Lookback and Barrier Options: A Malliavin Calculus Approach*. Lund Economic Studies, 1998.
- [59] DEMPSTER HUTTON. Fast numerical valuation of american, exotic and complex options. *Applied Mathematical Finance*, (4):1–20, 1997.
- [60] M.ABRAMOWITZ I.A.STEGUN, editor. *Handbook of Mathematical Functions*. Dover, 9th edition, 1970.
- [61] E.DERMAN I.KANI D.ERGENEER I.BARDHAN. Enhanced numerical methods for options with barriers. *Financial Analyst Journal*, pages 65–74, Nov-Dec 95 1995.
- [62] I.J.KIM. The analytic valuation of american options. *Review of Financial Studies*, (3):547–572, 1990.
- [63] I.M.SOBOL. The distribution of points in a cube and the approximate evaluation of integrals. *U.S.S.R. Computational Math.and Math.Phys.*, 7(4):86–112, 1967.
- [64] INRIA. *Probabilites numeriques. Chap 1: suites a discrepance faible et integration numerique*.
- [65] HAMMERSLEY J. and HANDSCOMB D. *Monte Carlo Methods*. Chapman and Hall, London, 1979.

- [66] G.RUIZ-GOLDSTEIN J.A.GOLDSTEIN, editor. *Semigroups of linear and nonlinear operators and applications*. Kluwer Academic Publisher, 1992.
- [67] J.ANDREASEN. The pricing of discretely sampled asian and lookback options: a change of numeraire approach. *The Journal of Computational Finance*, 2(1):5–23, 1998.
- [68] L. ANDERSEN J.ANDREASEN. Volatility smile fitting and numerical methods for pricing. *preprint*.
- [69] J.BARRAQUAND. Numerical valuation of high dimensional multivariate european securities. *Manangement Science*, pages 1882–1891, 1995.
- [70] J.BUSCA. A finite element method for the valuation of american options. Technical report, C.A.R. Internal Report, 1998.
- [71] M.BROADIE J.DETEMPLE. American option valuation : new bounds, approximations and a comparison of existing methods. *Review of financial studies, to appear*, 1995.
- [72] J.E.ZHANG. A semy-analytical method for pricing and hedging continuously-sampled arithmetic average rate options. *preprint*, September 2000.
- [73] J.H.HALTON. On the efficiency of certain quasi-random sequences of points in evaluating multi-dimensional integrals. *Numer. Math.*, 2:84–90 et erratum, 1960.
- [74] S. JOE. Randomization of lattice rules for numerical multiple integration. *Journal of Computational and Applied Mathematics*, (31):299–304, 1990.
- [75] D.W.PEACEMAN-H.H.RACHFORD Jr. The numerical solution of parabolic and elliptic differential equations. *J.of Siam*, 3:28–42, 1955.
- [76] Jr J.DOUGLAS H.H.RACHFORD Jr. On the numerical solution of heat conduction problems in two and three-space variables. *Trans Amer.Math.Soc.*, 82:421–439, 1956.
- [77] A.KHANNA K.AMIN. Convergence of american option values from discrete to continuous time financial models. *Mathematical finance*, 4:289–304, 1994.

