

Appendix A

Bibliography

A.1 THEORY

A.1.1 Probability Theory

S. Asmussen, *Applied Probability and Queues*, Wiley, New York, 1987.

K. L. Chung, *A Course in Probability Theory*, 2nd edition, Academic Press, New York, 2000.

A. B. Clarke and R. L. Disney, *Probability and Random Processes for Engineers and Scientists*, Wiley, New York, 1970 (introductory).

W. Feller, *An Introduction to Probability Theory and Its Applications*, 2 vols., Wiley, New York, 1968 (introductory and advanced).

B. V. Gnedenko and I. A. Ushakov, *Theory of Probability*, 6th ed., G & B Science Publishers, 1997.

R. Nelson, *Probability, Stochastic Processes, and Queueing Theory: The Mathematics of Computer Performance Modelling*, Springer-Verlag, New York, 1995.

E. Parzen, *Modern Probability Theory*, Wiley, New York, 1960.

S. M. Ross, *Applied Probability Models with Optimization Applications*, Holden-Day, San Francisco, 1970.

S. M. Ross, *Introduction to Probability Models*, Academic Press, New York, 1993.

A. N. Shiryaev, R. P. Boas, and A. N. Shiriaev, *Probability*, 2nd ed., Springer-Verlag, 1996.

A.1.2 Stochastic Processes

- U. N. Bhat, *Elements of Applied Stochastic Processes*, 2nd ed., Wiley, New York, 1984 (intermediate).
- E. Cinlar, *Introduction to Stochastic Processes*, Prentice-Hall, Englewood Cliffs, NJ, 1975 (advanced).
- D. R. Cox, *Renewal Theory*, Methuen, London, 1962 (advanced).
- D. R. Cox and H. D. Miller, *The Theory of Stochastic Processes*, Chapman & Hall, London, 1965.
- S. Karlin and H. M. Taylor, *A First Course in Stochastic Processes*, Academic Press, New York, 1975.
- E. P. C. Kao, *An Introduction to Stochastic Processes*, Duxbury Press, 1997.
- G. Kemeny and J. L. Snell, *Finite Markov Chains*, Van Nostrand-Reinhold, New York, 1960.
- M. Kijima, *Markov Processes for Stochastic Modelling*, Chapman & Hall, New York, 1997.
- V. G. Kulkarni, *Modeling and Analysis of Stochastic Systems*, Chapman & Hall, London, 1995.
- V. G. Kulkarni, *Modeling, Analysis, Design, and Control of Stochastic Systems*, Springer, New York, 1999.
- J. Medhi, *Stochastic Processes*, Wiley Eastern Limited, New Delhi, India, 1994.
- E. Parzen, *Stochastic Processes*, Holden-Day, San Francisco, 1962 (intermediate).
- N. U. Prabhu, *Stochastic Processes: Basic Theory and Its Applications*, Macmillan, New York, 1965 (advanced).
- S. M. Ross, *Stochastic Process*, 2nd ed., Wiley, New York, 1995.
- H. M. Taylor and S. Karlin, *An Introduction to Stochastic Modeling*, Academic Press, New York, 1994.
- H. C. Tijms, *Stochastic Models: An Algorithmic Approach*, John Wiley & Sons, New York, 1995.

A.1.3 Queuing Theory

U. N. Bhat and I. V. Basawa (eds.), *Queuing and Related Models*, Oxford Univ. Press, 1992.

G. Bolch, S. Greiner, H. De Meer and K. S. Trivedi, *Queueing Networks and Markov Chains*, Wiley, New York, 1998.

O. J. Boxma and R. Syski (eds.), *Queuing Theory and Its Applications*, North-Holland, 1988.

S. C. Bruell and G. Balbo, *Computational Algorithms for Closed Queueing Networks*, Elsevier North-Holland, New York, 1980.

