

## CURRICULUM VITAE

Name: **Stein William Wallace**  
Born: August 11th 1956  
Nationality: Norwegian  
Title: Dr.scient.  
Profession: Professor  
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### Education

Cand.mag: (B.Sc.) in mathematics, informatics and economics at the Faculty of Mathematics and Natural Sciences at the University of Bergen, Norway, (1977–1979).  
Cand.real: (M.Sc.) in informatics at the Department of Mathematics at the University of Bergen, Norway, (1980–1981). Thesis supervisor: Sverre Storøy. Thesis title: Enumeration Algorithm in Linear Programming. (Written in Norwegian).  
Dr.scient: (Ph.D) in informatics at the Department of Informatics at the University of Bergen, Norway, (1982–1984). Thesis supervisors: Sverre Storøy and Roger J-B Wets. Thesis title: Enumerative methods for stochastic programs with network recourse.

### Permanent positions

1999– Professor of quantitative logistics, Molde University College, full time from 2001.  
1990–2004 Professor of Operations Research, The Norwegian University of Science and Technology Full time until 2001.  
1988–90 Associate professor at Haugesund Maritime College.  
1981–88 Senior Scientist at Chr. Michelsen Institute, on Fishery Economics and Management (1981-84), Petroleum Economics (1984-88).

### Part time and visiting positions

2007 Honorary Visiting Professor, Chinese University of Hong Kong (6 months)  
2006–07 Visiting Professor, IBM Watson Research Center, Yorktown Heights, NY (8 months).  
2006 Visiting scholar, Columbia Business School, NY (3 months).  
2004 Visiting lecturer, Department of statistics and operations research, University of Malta.  
2001 Operational Research Society of New Zealand visiting lecturer.  
2000–01 Group leader, Centre for advanced study, Oslo (10 months).  
1996–97, 00 Visiting Professor, ENSGI / INPG, Grenoble, France (10 months and 1 month).  
1994 Visiting Professor, University of Linköping, Sweden (1 month).  
1993 Visiting scientist, University of Zürich (3 months).  
1991– Scientific Advisor to Sintef  
1989, 90,91,92 Visiting scientist at the Science Institute, University of Iceland.  
1988 and 89 Visiting Scholar, Dept. of Mathematics, University of California at Davis (3 months).  
1985–86 Visiting Assistant Professor at Dept. of Mathematics, University of Washington, Seattle.  
1982 Visiting Scholar at Center for Cybernetic Studies, University of Texas at Austin, Texas, USA.  
1982–86 Lecturer at graduate level on linear and non-linear programming, at the Dept. of Informatics, University of Bergen (Spring '82), on linear programming and network flows (Spring '84/Spring '86), stochastic programming (Fall'84/Spring '85) and modelling (Fall '86). Leading seminar in risk theory (Spring '83).  
1980–81 Research Assistant (Vitenskaplig assistent) at the Dept. of Mathematics, University of Bergen.

1980 Computer programmer at Kommunedata Vestlandet (July-August).  
1978–81 Teaching Assistant at the Dept. of Mathematics, University of Bergen,

#### **Other appointments and duties.**

2003–05 Department vice chairman.  
2003– Study leader for master and doctoral studies (administrative position)  
2002– Chair of doctoral committee, Molde University College  
1997–99 Section leader for business administration and operations research  
1993–99 International Officer at faculty level (from 1996 department level),  
with special responsibility for ERASMUS.  
1991–96 Department Vice-chairman

#### **Doctoral students**

Nils Jacob Berland (Cand.Scient.) 1990, (Dr.scient.) 1993. Stochastic programming and parallel processing.  
Kjetil Høyland (Dr.ing.) 1998. Asset liability management for a life insurance company.  
A stochastic programming approach.  
Asgeir Tomasgard (Dr.ing.) 1998. Telecommunications and stochastic programming.  
Nina Detlefsen (Dr.ing.) 1999. Basis properties in multi-commodity networks  
Trond Jørgensen (Dr.ing.) 1999. Project scheduling as a stochastic dynamic decision problem.  
Stein-Erik Fleten (Dr.ing.) 2000. Portfolio management in the energy sector.  
Bård Reitan (Dr.ing.) 2003. Quantative methods for strategic planning in telecommunications.  
Michal Kaut (Dr.ing.) 2003. Portfolio management in insurance.  
Erling Pettersen (Dr.ing.) 2004. End user portfolios in electricity markets.  
Arnt-Gunnar Lium (PhD) 2006. Stochastic service network design.  
Bjørnar Aas (PhD) Supply base logistics, scheduled 2007.  
Biju Kumar Thapalia (PhD) Stochastic distribution planning, scheduled 2008.  
Hajnalka Vaagen (PhD) Lean production, scheduled 2009.

Thesis supervisor for more than 50 master’s-students.

#### **Doctoral committees**

Birger Moe Trondheim, 1991. *Stochastic methods in energy planning*.  
Claus Carøe Copenhagen, 1998. *Stochastic integer programming*  
Pavel Popela Prague, 1998. *Stochastic programming*.  
Thore Jonsbråten Bergen, 1998. *OR in the petroleum sector*.  
Karen Lau Sydney, 1999. *Stochastic quadratic programming*.  
Lyès Benyoucef Grenoble, 2000. *Synchronous delivery in the car industry*.  
Valentina Bosetti Milano, 2002. *Stochastic programming and decision theory in the management of natural resources*.  
Mark C. Stewart Christchurch, New Zealand, 2003. *Stochastic integer programming in telecommunications*.  
Fredrik Altenstedt Gothenburg, 2003. *Stochastic programming and finance*.  
Leif Olsson Umeå, Sweden, 2004. *Stochastic programming in forestry*.  
Jacob Lemming Copenhagen, Denmark, 2004. *Risk and electricity markets*.

