

Publications Henk Tijms

Papers

1. The optimality of (s, S) inventory policies in the infinite period model, *Statistica Neerlandica*, 25 (1971), 29-43.
2. A counterexample in discounted dynamic programming (with A. Hordijk), *Journal of Mathematical Analysis and Applications*, 39 (1972), 455-457.
3. On the D -policy for the $M/G/1$ queue (with K.R. Balachandran), *Management Science*, 19 (1973), 1013-1018.
4. The method of successive approximations and Markov decision problems (with A. Hordijk), *Operations Research*, 22 (1974), 519-521.
5. A control policy for a priority queue with removable server, *Operations Research*, 22 (1974), 833-837.
6. An iterative method for approximating average cost optimal (s, S) inventory policies, *Zeitschrift für Operations Research*, 18 (1974), 215-223.
7. Convergence results and approximations for optimal (s, S) policies (with A. Hordijk), *Management Science*, 20 (1974), 1432-1438.
8. On a conjecture of Iglehart (with A. Hordijk), *Management Science*, 21 (1975), 1342-1345.
9. A modified form of the iterative method of dynamic programming (with A. Hordijk), *The Annals of Statistics*, 3 (1975), 203-208.
10. The asymptotic behaviour of the minimal total expected discounted cost for the denumerable state Markov decision model (with A. Hordijk and P.J. Schweitzer), *Journal of Applied Probability*, 12 (1975), 298-305.
11. A simple proof of the equivalence of the limiting distributions of the continuous-time and embedded process of the queue size in the $M/G/1$ queue with A. Hordijk), *Statistica Neerlandica*, 30 (1976), 97-100.
12. Optimal control of the workload in an $M/G/1$ queue with removable server, *Mathematische Operationsforschung und Statistik*, 7 (1976), 933-943.
13. On a switch-over policy for controlling the workload in a queueing system with two constant service rates and fixed switch-over costs, *Zeitschrift für Operations Research*, 21 (1977), 19-32.
14. Exponential convergence of products of stochastic matrices (with J.M. Anthonisse), *Journal of Mathematical Analysis and Applications*, 59 (1977), 360-364.
15. A general Markov decision method, I: model (with G. de Leve and A. Federgruen), *Advances of Applied Probability*, 9 (1977), 296-315.
16. A general Markov decision method, II: applications (with G. de Leve and

- A. Federgruen), *Advances of Applied Probability*, 9 (1977), 316-335.
17. The optimality equation in average cost denumerable state semi-Markov decision problems, recurrency conditions and algorithms (with A. Federgruen), *Journal of Applied Probability*, 15 (1978), 356-373.
 18. Contraction mappings underlying undiscounted Markov decision problems (with A. Federgruen and P.J. Schweitzer), *Journal of Mathematical Analysis and Applications*, 65 (1978), 711-730.
 19. A note on simultaneous recurrence conditions on a set of denumerable stochastic matrices (with A. Federgruen and P.J. Schweitzer), *Journal of Applied Probability*, 15 (1978), 842-847.
 20. Inventory control with two switch-over levels for a class of $M/G/1$ queueing systems with variable arrival and service rate, *Stochastic Processes and Their Applications*, 6 (1978), 213-222.
 21. Denumerable state semi-Markov decision processes with unbounded costs, average cost criterion (with A. Federgruen and A. Hordijk), *Stochastic Processes and Their Applications*, 9 (1979), 223-235.
 22. Computation of the stationary distribution of the queue size in an $M/G/1$ queueing system with variable service rate (with A. Federgruen), *Journal of Applied Probability*, 17 (1980), 515-522.
 23. Approximations for the steady-state probabilities in the $M/G/c$ queue (with M.H. van Hoorn and A. Federgruen), *Advances of Applied Probability*, 13 (1981), 186-206.
 24. Algorithms for the state probabilities and waiting times in single server queueing systems with random and quasi-random input and phase-type service times (with M.H. van Hoorn), *OR Spektrum*, 2 (1981), 145-152.
 25. Approximations for the waiting time distribution of the $M/G/c$ queue (with M.H. van Hoorn), *Performance Evaluation* 2 (1982), 22-28.
 26. Tables for $M/G/c$ queueing systems with phase-type service (with H. Groenevelt and M.H. van Hoorn), *European Journal of Operational Research*, 16 (1984), 257-269.
 27. Simple approximations for the reorder point in periodic and continuous review (s, S) inventory systems with service level constraints (with H. Groenevelt), *European Journal of Operational Research*, 17 (1984), 175-190.
 28. Coordinated replenishments in a multi-item inventory system with compound Poisson demand (with A. Federgruen and H. Groenevelt), *Management Science*, 30 (1984), 344-357.
 29. Approximations for the single-product production-inventory problem with compound Poisson demand and service levels constraints (with A.G. de Kok and F.A. van der Duyn Schouten), *Advances of Applied Probability*, 16 (1984), 378-401.
 30. Approximations for the conditional waiting times in the $GI/G/1$ queue