- [78] A.G.Z KEMNA and A.C.F.VORST. A pricing method for options based on average asset values. *J. Banking Finan.*, pages 113–129, March 1990.
- [79] L. KOCIS and W.J. WHITEN. Computational investigations of low discrepancy sequences. *ACM Transactions on Mathematical Software*, 23(2):266–294, June 1997.
- [80] R.ZVAN P.A.FORSYTH K.R.VETZAL. Convergence of lattice and PDE methods for pricing asian options. *Working Paper Department of Computer Science, University of Waterloo*, 1998.
- [81] R.ZVAN P.A.FORSYTH K.R.VETZAL. Pde methods for pricing barrier options. *Technical Report Department of Computer Science, University of Waterloo*, 1998.
- [82] R.ZVAN P.A.FORSYTH K.R.VETZAL. Robust numerical methods for pde models of asian option. *Journal of Computational Finance*, 1:39–78, 1998.
- [83] S.TURNBULL WAKEMAN L. A quick algorithm for pricing european average options. *J.Of Financial and Quantitative Analysis*, 26:377–389, 1991.
- [84] L. Andersen and J. Andreasen. Jump-diffusion processes: Volatility smile fitting and numerical methods for pricing. *Preprint*, 1 999.
- [85] L.C.G.ROGERS and D.TALAY, editors. *Numerical Methods in Finance*. Publications of the Newton Institute. Cambridge University Press, 1997.
- [86] H.Ben Hameur M.Breton P. L’Ecuyer. A numerical procedure for pricing american-style asian option. *preprint*, 1999.
- [87] P. L’ECUYER. Maximally equidistributed combined tausworthe generators.
- [88] P. L’ECUYER. Random numbers for simulation. *Communications of the ACM*, 33(10), Octobre 1990.
- [89] P. L’ECUYER. Uniform random number generation. *The Annals of Operations Research*, 53:77–120, 1994.
- [90] P. L’ECUYER. Random number generation. In *In the Hanbook of Simulation*. 1998.

- [91] P. L'ECUYER. Good parameters and implementations for combined multiple recursive random number generators. *Shorter version in Operations Research*, 47(1):249–260, 1999.
- [92] V. LINETSKY. Step options (the feynman-kac approach to occupation time derivatives). Technical Report 96-18, University of Michigan, IOE Technical Report, 1996.
- [93] REGNIER H. LIONS P.L. Calcul du prix et des sensibilites d'une option americaine par une methode de monte-carlo. Technical report, Preprint, 2000.
- [94] L.MACMILLAN. Analytic approximation for the American put option. *Advances in Futures and Options Research*, 1:119–139, 1986.
- [95] B.M.GOLDMAN H.B.SOSIN M.A.GATTO. Path dependent options: buy at low, sell at high. *J. of Finance*, 34:111–127, 1979.
- [96] D. Marie. *Algorithmes stochastiques*. Springer-Verlag, France, 1996.
- [97] D. Marie. *Random Iterative Models*. Springer-Verlag, France, 1997.
- [98] M.Avellaneda, C. Friedman, R. Buff, and N. Granchamp. Weighted monte-carlo: A new technique for calibrating asset-pricing models. *Int. J. Theor. and Appl. Finance*, 4.
- [99] M.Avellaneda, C. Friedman, R. Holmes, and D. Samperi. Calibrating volatility surfaces via relative entropy minimization. *Appl. Math. Finance*, 4.
- [100] F.DIENER M.DIENER. Asymptotics of the binomial formula for option pricing. *Preprint Universite de Nice Sophia-Antipolis*, 1999.
- [101] P.BALDI L.CARAMELLINO M.G.IOVINO. Pricing single and double barrier options via sharp large deviations. *Preprint*, 1997.
- [102] P.BALDI L.CARAMELLINO M.G.IOVINO. Pricing complex barrier options with general features using sharp large deviation estimate. *Proceedings of the MCQMC Conference, Calremont (LA), USA*, 1999.
- [103] P.BALDI L.CARAMELLINO M.G.IOVINO. Pricing general barrier options: a numerical approach using sharp large deviations. *To appear in Mathematical Finance (1999)*, 1999.