#### **Evaluation Committees**

Dosentur (Associate Professor) in Business Administration, Molde Regional College, 1992.  
Professorship in business administration, NTH, 1992.  
Amanuensis in statistics, Rogaland Regional College, 1992.  
“Docentur” in optimization, Linköping, 1993.  
Amanuensis in Business Studies, Stord/Haugesund College, 1995.  
Professorship in production economics, NTNU, 1996.

Professorship in business administration, NTNU, 1996.  
Professorship in computer science, Stavanger College, 1999.  
Amanuesis in economics, Stord/Haugesund College, 1999.  
College lecturer in logistics, The Norwegian Defense, 2002.  
Associate professor, information science, University of Bergen, 2004.  
Associate professor in logistics, The Norwegian Defence, 2005.  
Professor in Management Science, University of Canterbury, New Zealand, 2005.  
Promotion cases: USA(6), Canada (1), Israel (1), UK (1), NZ (1).

### Editorial Board

- Associate editor of *INFORMS (ORSA) Journal on Computing*, 1990–
- Co-editor of *Production Planning & Control*, 1998–2000, member of International Editorial Board, 2000–
- Associate editor in the stochastic programming e-print series. 1999–
- Associate editor of *Optimization and Engineering*, 2003–

### Other editorial duties.

- Editor of *Algorithms and Model Formulations in Mathematical Programming*. Proceedings of the NATO Advanced Research Workshop in Bergen, June 15-19, 1987, Springer Verlag, Berlin (1989).
- Editor of *Nordic Cooperation on Marine Multispecies Research*. Report from a Nordic conference on the same theme in Haugesund, August 31 to September 1, 1989.
- Guest coeditor of Volume 64 (1996) of *Annals of Operations Research* on Stochastic programming, algorithms and models. (With Julia Higle and Suvrajeet Sen).
- Guest editor of Volume 82 (1998) of *Annals of Operations Research* on Modelling in memory of Åsa Hallefjord.
- Guest editor of special issue of *Journal of Mathematical Modelling and Algorithms on Quantitative models in transportatation and logistics*. (With Arne Løkketangen and Teodor G. Crainic.)

### Professional organizations

- Elected international liason for Europe and Africa in the Transportation Science and Logistics Society in INFORMS. 2006–
- Elected chair of The Committee on Stochastic Programming (COSP) in The Mathematical Programming Society (MPS), 1992–95, member of the committee 1995-2001.
- Appointed member of The Committee on Algorithms (COAL) in MPS, 1986–1994.
- Appointed member of the MPS Membership Committee 1990–1996.
- Appointed member of the MPS Applications Committee 1996–1997.
- Elected leader of the Nordic Section of MPS. 1990–94.
- Norwegian representative in TC7 of The International Federation for Information Processing (IFIP), 1996–2000
- Member of Working Group 7.7: Stochastic Optimization, IFIP, since the start of the WG.
- Member of The Institute for Operations Research and Management Sciences (INFORMS).
- Member of Working Group 7.4: Discrete Optimization under IFIP, 1997–

### Organizing conferences

- Director (NATO terminology) of the NATO Advanced Research Workshop: Algorithms and Model Formulations in Mathematical Programming, held on behalf of The Committee on Algorithms (COAL) of the Mathematical Programming Society at Chr. Michelsen Institute, Bergen, Norway, June15–19, 1987.
- Nordic Conference on Marine Multispecies Research, held at Haugesund Maritime College on behalf of The Nordic Council of Ministers, August 31 to September 1, 1989.
- Chairman of the program committee for the 1990 Nordic Meeting of The Mathematical Programming Society in Copenhagen, August 25–26.

- Member of the International Program Committee for EURO XII/TIMS XXXI meeting in Helsinki, 1992.
- Member of International Scientific Committee for the Sixth International Conference on Stochastic Programming, Italy, 1992.
- Chairman of the local committee for the 1992 Second Nordic Meeting of The Mathematical Programming Society in Trondheim.
- Member of the organizing committee for the 1993 Nordic OR Meeting in Trondheim.
- Organizer of an IFIP Workshop on “Stochastic Programming — Algorithms and Models” at Lillehammer, Norway, 1994.
- Member of the International Advisory Committee for the 15th International Symposium on Mathematical programming, Ann Arbor, 1994.
- Organizer of a Nordic Research Course in stochastic programming, January 1994. Financed by NorFA. Invited speakers: Roger J-B Wets and Alan King.
- Organizer of a Nordic meeting on stochastic integer programming in Linköping, Sweden, May 8–10, 1994.
- Member of International Scientific Committee, VII International Conference on Stochastic Programming, Nahariya, Israel, 1995.
- Member of International Advisory Committee for the 16th International Symposium on Mathematical programming, Lausanne, 1997.
- Member of International Program Committee for the 18th IFIP TC7 Conference in Detroit, 1997.
- Organizer of a Nordic Research Course in model analysis, August, 1997. Supported by NorFA. (With Nina Detlefsen.) Invited speakers: Harvey Greenberg and Fred Murphy.
- Member of International Programme Committee for the VIII International Conference on Stochastic Programming, Vancouver, 1998.
- Member of International Organizing Committee, 26th International Computers and Industrial Engineering Conference, Melbourne, Australia, 1999.
- Member of Program Committee for the 19th IFIP TC7 Conference in Cambridge, UK, 1999.
- Member of Program Committee for national meeting to celebrate that year 2000 is the year of mathematics. Trondheim, 2000.
- Organizer of workshop on decision making under uncertainty, financed by the Centre for Advanced Study, Norwegian Academy of Science and Letters. Molde, May 2001.
- Member of International Program Committee for the 9th International Conference on Stochastic Programming, Berlin, 2001.
- Member of International Committee for APMOD 2002 in Italy.
- Organizer of Nordic Research Course on Multimodal Transportation in Quantitative Logistics, Molde, April 2003. Financed by NorFA. Main invited speaker: Teodor G. Crainic.
- Member of organizing committee, ECCO XVI, Molde, 2003.
- Member of local organizing committee for the 18th International Symposium on Mathematical Programming, Copenhagen, 2003.
- Member of Program Committee for the 10th International Conference on Stochastic Programming, Tucson, 2004.
- Organizer of conference on Transportation and Logistics (TraLog), Molde University College, August 2004. Financed by The Norwegian Research Council.
- Organizer of national conference on the transportation of live animals, Molde University College, June 2005.
- Organizer of international workshop on Stochastics in Transportation and Logistics, Molde University College, June 2006.
- Member of scientific committee for International Workshops on Distribution Logistics, Brescia, Italy, October 2006.