J. W. Cohen, *The Single Server Queue*, 2nd ed., North Holland, New York, 1982.

R. B. Cooper, *Introduction to Queuing Theory*, 2nd ed., North-Holland, New York, 1981 (introductory).

D. R. Cox and W. L. Smith, *Queues*, CRC Press, 1999.

J. N. Daigle, *Queueing Theory for Telecommunications*, Addison-Wesley, 1992.

B. V. Gnedenko and I. N. Kovalenko, *Introduction to Queueing Theory*, Springer-Verlag, 1989.

D. Gross and C. M. Harris, *Fundamentals of Queuing Theory*, 3rd ed., Wiley, New York, 1998.

F. P. Kelley, *Reversibility and Stochastic Networks*, Wiley, New York, 1979 (advanced).

A. Y. Khintchine, *Mathematical Methods in Queuing Theory*, Griffen, London, 1960.

L. Kleinrock, *Queuing Systems*, Vol. I, *Theory*, Wiley, New York, 1975 (intermediate to advanced).

L. Kleinrock, *Queuing Systems*, Vol. II, Wiley, New York, 1976.

L. Lipsky, *Queueing Theory: A Linear Algebraic Approach*, Macmillan, New York, 1992.

C. H. Ng, *Queuing Modelling Fundamentals*, Wiley, 1997.

H. Perros, *Queueing Networks With Blocking : Exact and Approximate Solutions*, Oxford Univ. Press, 1994.

N. U. Prabhu, *Foundations of Queueing Theory*, Kluwer Academic Publishers, 1997.

- H. Takagi, *Queueing Analysis: A Foundation of Performance Evaluation. Vol. 1: Vacation and Priority Systems. Vol. 2: Finite Systems. Vol. 3: Discrete Time Systems.* North-Holland, 1991, 1993, and 1993.
- L. Takacs, *Introduction to the Theory of Queues*, Oxford Univ. Press, New York, 1972.
- N. M. Van Dijk, *Queueing Networks and Product Form: A Systems Approach*, Wiley, New York, 1993.
- J. Walrand, *An Introduction to Queueing Networks*, Prentice-Hall, Englewood Cliffs, NJ, 1988.
- R. Wolff, *Stochastic Modeling and the Theory of Queues*, Prentice-Hall, 1989.

A.1.4 Reliability Theory

- R. E. Barlow, *Engineering Reliability*, Wiley, New York, 1998.
- R. E. Barlow and F. Proschan, *Mathematical Theory of Reliability*, Wiley, New York, 1966 (advanced).
- R. E. Barlow and F. Proschan, *Statistical Theory of Reliability and Life Testing*, c/o Gordon Pledger, Silver Spring, MD, 1979.
- R. Billinton and R. N. Allan, *Reliability Evaluation of Engineering Systems: Concepts and Techniques*, Pitman Publishing, Marshfield, MA, 1983.
- A. Birolini, *Reliability Engineering: Theory and Practice*, Springer-Verlag, 1999.
- B. S. Dhillon and C. Singh, *Engineering Reliability: New Techniques and Applications*, Wiley, New York, 1981.
- B. S. Dhillon, *Reliability Engineering in Systems Design and Operation*, Van Nostrand Reinhold, New York, 1983.
- I. N. Kovalenko, N. Yu. Kuznetsov and P. A. Pegg, *Mathematical Theory of Reliability of Time-Dependent Systems*, Wiley, Chichester, 1997.
- L. M. Leemis, *Reliability Probabilistic Models and Statistical Methods*, Prentice-Hall, Englewood Cliffs, NJ, 1995.
- K. B. Misra, *Reliability Analysis and Prediction: A Methodology Oriented Treatment*, Elsevier, Amsterdam, 1992.
- K. B. Misra (ed.), *New Trends in System Reliability Evaluation*, Elsevier, Amsterdam, 1993.