- (with L.P. Seelen), *Operations Research Letters*, 3 (1984), 183-190.
31. Inventory levels to stop and restart a single machine producing one product (with A.G. de Kok), *European Journal of Operational Research*, 20 (1984), 239-247.
 32. A Markov decision algorithm for optimal inspections and revisions in a maintenance system with partial information (with F.A. van der Duyn Schouten), *European Journal of Operational Research*, 21 (1985), 245-253.
 33. A queueing system with impatient customers (with A.G. de Kok), *Journal of Applied Probability*, 22 (1985), 688-689.
 34. A two-moment approximation for a buffer design problem requiring a small rejection probability (with A.G. de Kok), *Performance Evaluation* 5 (1985), 77-84.
 35. A simple technique in Markovian control with applications to resource allocation in communication networks (with A.M. Eikeboom), *Operations Research Letters* 5 (1986), 25-32.
 36. Waiting-time percentiles in the multi-server $M^X/G/c$ queue with batch arrivals (with A.M. Eikeboom), *Probability in the Engineering and Informational Sciences*, 1 (1986), 75-96.
 37. Asymptotic analysis for buffer behavior in communication systems (with J.C.W. van Ommeren), *Probability in the Engineering and Informational Sciences*, 3 (1989), 1-12.
 38. A simple numerical approach for infinite-state Markov chains (with M.C.T. van de Coevering), *Probability in the Engineering and Informational Sciences*, 5 (1991), 285-295.
 39. Heuristics for finite buffer queues, *Probability in the Engineering and Informational Sciences*, 6 (1992), 277-285.
 40. Comparison of two approximations for the loss probability in finite-buffer queues (with M. Miyazawa), *Probability in the Engineering and Informational Sciences*, 7 (1993), 19-27.
 41. Invariant probabilities with geometric tails (with J.B. Lasserre), *Probability in the Engineering and Informational Sciences*, 10 (1996), 213-222.
 42. A simple heuristic for buffer design in finite-capacity queues (with F. Gouweleeuw), *European Journal of Operational Research*, 88 (1996), 592-598.
 43. A heuristic rule for routing customers to parallel servers (with S.Sassen and R.D. Nobel), *Statistica Neerlandica*, 51 (1997), 107-121.
 44. Computing loss probabilities in discrete-time queues (with F. Gouweleeuw), *Operations Research*, 46 (1998), 149-154.
 45. A multi-server queue with impatient customers (with N.K. Boots), *Management Science* 45 (1999), 444-448.
 46. An $M/M/c$ queue with impatient customers (with N.K. Boots), TOP

- (1999), 213-220.
47. Optimal control of a queueing system with heterogeneous servers and setup costs (with R.D. Nobel), *IEEE Transactions on Automatic Control*, 45 (2000), 780 - 784.
48. A fast algorithm for the transient reward distribution in continuous-time Markov chains (with R. Veldman), *Operations Research Letters*, 26 (2000), 155-158.
49. Markov processes on a semi-infinite strip and the geometric tail algorithm (with D.J. van Vuuren), *Annals of Operations Research*, 113 (2002), 133-140.
50. A real-world stochastic two-person game (with J. van der Wal), *Probability in the Engineering and Informational Sciences*, 20 (2006), 599-608.
51. Waiting-time probabilities in the M/G/1 retrial queue (with R. D. Nobel), *Statistica Neerlandica*, 60 (2006), 73-79.
52. New and old results for the M/D/c queue, *International Journal for Electronics and Communications*, 60 (2006), 125-130.
53. Negative probabilities at work in the M/D/1 queue (with Koen Staats), *Probability in the Engineering and Informational Sciences* 21 (2007), 1-7.

Books

1. Tables For Multi-Server Queues (with L.P.Seelen and M.H. van Hoorn), North-Holland, 1985.
2. Stochastic Modelling and Analysis: A Computational Approach, Wiley, 1986.
3. Exploring Operations Research & Statistics In The Micro Lab (with E.Kalvelagen), Prentice-Hall, 1990.
4. Stochastic Models: An Algorithmic Approach, Wiley, 1994.
5. Modelbouw in de Operations Research (in Dutch, with E.Kalvelagen), Academic Service, 1994.
6. Spelen met Kansen (in Dutch), Epsilon Uitgeverij, 1999, second edition in 2002.
7. Poisson, de Pruisen en de Lotto (with F.Heierman en R.D. Nobel), 2000.
8. Operationele Analyse (in Dutch), Epsilon Uitgeverij, 2002 , second edition in 2004.
9. A First Course to Stochastic Models, Wiley, 2003.
10. Understanding Probability, Chance Rules in Everyday Life, Cambridge University Press, 2004, second edition 2007.

Edited Books

1. Markov Decision Theory (editor with J. Wessels), Mathematical Centre Tract 93, 1977.
2. Teletraffic Analysis and Computer Performance Evaluation (editor with O.J. Boxma and J.W. Cohen), North-Holland, 1986.
3. Twenty-Five Years of Operations Research in the Netherlands (editor with J.K. Lenstra and T. Volgenant), CWI Tract 70, 1997.