## Books

- 1 *The Nordic Fisheries Management Model*, Nord 1994:4, The Nordic Council of Ministers, Copenhagen, 1994, pp. 105. (With Snjólfur Ólafsson, University of Iceland).

- 2 *Stochastic Programming*, Wiley, Chichester, 1994. (With Peter Kall, University of Zürich.) Reprinted 1995, 1997.
- 3 *Operasjonsanalyse*, Cappelen Akademisk Forlag, Oslo, 1999. (With Kurt Jørnsten and Sverre Storøy.) (Basic OR textbook in Norwegian.)
- 4 *Applications of Stochastic Programming*, MPS-SIAM Series on Optimization, Philadelphia, 2005. (Edited with William T. Ziemba, University of British Columbia).

## Refereed publications

- 5 On degeneracy in enumeration. *BIT* 23 (1983) 267–270.
- 6 Decomposing the requirement space of a transportation problem into polyhedral cones. *Mathematical Programming Study* 28 (1986) 29–47.
- 7 Incidence matrix for a transportation problem. Problem 85-2 in *SIAM Review* 27 (1985).
- 8 A two-stage stochastic facility-location problem with time-dependent supply. In Y. Ermoliev and R. J-B Wets (eds.), *Numerical Techniques in Stochastic Optimization*, Springer Verlag, Berlin (1988) 489–514.
- 9 Pivoting rules and redundancy schemes in extreme point enumeration. *BIT* (1985) 274–280.
- 10 Optimal fleet size when national quotas can be traded. *Marine Resource Economics* (1986) 315–329. (With K. Brekke)
- 11 Refining bounds for stochastic linear programs with linearly transformed independent random variables. *Operations Research Letters* 5 (1986) 73–77. (With John R. Birge, University of Michigan)
- 12 Solving stochastic programs with network recourse. *Networks* 16 (1986) 295–317.
- 13 Investing in arcs in a network to maximize the expected max flow. *Networks* 17 (1987) 87–103.
- 14 A piecewise linear upper bound on the network recourse function. *Mathematical Programming* 38 (1987) 133–146.
- 15 A comment on Inspection and Maintenance Optimization Methods by K.M.Mjelde. *European Journal of Operational Research* 28 (1987) 226–227. (With Å. Hallefjord, K. Jørnsten and S. Storøy.)
- 16 Bounds on the expected maximal value of a class of stochastic network problems. *INFOR* 26 (1988) 153–162.
- 17 A separable piecewise linear upper bound for stochastic linear programs. *SIAM Journal of Control and Optimization* 25 (1988) 725–739. (With J. R. Birge.)
- 18 Solving many linear programs that differ only in the righthand side. *European Journal of Operational Research* 37 (1988) 318–324. (With D. Haugland, Chr. Michelsen Institute, Bergen.)
- 19 Bounding the expected time-cost curve for a stochastic PERT network from above. *Operations Research Letters* 8 (1989) 89–94.
- 20 Preprocessing in stochastic programming - The case of uncapacitated networks. *ORSA Journal on Computing* 1 (1989) 252–270. (With Roger J-B Wets).
- 21 Approximate scenario solutions in the progressive hedging algorithm. *Annals of Operations Research*, 31 (1991) 425–444. (With Thorkell Helgason).
- 22 Structural properties of the progressive hedging algorithm. *Annals of Operations Research*, 31 (1991) 445–456. (With Thorkell Helgason).
- 23 Preprocessing in stochastic programming - The case of linear programs. *ORSA Journal on Computing*, 4 (1992) 45–59. (With Roger J-B Wets).
- 24 Overcoming the (apparent) problem of inconsistency in O-D matrix estimations. *Transportation Science*, 27 (1993) 374–380. (With Kurt Jørnsten).
- 25 The facets of the polyhedral set determined by the Gale-Hoffman inequalities. *Mathematical Programming* 62 (1993) 215–222. (With Roger J-B Wets.)
- 26 Bounding multistage stochastic linear programs from above. *Mathematical Programming* 61 (1993) 111–130. (With Tiecheng Yan, Suzhou, China.)
- 27 Preprocessing in stochastic programming: The case of capacitated networks. *ORSA Journal on Computing* 7 (1995) 44–62. (With Roger J-B Wets.)
- 28 Feasibility in uncapacitated networks: The effect of individual arcs and nodes. *Annals of Operations Research* 64 (1996) 197–210. (With Saied Ghannadan)