S. Ozekici (ed.), *Reliability and Maintenance of Complex Systems*, Springer-Verlag, Berlin, 1996.

W. Schneeweiss, *The Fault Tree Method*, LiLoLe-Verlag, Hagen, Germany, 1999.

W. Schneeweiss, *Petri Nets for Reliability Modeling*, LiLoLe-Verlag, Hagen, Germany, 1999.

M. L. Shooman, *Probabilistic Reliability: An Engineering Approach*, 2nd ed., McGraw-Hill, 1990 (introductory).

P. A. Tobias and D. C. Trindale, *Applied Reliability*, 2nd ed., CRC Press, 1995.

A.1.5 Statistics

D. A. Berry and B. W. Lindgren, *Statistics: Theory and Methods*, 2nd ed., Duxbury Press, 1995.

M. H. Degroot, *Probability and Statistics*, 2nd ed., Addison-Wesley, 1986.

N. R. Draper and H. Smith, *Applied Regression Analysis*, 3rd ed., Wiley, New York, 1998 (intermediate).

R. V. Hogg and E. A. Tanis, *Probability and Statistical Inference*. 6th ed., Prentice-Hall, New York, 2001 (intermediate).

M. Hollander and D. A. Wolfe, *Non-parametric Statistical Methods*, Wiley, New York, 1973 (intermediate).

M. G. Kendall and A. Stuart, *The Advanced Theory of Statistics*, Vol. 2, *Inference and Relationship*, 4th ed., Oxford Univ. Press, New York, 1979 (advanced).

H. J. Larson, *Introduction to Probability Theory and Statistical Inference*, 3rd ed., Wiley, New York, 1982.

R. A. Johnson, I. Miller and J. E. Freund, *Miller and Freund's Probability and Statistics for Engineers*, 5th ed., Prentice-Hall, 1993 (introductory).

A. M. Mood and F. A. Graybill, *Introduction to the Theory of Statistics*, 3rd ed., McGraw-Hill, New York, 1979 (intermediate to advanced).

M. H. Kuther, C. J. Nachtsheim, J. Neter and W. Wasserman, *Applied Linear Statistical Models*, 4th ed., McGraw-Hill, New York, 1996.

G.E. Noether, *Elements of Nonparametric Statistics*, Wiley, New York, 1967.

- G. E. Noether, *Introduction to Statistics: The Nonparametric Way*, Springer-Verlag, New York, 1991.
- E. S. Pearson and H. O. Hartley, *Biometrika Tables for Statisticians*, 3rd ed., Cambridge Univ. Press, Cambridge, UK, 1966.
- M. R. Spiegel, *Schaum's Outline of Theory and Problems of Statistics*, 2nd ed., McGraw-Hill, New York, 1998 (introductory).
- R. E. Walpole, *Introduction to Statistics*, 3rd ed., Macmillan, New York, 1982.
- S. S. Wilks, *Mathematical Statistics*, Wiley, New York, 1962 (advanced).

A.2 APPLICATIONS

A.2.1 Computer Performance Evaluation

- A. O. Allen, *Introduction to Computer Performance Analysis with Mathematica*, AP (Academic Press) Professional, 1994.
- M. Ajmone-Marsan, G. Balbo and G. Conte, *Performance Models of Multiprocessor Systems*, MIT Press, Cambridge, MA, 1986.
- M. Ajmone-Marsan, G. Balbo, G. Conte, S. Donatelli and G. Franceschinis, *Modelling with Generalized Stochastic Petri Nets*, Wiley, New York, 1995.
- K. M. Chandy and R. T. Yeh, *Current Trends in Programming Methodology*, Vol. III, *Software Modeling*, Prentice-Hall, Englewood Cliffs, NJ, 1978 (intermediate to advanced).
- P. J. Courtois, *Decomposability: Queuing and Computer System Applications*, Academic Press, New York, 1977 (advanced).
- L. Donatiello and R. Nelson (eds.), *Performance Evaluation of Computer and Communication Systems*, Lecture Notes in Computer Science, Springer-Verlag, 1993.
- L. Dowdy and C. Lowery, *P.S. to Operating Systems*, Prentice-Hall, 1993.
- D. Ferrari, *Computer Systems Performance Evaluation*, Prentice-Hall, Englewood Cliffs, NJ, 1978 (intermediate).
- D. Ferrari, G. Serrazi, and A. Zeigner, *Measurement and Tuning of Computer Systems*, Prentice-Hall, 1983.
- R. German, *Performance Analysis of Communication Systems: Modeling with Non-Markovian Stochastic Petri Nets*, Wiley, New York, 2000.