- [104] W.J. MOROKOFF and R.E. CAFLISH. Quasi-random sequences and their discrepancies. *SIAM, Journal of Scientific Computing*, 15(6):1251–1279, nov 1994.
- [105] G.BARLES C.DAHER M.ROMANO. Convergence of numerical schemes for problems arising in finance theory. *Math. Models and Meth. in Appl. Sciences*, 5:125–143, 1995.
- [106] M.RUBINSTEIN. Return to oz. *Risk*, 7(11):67–71, 1994.
- [107] E.REINER M.RUBINSTEIN. Breaking down the barriers. *Risk*, 4:28–35, 191.
- [108] J.C.COX M.RUBINSTEIN. *Options Markets*. Prentice–Hall, London, 1985.
- [109] J.COX S.ROSS M.RUBINSTEIN. Option pricing: a simplified approach. *J. of Economics*, January 1978.
- [110] F.BLACK M.SCHOLES. The pricing of Options and Corporate Liabilities. *Journal of Political Economy*, 81:635–654, 1973.
- [111] Y.SAAD M.SCHULTZ. Gmres: A generalized minimal residual algorithm for solving nonsymmetric linear sytems. *SIAM J. Sci. Static.Comput.*, (7):856–869, 1986.
- [112] M.YOR. On some exponiancial functionals of brownian motion. *Adv. Appl. Pro.*, 24:509–531, 1992.
- [113] D.REVUZ M.YOR. *Continuous Martingales and Brownian Motion*. 1994.
- [114] H.GEMAN M.YOR. Besssel processes, asian options, and perpetuities. *Mathematical finance*, 3:349–375, 1993.
- [115] H.GEMAN M.YOR. Pricing and hedging double barrier options: a probabilistic approach. *Mathematical finance*, 6:365–378, 1996.
- [116] M. CHESNEY M.JEANBLANC-PIQUÉ M.YOR. Brownian excursion and parisian barrier options. *Advances in Applied Probability*, 29:165–184, 1997.
- [117] N.BOULEAU. *Probabilits de l'ingnieur, variables alatoires et simulation*. Ed Hermann, 1986.

- [118] J. Neveu. *Martingales Temps Discrt.* Masson, 1972.
- [119] H. NIEDERREITER. Random number generation and quasi-monte carlo methods. *SIAM*, 1992.
- [120] H. NIEDERREITER. New developments in uniform pseudorandom number and vector generation. In Springer, editor, *In Lecture Notes in Statistics, 106 : Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing*, volume 106, pages 87–120, 1994.
- [121] N.KUNIMOTO N.IKEDA. Pricing options with curved boundaries. *Mathematical finance*, 2:275–298, 1992.
- [122] N.Jackson, E.Süli, and S. Howison. Computation of deterministic volatility surfaces. *J. Comp. Fin.*, 2.
- [123] N.J.NEWTON. Variance reduction for simulated diffusions. *SIAM J. Appl. Math.*, 54(6):1780–1805, 1994.
- [124] N.JU. Pricing an american option by approximating its early exercise boundary as a multipiece exponential function. *The Review of Financial Studies*, 11, 3:627–646, 1998.
- [125] A.B. OWEN. Monte carlo variance of scrambled net quadrature. *SIAM, Journal of Numerical Analysis*, 34(5):1884–1910, 1997.
- [126] A.B. OWEN. Scrambled net variance for integrals of smooth functions. *The annals of statistics*, 25(4):1542–156, 1997.
- [127] G. PAGES and Y.J. XIAO. Sequences with low discreoancy and pseudo random numbers: theoretical results and numerical tests. *J. Statist. Comput. Simul*, 56:163–188, 1997.
- [128] R. CRANLEY T.N.L. PATTERSON. Randomization of number theoretic methods fot multiple integration. *SIAM, Journal of Numerical Analysis*, 13(6), Dec 1976.
- [129] A. PAZY. *Semigroups of Linear Operators and Applications to partial Differential Equations*. Springer, 1983.
- [130] P.COHORT. Weak and strong law of large numbers for the random normalised distortion. *Submitted for publication*, 2000.
- [131] H.KUSHNER P.G.DUPUIS. *Numerical Methods for Stochastic Control Problems in Continous Time*. Springer-Verlag, 1992.