- 29 Feasibility in capacitated networks: The effect of individual arcs and nodes. *Annals of Mathematics and Artificial Intelligence* 17 (1996) 145–153. (With Saied Ghannadan.)
- 30 Solving linear programs with multiple right-hand sides: Pricing and ordering schemes. *Annals of Operations Research* 64 (1996) 237–259. (With Horand I. Gassmann.)
- 31 Feasibility in transportation networks with supply eating arcs. *Networks* 31 (1998) 165–176. (With Shane Dye and Asgeir Tomasgard.)
- 32 Option theory and modeling under uncertainty. In *Essays in honour of Bjørn Nygreen on his 50th birthday*, Department of Managerial Economics and Operations Research, NTNU (eds. E. Matson, A. Tomasgard, E. Meistad and S. Dye), 1996, pp. 147–167. (With Daniel Christiansen, Albion College.) Also *Annals of Operations Research* 82 (1998) 59–82.
- 33 Modelling aspects of distributed processing in telecommunications networks. *Annals of Operations Research* 82 (1998) 161–184. (With A. Tomasgard, S. Dye, Jan A. Audestad, L. Stougie and M. van der Vlerk.)
- 34 Work patterns in project scheduling. *Annals of Operations Research* 82 (1998) 1–8. (With Å. Hallefjord, Norske Shell.)
- 35 Decision making under uncertainty: Is sensitivity analysis of any use? *Operations Research*, 48 (2000) 20–25.
- 36 Résolution d'un problème d'ordonnancement dynamique dans un contexte de "livraison synchrone": cas trois produits. *Journal Européen des Systèmes Automatisés* 34 (2000) 1253–1276. (With Lyès Benyoucef, Yannick Frein and Bernard Penz.)
- 37 Improving project cost estimation by taking into account managerial flexibility. *European Journal of Operational Research* 127 (2000) 239–251. (With Trond Jørgensen.)
- 38 Scenarios for multistage stochastic programs. *Annals of Operations Research* 100 (2000) 25–53. (With Jitka Dupacova, Charles University, Prague and Giorgio Consigli, UniCredit, Milano.)
- 39 Generating scenario trees for multi-stage decision problems. *Management Science* 47 (2001) 295–307. (With K. Høyland.)
- 40 Stochastic programs with recourse: Upper bounds. In C.A. Floudas and P.M. Pardalos (eds), *Encyclopedia of Optimization* 5 (2001) 346–350, Kluwer Academic Publishers. (With Chanaka Edirisinghe, The University of Tennessee.)
- 41 Preprocessing in stochastic programming. In C.A. Floudas and P.M. Pardalos (eds), *Encyclopedia of Optimization* 4 (2001) 360–363, Kluwer Academic Publishers.
- 42 Analyzing legal regulations in the Norwegian life insurance business using a multistage asset liability management model. *European Journal of Operational Research* 134 (2001) 293–308. (With Kjetil Høyland.)
- 43 Hedging electricity portfolios via stochastic programming. In C. Greengard and A. Ruszcynski (eds.), *Decision Making under Uncertainty: Energy and Power*. The IMA Volumes in Mathematics and its Applications, Volume 128 (2002) 71–94. Springer, New York. (With Stein-Erik Fleten and William Ziemba.)
- 44 The simplex algorithm for multicommodity networks. *Networks* 39-1 (2002) 15–28. (With Nina Detlefsen.)
- 45 The performance of stochastic dynamic and fixed mix portfolio models. *European Journal of Operational Research* 140 (2002) 37–49. (With Kjetil Høyland and Stein-Erik Fleten.)
- 46 Managing risk in the new power business - a sequel. *IEEE Computer Applications in Power* April (2002) 12–19. (With Julia Higle.)
- 47 Developing and implementing a stochastic decision-support model within an organizational context: Part I – The model. *Journal of Risk Finance* 4 (2003) 55–60. (With Kjetil Høyland and Erik Ranberg.)
- 48 A heuristic for moment-matching scenario generation. *Computational Optimization and Applications* 24 (2003) 169–185. (With Michal Kaut and Kjetil Høyland.)
- 49 Sensitivity analysis and uncertainty in linear programming. *INTERFACES* 33(4) (2003) 53–60. (With Julia Higle.)
- 50 Stochastic programming models in energy. Chapter 10 in *Stochastic Programming* in the series *Handbooks in operations research and management Science*, Vol. 10 (2003) 637–677, Elsevier, Amsterdam. (With Stein-Erik Fleten.)