- N. J. Guenther, *The Practical Performance Analyst: Performance by Design Techniques for Distributed Systems*, McGraw-Hill, 1998.
- G. Haring, C. Lindemann, and M. Reiser (eds.), *Performance Evaluation — Origins and Directions*, Lecture Notes in Computer Science, Springer-Verlag, 2000.
- P. G. Harrison and N. M. Patel, *Performance Modeling of Communication Networks and computer Architectures*, Addison-Wesley, 1993.
- J. Hillston, *A Compositional Approach to Performance Modelling*, Cambridge Univ. Press, 1996.
- B. R. Haverkort, *Performance of Computer Communication System: A Model-Based Approach*, Wiley, New York, 1998.
- B. R. Haverkort, R. Marie, K. S. Trivedi, and G. Rubino (eds.), *Performability Modelling Tools and Techniques*, Wiley, New York, in press.
- R. Jain, *The Art of Computer Systems Performance Analysis Techniques for Experimental Design, Measurement, Simulation, and Modeling*, Wiley, New York, 1991.
- K. Kant, *Introduction to Computer System Performance Evaluation*, McGraw Hill, New York, 1992.
- S. S. Lavenberg, *Computer Performance Modeling Handbook*, Academic Press, New York, 1983.
- E. D. Lazowska, J. Zahorjan, G. S. Graham and K. C. Sevcik, *Quantitative System Performance*, Prentice-Hall, Englewood Cliffs, NJ, 1984.
- C. Lindemann, *Performance Modelling with Deterministic and Stochastic Petri Nets*, Wiley, 1998.
- E. A. Macnair and C. H. Sauer, *Elements of Practical Performance Modeling*, Prentice-Hall, Englewood Cliffs, NJ, 1985 .
- D. A. Menasce, V. A. F. Almeida, and L. Dowdy *Capacity Planning and Performance Modeling: from Mainframes to Client-Server Systems.*, Prentice-Hall, 1994.
- M. K. Molloy, *Fundamentals of Performance Modeling*, Macmillan, New York, 1989.
- C. H. Sauer and K. M. Chandy, *Computer Systems Performance Modeling*, Prentice-Hall, Englewood Cliffs, NJ, 1981 (introductory).
- C. U. Smith, *Performance Engineering of Software Systems*, Addison-Wesley Pub. Co., 1990.

J. R. Spirn, *Program Behavior: Models and Measurements*, Elsevier, New York, 1977.

A. Thomasian, *Database Concurrency Control: Methods, Performance, and Analysis*, Kluwer, 1996.

A.2.2 Communications

V. F. Alisouskas and W. Tomasi, *Digital and Data Communications*, Prentice-Hall, Englehood Cliffs, NJ, 1985.

T. S. Rappaport, *Wireless Communications : Principles & Practice*, Prentice-Hall, Englewood, 1996.

H. Stark and F. B. Tuteur, *Modern Electrical Communications*, Prentice-Hall, Englewood Cliffs, NJ, 1979.

A. J. Viterbi, *CDMA: Principles of Spread Spectrum Communication*, Addison-Wesley, Reading, MA, 1995.

A.2.3 Analysis of Algorithms

M. Hofri, *Probabilistic Analysis of Algorithms: On Computing Methodologies for Computer Algorithms Performance Evaluation*, Springer-Verlag, New York, 1987.

D. E. Knuth, *The Art of Computer Programming*, Vol 1, *Fundamental Algorithms*, 3rd ed., Addison-Wesley, Reading, Mass., 1997 (Intermediate to Advanced).

D. E. Knuth, *The Art of Computer Programming*, Vol 2, *Seminumerical Algorithms*, 3rd ed., Addison-Wesley, Reading, Mass., 1997 (Intermediate to Advanced).

D. E. Knuth, *The Art of Computer Programming*, Vol 3, *Sorting and Searching*, 2nd ed., Addison-Wesley, Reading, Mass., 1998 (Intermediate to Advanced).