- [132] M.BROADIE P.GLASSERMANN. Pricing american-style securities using simulation. *J.of Economic Dynamics and Control*, 21:1323–1352, 1997.
- [133] M.BROADIE P.GLASSERMANN. A stochastic mesh method for pricing high-dimensional american options. *Working Paper*, Columbia University:1–37, 1997.
- [134] G.CH. Plufg. *Optimization of stochastic models*. Kluwer Academic Publisher, 1996.
- [135] P.RITCHKEN. On pricing barrier options. *Journal Of Derivatives*, pages 19–28, Winter 95 1995.
- [136] B.KAMRAD P.RITCHKEN. Multinomial approximating models for options with k state variables. *Management Science*, 37:1640–1652, 1991.
- [137] P.GLASSERMAN P.HEIDELBERGER P.SHAHABUDDIN. Gaussian importance sampling and stratification computational issue. *Computer Science/Mathematics*, September, 1998.
- [138] P.GLASSERMAN P.HEIDELBERGER P.SHAHABUDDIN. Asymptotically optimal importance sampling and stratification for pricing path-dependent options. *Mathematical Finance*, 2, April:117–152, 1999.
- [139] D.BEAGKEHOLE D.DYBVIG P.ZHOU. Going to extremes:correcting simulation bias in exotic option valuation. *Financial Analyst Journal*, pages 62–68, Jan-Feb 1997.
- [140] R.BARRETT, editor. *Templates for the solution of linear systems:building blocks for iterative methods*. Siam, 1998.
- [141] R.BREEN. The accelerated binomial option pricing. *J.Of Finance and Quantitative Analysis*, (26):153–164, 1991.
- [142] L.ANDERSON R.BROTHERTON-RATCLIFFE. Exact exotics. *Risk*, (9):85–89, Oct 1996.
- [143] R.C.MERTON. Option pricing when the underlying stocks returns are discontinuous. *Journ. Financ. Econ.*, 5:125–144, 1976.
- [144] G.BARONE-ADESI R.E.WHALEY. Efficient analytic approximation of American option values. *Journal of Finance*, 42:301–320, 1987.

- [145] R.Lagnado and S. Osher. A technique for calibrating derivative security pricing models: numerical solution of an inverse problem. *J. Comp. Fin.*, 1.
- [146] A.GERSHO R.M.GRAY. *Vector Quantization and Signal Compression*. Kluwer, 7th edition, 1992.
- [147] M.J.SABIN R.M.GRAY. Global convergence and empirical consistency of the generalised lloyd algorithm. *IEEE Transactions on Information Theory*, 32:148–155, March 1986.
- [148] L.C.G. Rogers. Montecarlo valuation of american option. *Preprint*, 2000.
- [149] J.N.TSITSIKLIS B.VAN ROY. Optimal stopping of markov processes: Hilbert spaces theory, approximations algorithms and an application to pricing high-dimensional financial derivatives. *IEEE Transactions on Automatic Control*, 44(10):1840–1851, October 1999.
- [150] J.N.TSITSIKLIS B.VAN ROY. Regression methods for pricing complex american-style options. *Working Paper*, MIT:1–22, 2000.
- [151] R.SEDGEWICK. *Algorithms*. Addison–Wesley, 1987.
- [152] R.STULZ. Options on the minimum or the maximum of two risky assets. *J. of Finance*, 10:161–185, 1992.
- [153] R.GLOWINSKI J-L.LIONS R.TREMOLIERES. *Analyse Numérique des Inéquations Variationnelles*. Dunod, 1976.
- [154] R.Y. RUBINSTEIN. *Simulation and the Monte Carlo Method*. Wiley Series in Probabilities and Mathematical Statistics, 1981.
- [155] A.CONZE R.VISWANATHAN. Path dependent options: the case of lookback options. *J. of Finance*, 46:1893–1907, 1992.
- [156] S.BABBS. Binomial valuation of lookback options. *working paper, Midland Global Markets London*, 1992.
- [157] M.A.MILEVSKY S.E.POSNER. Asian options, the sum of lognormals and the reciprocal gamma distribution. *J. Of Financial and Quantitative Analysis*, 3:409–422, September 1998.
- [158] P.BOYLE J.EVNINE S.GIBBS. Numerical evaluation of multivariate contingent claims. *Review of Financial Studies*, (2):241–250, 1989.