- 51 Dalton transfers, inequality and altruism. *Social Choice and Welfare* 22(3) (2004) 447–465. (With Dominique Thon.)
- 52 Equity in dyads; the notion of more equitable. *Rationality and Society* 16 (2004) 191–224. (With Dominique Thon.)
- 53 Developing and implementing a stochastic decision-support model within an organizational context: Part II – The organization. *Journal of Risk Finance* 5 (2004) 58–63. (With Kjetil Høyland and Erik Ranberg.)
- 54 Developing and implementing a stochastic decision-support model within an organizational context – The experience. *Journal of Risk Finance* 6:1 (2005) 40–46. (With Kjetil Høyland and Erik Ranberg.)
- 55 An Electricity Market Game between Consumers, Retailers and Network Operators. *Journal of Decision Support System* 40:3-4 (2005) 427-438. (With Andy Philpott and Erling Pettersen.)
- 56 Stochastic programming: Potential hazards when random variables reflect market interaction. *Annals of Operations Research* 142 (2006) 121-129. (With Kjetil K. Haugen.)
- 57 Using ALM in a Norwegian life insurance company. To appear in *Handbook of Asset and Liability Management* in the series *Handbooks in Finance*, North-Holland. (With Kjetil Høyland.)
- 58 Optimization model for a livestock collection problem. *International Journal of Physical Distribution and Logistics Management* 36:2 (2006) 136–152. (With Irina Gribkovskaia, Bjørn O. Gullberg and Karl J. Hovden.)
- 59 Stochastic programming and the option of doing it differently. To appear in *Annals of Operations Research*.
- 60 Evaluation of scenario-generation methods for stochastic programming. To appear in *Pacific Journal of Optimization*. Posted as SPEPS 14-2003. (With Michal Kaut).
- 61 Correlations in Stochastic Programming: A Case from Stochastic Service Network Design. To appear in *Asian Pacific Journal of Operational Research*. (With Arnt-Gunnar Lium and Teodor G. Crainic).

**Publications (not refereed).** (If only English title, the paper is written in English)

- 62 Betydningen av råstofftype og kapasitetsutnyttning på sildemelfabrikkenes totalresultat. (The economic effect of different species mixes and capacity usage in the fish-meal industry.) *Fiskets Gang* 68 (1982) 451–452.
- 63 Stordriftsfordeler i sildemelindustrien. (Economics of scale in the fish-meal industry.) *Fiskets Gang* 68 (1982) 449–450.
- 64 Økonomien i en nedbygget sildenæring. (The economy in a reduced fish-meal industry.) *Fiskets Gang* 68 (1982) 369–371.
- 65 Utjamning og utsetjing av haustloddefisket. (Stretching and delaying the fall capelin fishery.) *Fiskets Gang* 70 (1984) 137–138. (With S.D. Flåm, R. Hannesson and S. Tjelmeland.)
- 66 Generating production profiles for an oil field. In *Mathematical Modelling in Science and Technology*. Proceedings of Fifth ICMM, University of California, Berkeley (eds. X.J.R. Avula, G. Leitman, C.D. Mote, Jr. and E.V. Rodin), Pergamon Press, New York 1987, pp. 681–686. (With A. Nystad and C. Helgesen, Chr. Michelsen Institute, Bergen.)
- 67 A standard format for multiperiod stochastic linear programs. *COAL Newsletter* 17 (1987) 1–19. (With J.R. Birge, M.A.H. Dempster, H. Gassmann, E. Gunn and A.J. King.)
- 68 Parallel challenges in stochastic programming. Proceedings of NIK’89 – The Norwegian Informatics Conference, 51–60.
- 69 Modelling quota systems. Proceedings of the conference Multispecies management - A Barents Sea of possibilities, 45–63. Tromsø (1990). (With Thorkell Helgason.)
- 70 Stochastic programming on networks. Proceedings from *Statistical Methods for Decision Processes*, Daimler-Benz/IFIP Workshop, Nürtingen, Germany (1992), 107–137.
- 71 Business education in Norway. Proceedings from a conference on Erasmus and Socrates in Business Studies, organized by the European Commission, DGXII, Rotterdam (1995) 177-201.
- 72 Feasibility in bipartite uncapacitated networks. In *Essays in honour of Bjørn Nygreen on his 50th birthday*, Department of Managerial Economics and Operations Research, NTNU (eds. E. Matson, A. Tomasgard, E. Meistad and S. Dye), 1996, pp. 211–230. (With Shane Dye and Asgeir Tomasgard.)
- 73 Kapitalforvaltning i et livselskap. (Portfolio management in a life insurance company.) *Økonomi og ledelse* 2 (1997) 71–84. (With K. Høyland, E. Ranberg and S. Westgaard.)

- 74 Portfolio management in a deregulated hydropower based electricity market. In E. Broch, D. K. Lysne, N. Flatabø and E. Helland-Hansen (eds.) *Hydropower '97*, A.A. Balkema, Amsterdam, 1997. (With Stein-Erik Fleten and William Ziemba.)
- 75 Power scheduling with power contracts. Proceedings of the fifth meeting of the Nordic MPS, Molde, 1998. (With Stein-Erik Fleten.)
- 76 En fengslende mattetime. In "Teller matte?", a book on the fun of mathematics for high school students, issued by Norsk Matematikkråd, 82–84, 1999. (Subject: Prisoner's dilemma.) (With Nils Kristian Rossing and Anne Karin Wallace).
- 77 Produksjonsplanlegging og risikostyring i et deregulert kraftmarked med finansielle instrumenter. (Production planning and risk management in a deregulated power market with financial instruments.) *Magma* 4, No 5 (2001) 22–33. (With Stein-Erik Fleten and Asgeir Tomasgard.)
- 78 Bookmobile routing and scheduling in Buskerud County. Proceedings of Twenty Naught One, the 36th annual meeting of the New Zealand Operational Research Society, Christchurch, New Zealand, November, 2001. (With Les Foulds, John Wilson and Liv Sagvolden).
- 79 Exploring beliefs in modeling decision making: optimising and cost cutting versus risk and vulnerability. Proceedings of the 5th Conference on Technology, Policy and Innovation "Critical Infrastructures", in Delft, The Netherlands, June 26-29, 2001. (With Jan Hovden and Ragnar Rosness.)
- 80 Power generation planning and risk management in a liberalized market. Proceedings of IEEE Porto Powertech 2001. (With T. Bjørkvoll, S.-E. Fleten, M. P. Nowak, and A. Tomasgard.)