A.2.4 Simulation

K. Bagchi and G. Zobrist (eds.), *State-of-the Art in Performance Modeling and Simulation. Modeling and Simulation of Advanced Computer Systems: Applications and Systems*, Gordon & Breach Publishers, Newark, NJ, 1998.

J. Banks, J. S. Carson II, B. L. Nelson and D. M. Nicol, *Discrete-Event System Simulation*, 3rd ed., Prentice-Hall, Englewood Cliffs, NJ, 2000.

- G. S. Fishman, *Monte Carlo: Concepts, Algorithms, and Applications*, Springer-Verlag, New York, 1995.
- J. P. C. Kleijnen and W. Van Groenendaal, *Simulation: A Statistical Perspective*, Wiley, New York, 1992.
- B. L. Nelson, *Stochastic Modeling : Analysis and Simulation*, McGraw-Hill, New York, 1994.
- R. Y. Rubinstein and B. Melamed, *Modern Simulation and Modeling*, Wiley, New York, 1997.
- R. Y. Rubinstein, *Monte Carlo Optimization, Simulation and Sensitivity of Queueing Networks*, Wiley, New York, 1986.
- A. M. Law and W. D. Kelton, *Simulation Modeling and Analysis*, 2nd ed., McGraw-Hill, New York, 1991.
- T. J. Schriber, *Introduction to Simulation*, Wiley, New York, 1991.
- S. V. Hoover and R. F. Perry, *Simulation: A Problem-Solving Approach*, Addison-Wesley, Reading, MA, 1989.

A.2.5 Computer-Communication Networks

- H. Akimaru and K. Kawashima, *Teletraffic: Theory and Application*, Springer-Verlag, Heidelberg, 1993.
- D. Bertsekas, and R. Gallager, *Data Networks*, 2nd ed., Prentice-Hall, Upper Saddle River, NJ, 1992.
- J. Y. Hui, *Switching and Traffic Theory for Integrated Broadband Networks*, Kluwer, Boston, 1990.
- G. Kesidis, *ATM Network Performance*, Kluwer Academic Publishers, 1996.
- P. J. B. King, *Computer and Communication Systems Performance Modelling*, Prentice-Hall International (UK, 1990.
- D. D. Kouvatsos, *ATM Networks: Performance Modeling and Analysis*, Chapman & Hall, New York, 1996.
- K. Kummerle, J. Limb and F. Tobagi (eds.), *Advances in Local Area Networks*, IEEE Press, New York, 1987.
- D. A. Menasce and V. A. F. Almeida, *Capacity Planning for Web Performance*, Prentice-Hall, Englewood Cliffs, NJ, 1998.
- M. Moshe and R. Rom, *Multiple Access Protocols: Performance and Analysis*, Springer Verlag, 1990.

- R. O. Onvural, *Asynchronous Transfer Mode Networks: Performance Issue*, Artech House, Boston, 1993.
- K. Park and W. Willinger, *Self-Similar Network Traffic and Performance Evaluation*, Wiley, New York, 2000.
- F. Paul, *Quality of Service: Delivering QOS on the Internet and in Corporate Networks*, Wiley, New York, 1998.
- T. G. Robertazzi, *Computer Networks and Systems: Queueing Theory and Performance Evaluation*, Springer-Verlag, 2000.
- K. W. Ross, *Multiservice Loss Models for Broadband Telecommunication Networks*, Springer-Verlag, New York, 1995.
- M. Schwartz, *Broadband Integrated Networks*, Prentice-Hall, New Jersey, 1996.
- H. Takagi (ed.), *Stochastic Analysis of Computer and Communication Systems*, Elsevier Science Publishers / North-Holland, 1990.
- J. Walrand and P. Varaiya, *High-Performance Communication Networks*, 2nd ed., Morgan Kaufmann Publishers, San Francisco, 2000.