- [159] H. NIEDERREITER P.J.S. SHIUE. Monte carlo and quasi-monte carlo methods in scientific computing. *Lecture Notes in Statistics*, Ed Springer, 106, 1995.
- [160] P.WILMOTT J.DEWYNE S.HOWISON. *Option pricing Mathematical Models and Computation*. Oxford Financial Press, 1993.
- [161] M.BROADIE P.GLASSERMANN S.KOU. A continuity correction for discrete barrier options. *Mathematical Finance*, 7, 1997.
- [162] S.L.HESTON. A closed-form solution for options with stochastic volatility with applications to bond and currency options. *Review of Financial Studies*, 6(2):327–343, 1993.
- [163] I.M. SOBOL. Uniformly distributed sequences with an additional uniformity property. *USSR Comput. Maths. Math. Phys*, 16:236–242, 1976.
- [164] E.LEVY S.TURNBULL. Average intelligence. *RISK*, 5(2):377–389, 1992.
- [165] S. TEZUKA. A generalization of faure sequences and its efficient implementation. Technical report, Winter Simulaiton Conference, 1995.
- [166] G.W.P. THOMPSON. Fast narrow bounds on the value of asian options. *Working paper Judge Institute U. of Cambridge*, 1999.
- [167] J.BARRAQUAND T.PUDET. The pricing of american path-dependent contingent claims. *Mathematical Finance*, 6(1):17–51, 1996.
- [168] T.S.HO-R.C.STAPLETON-M.G.SUBRAHMANYAM. A simple technique for the valuation and hedging of american options. *The Journal of Derivatives*, pages 52–66, Fall 1994.
- [169] Q.ZHANG T.TAKSAR. Analytical approximation for american look-back options. *preprint*, 1998.
- [170] T.CHEUK T.VORST. Lookback options and the observation frequency. *working paper, Erasmus University Rotterdam*, 1994.
- [171] T.CHEUK T.VORST. Complex barrier options. *Journal of Derivatives*, 4:8–22, 1996.

- [172] G.PAGES V.BALLY. A quantization method for the discretization of bsde's and reflected bsde's. *Working Paper Université Paris XII*, pages 1–40, 2000.
- [173] H.VAN DER VORST. Bi-cgstab: A fast and smoothly converging variant of bi-cg for the solution of nonsymmetric linear systems. *SIAM J. Sci. Static.Comput.*, (13):631–644, 1992.
- [174] FU MADAN WANG. Pricing continuous time asian options: A comparison of analytical and monte carlo methods. *College of Business and Management*, 1996.
- [175] W.T. VETTERLING W.H. PRESS, S.S. TEUTOLSKY and B.P. FLANNERY. *Numerical Recipes in C. The art of scientific computing*. Cambridge University Press, 1992.
- [176] W.HACKBUSCH and U.TROTTEBERG, editors. *Multigrid Methods*, volume 960 of *Lecture Notes in Math*. Springer Verlag, 1981.
- [177] DAVID VERNON WIDDER. *The Laplace Transform*. Princeton University press, 1941.
- [178] D. Williams. *Probability with Martingales*. Cambridge University Press, 1995.
- [179] W.WAGNER. Monte carlo evaluation of functionals of stochastic differential equations—variance reduction and numerical examples. *Stoch. Analysis Appl.*, 6:447–468, 1988.
- [180] J.ABATE W.WHITT. Numerical inversion of laplace transform of probability distribution. *ORSA Journal of Computing*, 7(1), Winter 1995.
- [181] Y.D.LYUU. Very fast algorithms for barrier option pricing and the ballot problem. *Journal of Derivatives*, Spring, 1998.
- [182] P.BOYLE Y.TIAN. Pricing path-dependent options under the cev process. *Working Paper*, 1997.
- [183] P.BOYLE Y.TIAN. An explicit finite difference approach to the pricing of barrier options. *Applied Mathematical Finance*, (5):17–43, 1998.
- [184] Y.W.KWOK. *Mathematical models of financial derivatives*. Springer Finance, 1998.

- [185] Y.W.KWOK. Some theoretical aspects of option pricing algorithms. *Preprint Hong-Kong University of Science and Technology*, 1999.
- [186] X. Zhang. Analyse numérique des options américaines dans un modèle de diffusion avec sauts. Technical report, CERNA-Ecole Nationale des Ponts et Chaussées, 94.
- [187] L.C.G.ROGERS Z.SHI. The value of an asian option. *J. Appl. Probab.*, 32(4):1077–1088, 1995.