#### Newspaper articles

- 81 Tilbake til overforbruksmåleren! *Adresseavisen*, November 20, 2002. (With Stein-Erik Fleten and Erling Pettersen).
- 82 Det er dumt å spare på strømmen når det er kaldt. *Romsdals Budstikke*, February 22, 2003.

#### Invited tutorial and plenaries

- Modeling with stochastic programming. EURO XII/TIMS XXXI, Helsinki, Finland, 1992.
- Minicourse in stochastic programming at 20th Conference on the Mathematics of Operations Research, Lunteren, The Netherlands, 1995.
- Preprocessing in linear programming. Second Scandinavian Workshop on linear programming, Copenhagen, 1996.
- Introduction to stochastic programming. Tutorial program in connection with VII International Conference on Stochastic Programming, Vancouver, August 1998.
- Portfolio Management Model for an energy producer in a deregulated market. Eight Symposium of the Erasmus Center for Financial Research, Rotterdam, June 1999.
- Decision making under uncertainty: Is sensitivity analysis of any use? Tutorial at the British OR conference in Edinburgh, September 1999.
- Appropriate tools for decision making under uncertainty. Risk management in energy markets: Optimal use of financial products. Organized by Electricité de France and Sorbonne, Paris, October 1999.
- Production planning and risk management for an electricity producer in the Norwegian market. Risk management in energy markets: Optimal use of financial products. Organized by Electricité de France and Sorbonne, Paris, October 1999.
- Decision making under uncertainty: Is sensitivity analysis of any use? Danish seminar on stochastic modeling in agricultural production, Viborg, Denmark, October 2000.
- Stochastic programming in deregulated energy markets. 9th International Conference on Stochastic Programming, Berlin, August 2001.
- Decision Making under uncertainty. Is sensitivity analysis of any use? Keynote address as ORSNZ Visiting Lecturer at Twenty Naught One, the 36th annual conference of the New Zealand Operational Research Society. Christchurch, December, 2001.
- Half-day introduction to stochastic modelling at Nordic (NoRFA) PhD- course in optimization in Bornholm, Denmark, May 2002.

- Optimization and Markets. APMOD 2002, Varenna, Italy, June 2002.
- Scenario generation: How, and why it is crucial to do it right. International conference on mathematical programming, organized by The Chinese Mathematical Programming Society, Shanghai University and The Chinese University of Hong Kong. Shanghai, China, December 2002.
- Benders' decomposition. Presentation at Electric Energy Systems University Enterprise Training Partnership's course on Optimization Techniques in Madrid, February 2003.
- The role of stochastics in optimization: Why it is dangerous to overlook it. ECCO XVI, Molde, Norway, June 2003.
- Stochastic service network design. Or: another way to think about stochastic programming. 3rd Sino-Japanese Optimization meeting. Singapore, October, 2005.
- Stochastics in logistics – Challenges. Workshop on stochastics in logistics and transportation, Molde, June, 2006.

### Lectures at seminars/conferences

- On increased capacity in factories in Northern Norway during the Winter capelin Fisheries and Capacity adaption with uncertain quotas and variable speed. Method and example. National seminar on the Economy in the Norwegian purse-seiner fleet at Chr. Michelsen Institute, 1981.
- Risk aversion, joint ownership and resource sharing. Nordic Symposium on Resource Management Under Uncertainty at Chr. Michelsen Institute, 1983.
- Stochastic transportation problems. Third International Conference on Stochastic Programming, IIASA, Austria, 1983.
- On network structured stochastic optimization problems. NATO ASI on Computational Mathematical Programming, Bad Windsheim, Germany F.R., 1984.
- Reservoir-economic optimization. SPE Hydrocarbon Economics and Evaluation Symposium, Dallas, Texas, 1985.
- An engineering-economic petroleum reservoir model. Fifth International Conference on Mathematical Modelling, Berkeley, 1985.
- Feasibility problems in stochastic programs with network recourse. 12th International Symposium on Mathematical Programming, Boston, 1985.
- A piecewise linear upper bound on the network recourse problem. Fourth International Conference on Stochastic Programming, Prague, 1986.
- Preprocessing in stochastic programming - The case of uncapacitated networks. 13th International Symposium on Mathematical Programming, Tokyo, 1988.
- Work patterns in project scheduling. CORS/ORSA/TIMS National Meeting, Vancouver, 1989.
- Developing algorithms for a project scheduling system. NOAS 89, Nordic OR Conference, Linköping, 1989.
- Preprocessing in stochastic programming - The case of linear programs. Fifth International Conference on Stochastic Programming, Ann Arbor, Michigan, 1989.
- Structural properties of the progressive hedging algorithm. Fifth International Conference on Stochastic Programming, Ann Arbor, Michigan, 1989.
- Stochastic programming. The Norwegian Informatics Conference, Stavanger, 1989.
- Modelling quota systems in fisheries. Fishery conference ("A Barent Sea of possibilities"), Tromsø, 1990.
- Stochastic programming. A series of tutorials at a Nordic course for PhD students in Denmark, 1990.
- Stochastic programming and fisheries management. ORSA/TIMS National Meeting, Philadelphia, 1990.
- Overcoming the (apparent) problem of inconsistency in O-D matrix estimations. TRISTAN1, Montreal, Canada, 1991.
- Using ideas from stochastic programming in O-D matrix estimations. The 14th International Symposium on Mathematical Programming, Amsterdam, The Netherlands, 1991.
- O-D matrix estimation – modeling issues. IFIP Workshop, Berlin, 1992.
- Stochastic programming on networks. IFIP Workshop, Stuttgart, 1992.
- Feasibility in capacitated networks. 2nd Meeting of the Nordic Section of the Mathematical Programming Society, Trondheim, 1992.