A.2.6 Operations Research

- F. H. Hillier and G. J. Lieberman, *Operations Research*, 6th ed., McGraw-Hill, New York, 1995.
- J. Moder and S. E. Elmaghraby, *Handbook of Operations Research*, Vols. 1, 2, Van Nostrand-Reinhold, New York, 1978.
- B. D. Sivazlian and L. E. Stafel, *Analysis of Systems in Operations Research*, Prentice-Hall, Englewood Cliffs, NJ, 1975.

A.2.7 Fault-Tolerant Computing

- T. Anderson and B. Randell, *Computing Systems Reliability*, Cambridge Univ. Press, New York, 1979.
- J. E. Arsenault and J. A. Roberts, *Reliability and Maintainability of Electronic Systems*, Computer Science Press, Potomac, MD, 1980.
- D. Avresky (ed.), *Hardware and Software Fault Tolerance in Parallel Computing Systems*, Ellis Horwood, UK, 1992.
- P. Jalote, *Fault Tolerance in Distributed Systems*, Prentice-Hall, Englewood Cliffs, NJ, 1994.

J.-C. Laprie (ed.), *Dependability: Basic Concepts and Terminology*, Springer-Verlag, Vienna, 1992.

P. A. Lee and T. Anderson, *Fault Tolerance: Principles and Practice*, Springer-Verlag, Vienna, 1990.

Y.-H. Lee and C. M. Krishna (eds.), *Readings in Real-Time Systems*, IEEE Press, 1993.

M. R. Lyu (ed.), *Software Fault Tolerance*, Wiley, New York, 1995.

S. Osaki and T. Nishio, *Reliability Evaluation of Some Fault-Tolerant Computer Architectures*, Lecture Notes in Computer Science, Springer-Verlag, Berlin, 1980.

D. K. Pradhan, *Fault-Tolerant Computer System Design*, Prentice Hall, Englewood Cliffs, NJ, 1996.

S. Rai and D. P. Agrawal, *Advances in Distributed Computing Network Reliability*, IEEE Press, 1990.

S. Rai and D. P. Agrawal, *Distributed Computing Network Reliability*, IEEE Press, 1990.

R. A. Sahner, K. S. Trivedi, and A. Puliafito, *Performance and Reliability Analysis of Computer System: An Example-Based Approach Using the SHARPE Software Package*, Kluwer Academic Publishers, Boston, 1996.

D. P. Siewiorek and R. S. Swarz, *Reliable Computer Systems: Design and Evaluation*, 3rd, ed., A. K. Peters, Natick, MA, 1998.

A.2.8 Software Reliability

M. R. Lyu (ed.), *Handbook of Software Reliability Engineering*, McGraw-Hill, New York, 1995.

J. D. Musa, *Software Reliability Engineered Testing (Software Development)*, McGraw-Hill, New York, 1998.

J. D. Musa, A. Iannino and K. Okumoto, *Software Reliability : Measurement, Prediction, Application*, McGraw-Hill, New York, 1986.

M. L. Shooman, *Software Engineering: Reliability, Development and Management*, McGraw-Hill, New York, 1980.

N. D. Singpurwalla and S. P. Wilson, *Statistical Methods in Software Engineering: Reliability and Risk*, Springer-Verlag, New York, 1999.

M. Xie, *Software Reliability Modeling*, World Scientific, Singapore, 1991.

A.2.9 Numerical Solutions

G. H. Golub and C. F. Van Loan, *Matrix Computations*, 2nd ed., Johns Hopkins Univ. Press, Baltimore, 1989.

W. Grassman (ed.), *Computational Probability*, Kluwer Academic Publishers, Amsterdam, 2000.

C. Meyer and R. J. Plemmons (eds.), *Linear Algebra, Markov Chains, and Queueing Models*, IMA Volumes in Mathematics and its Applications, Vol. 48, Springer-Verlag, Heidelberg, 1993.

M. F. Neuts, *Matrix-Geometric Solutions in Stochastic Models: An Algorithmic Approach*, Dover, New York, 1995.

W. J. Stewart, *Introduction to the Numerical Solution of Markov Chains*, Princeton Univ. Press, Princeton, NJ, 1994.

W. J. Stewart (ed.), *Computation with Markov Chains*, Kluwer Academic Publishers, Boston, 1995.