- Stochastic programming and parallel processing. Nordic meeting under NorFA in Linköping, 1992.
- Preprocessing in stochastic programming: The case of capacitated networks. Sixth International Conference on Stochastic Programming, Udine, Italy, 1992.
- Improving bounds in stochastic programs by partitioning the support. Symposium on Applied Mathematical Programming and Modeling, Budapest, Hungary, January 1993.
- Stochastic decomposition in a parallel environment. ORSA/TIMS Joint National Meeting, Phoenix, Arizona, November 1993.
- Feasibility in capacitated networks — The effect of new information. IFIP Workshop on Stochastic Programming, Lillehammer, Norway, January 1994.
- Feasibility in uncapacitated networks — The effect of new information. 3rd Meeting of the Nordic Section of the Mathematical Programming Society, Linköping, Sweden, February 1994.
- Stochastic and integer programming — Are they any different? Nordic meeting on stochastic integer programming in Linköping, Sweden, May 1994.
- Parallel aspects of stochastic decomposition. Workshop on large scale and parallel optimization, IIASA, Austria, June 1994.
- Decentralized production planning for hydro-based electricity generation. The 15th Symposium on Mathematical Programming, Ann Arbor, Michigan, August 1994.
- Stochastic programming and option theory – An educational note. VII International Conference on Stochastic Programming, Israel, June 1995.
- Stochastic Programming in Telecommunications. The future of telecommunications, Bergen, November 1995.
- Service configurations in intelligent networks. IFIP/NSF Workshop on stochastic programming, Tucson, Arizona, January 1996.
- Service location in intelligent networks: Investigating the stochastic case. INFORMS Spring 96, Washington DC, May 1996.
- Decisions under uncertainty. Seminar on risk management in the energy sector, Trondheim, May 1996.
- Portfolio management for an insurance company. 4th Meeting of the Nordic Section of the Mathematical Programming Society, Århus, August 1996.
- Modeling service provisions in telecommunications. 18th IFIP TC7 Conference, Detroit, July 1997.
- Options – why and how. Seminar on portfolio management in the energy sector, Oslo, November 1997.
- Portfolio management for a Norwegian life insurance company. APMOD98, Cyprus, March 1998.
- Income redistribution between heterogeneous income units. Nordic MPS meeting, Molde, May 1998.
- Portfolio management in the energy sector. EURO Working Group on Finance, Paris, May 1998.
- Basis structures for multi-commodity networks. 8th Stockholm Optimization Days, June, 1998.
- Generating scenario trees. VII International Conference on Stochastic Programming, Vancouver, August 1998.
- The future of stochastic programming. VII International Conference on Stochastic Programming, Vancouver, August 1998.
- Evaluating decision models. EnFO seminar on portfolio management in the energy sector, Oslo, October 1998.
- Portfolio management in the energy sector. International Conference on Nonlinear Programming and Variational Inequalities, Hong Kong, December 1998.
- End user portfolios in the electricity market. Seminar on portfolio management in the energy sector, Oslo, October 1999.
- Portfolio model for energy production in a deregulated market. 26th International Conference on Computers and Industrial Engineering, Melbourne, December 1999.
- The stochastic resource constrained project scheduling problem: Qualitative results. 26th International Conference on Computers and Industrial Engineering, Melbourne, December 1999.
- Optimization under uncertainty in system dynamics. Poster presentation, The 18th International Conference of The System Dynamics Society, Bergen, August 2000.
- The art of modeling. What to do when you do not know the consequences. The opening of the 9th academic year at The Centre for Advanced Study, The Norwegian Academy of Science and Letters, September 2000.

- The private house as a market. New business paradigms for the e-economy. The European Commission, Brussels, September 2000.
- Decision making under uncertainty – taking a wider look. Workshop organized by the Centre for Advanced Study, the Norwegian Academy of Science and Letters, Molde, May 2001.
- Practical experience with scenario generation. Forecasting financial Markets 2001. London, June 2001.
- Fleksibilitet - hva er det for noe? Forskningsdagene i september 2001 i Kristiansund.
- Developing Ormen Lange – think options! SINTEF International Workshop on Integrated natural gas market and transportation systems. Røros, September 2001.
- Bookmobile routing and scheduling in Buskerud County, Norway. Nordic MPS’01, Copenhagen, November 2001.
- Scenario Generation - What makes a scenario tree good? IFIP/IIASA/GAMM-Workshop on Dynamic Stochastic Optimization, Laxenburg, Austria, March 2002.
- Can small end users help us reduce risk? Energy conference in Stockholm organized by Energyforum.net. September 2002.
- The end user market in electricity: New modelling challenges. Nordic MPS ’02, Bergen, September 2002.
- Coping with uncertainty in a hub and spoke system. Odysseus 2003, Palermo, May 2003.
- Scenario generation in stochastic programming - what can we reasonably ask for? 18th Symposium on Mathematical Programming, Copenhagen, August 2003.
- Planning under uncertainty: How do you measure the quality of a model? 3rd SINTEF International Workshop on Integrated gas market and transportation systems, Trondheim, November, 2003.
- On scenario generation and markets. 3rd SINTEF International Workshop on Integrated gas market and transportation systems, Trondheim, November, 2003.
- Stochastic network design — initial investigations. IFIP/SOM Workshop on Stochastic Integer Programming, Groningen, The Netherlands, May 2004.
- Stochastic Service Network Design. TRISTAN V, Guadeloupe, French West Indies, June 2004.
- Evaluation of scenario-generation methods in stochastic programming. The Tenth International Conference on Stochastic Programming, Tucson, Arizona, October 2004.
- Supply base management. Nordic MPS’04, Norrköping, Sweden, October 2004.
- Robustness and flexibility in service network design. Workshop on Mathematical Models for Optimizing Transportation Services, Auckland, New Zealand, April 2005.
- Stochastic service network design. Or: another way to think about stochastic programming. 10th Meeting of the Nordic Section of the Mathematical Programming Society, Copenhagen, April 2006.
- Stochastic service network design. Or: Understanding when you cannot solve. CORS / Optimization Days, Montreal, May 2006.
- Stochastic network design – is there a way forward? Odysseus 2006, Altea, Spain, May 2006.
- Supply base management. Modeling, Optimization, and Simulation Technologies Workshop, Columbus, Ohio, November 2006
- Stochastic programming and the option of doing it differently. INFORMS Annual Meeting, Pittsburgh, PA, November, 2006.

### Guest lectures

- Dept. of Mathematics, Linköping Institute of Technology, 1983.
- Dept. of Economics, University of Bergen, 1985, 1986.
- Dept. of Mathematics, University of Oslo, 1985.
- Center for Cybernetic Studies, University of Texas at Austin, 1985.
- Dept. of Industrial and Operations Engineering, The University of Michigan, 1985, 1988.
- Dept. of Mathematics, University of Washington, 1985.
- Dept. of Informatics, University of Bergen, 1988, 1995, 2001.
- Dept. of Civil Engineering and Operations Research, Princeton University, 1988, 1992.
- Science Institute, University of Iceland, 1988.
- IBM Watson Research Center, New York, 1989, 1991.
- Dept. of Economics and Industrial Management, The Norwegian Institute of Technology, 1990.

- RUTCOR, Rutgers University, New Jersey, 1990.
- The Norwegian School of Management, Seminar at Gran Canaria, 1991.
- Dept. of Systems and Industrial Engineering, The University of Arizona, Tucson, 1992.
- CORE, Université Catholique de Louvain, 1993.
- Department of Mathematics, Linköping Institute of Technology, 1993. (An 8 hours course over two days in stochastic programming.)
- Institut für Entscheidungstheorie und Unternehmensforschung, Universität Karlsruhe, 1993.
- Department of Mathematics, University of Copenhagen, 1993, 1998.
- Department of Basic Subjects, Beijing Agricultural Engineering University, China, 1995.
- Department of Mathematics, Nanjing University, China, 1995.
- Suzhou Railway Teachers' College, China, 1995.
- Telenor, Oslo, 1995, 1997.
- Séminaire de Statistique et Modélisation Stochastique, Université Joseph Fourier et Institut National Polytechnique de Grenoble, 1996.
- Ecole Nationale Supérieure de Génie Industriel, Institut National Polytechnique de Grenoble, 1996.
- Logilab, Université Genève, 1996.
- Economics Faculty, Erasmus University, Rotterdam, 1996.
- Management School, Imperial College, London, 1996.
- Ecole Nationale Supérieure d'Ingenieurs Electriciens de Grenoble, Institut National Polytechnique de Grenoble, 1997.
- Université Paul Sabatier, Toulouse, 1997.
- University of Cyprus, Nicosia, 1997, 2001.
- University of Århus, 1997.
- University of Odense, 1998.
- Edinburgh University, 1999 (two lectures).
- Université Libre de Bruxelles, 1999.
- National University of Singapore, 1999.
- Nanyang Technological University, Singapore, 1999.
- University of Canterbury, Christchurch, New Zealand, 1999.
- Molde University College, 2000.
- Red Eletrica National, Porto, Portugal, 2000.
- Department of Applied Mathematics, University of Duisburg, Germany, 2000.
- Department of Applied Mathematics, Humboldt University, Germany, 2000
- Department of Engineering Science, University of Auckland, New Zealand, 2001, 2004.
- Victoria University of Wellington, New Zealand, 2001.
- Waikato University, Hamilton, New Zealand, 2001.
- INRIA Lorraine, Metz, France, 2002.
- University of Zilina, Slovakia, 2002.
- University of Science and Technology of Suzhou, China, 2002.
- CIRANO, Montreal, Canada, 2003.
- CRT, University of Montreal, 2003.
- Charles University, Prague, The Czech Republic, 2003.
- Department of mathematics, University of Edinburgh, Scotland, 2004.
- Department of statistics and operations research, University of Malta (5 lectures), 2004.
- China Association for Science and Technology, Suzhou (2 lectures), 2004.
- Brno University of Technology, Czech republic, 2004.
- Dalhousie University, Halifax, Canada, 2006.
- University of Iowa, 2006.
- Columbia University, New York, 2006.
- IBM Watson Research Center, Yorktown Heights, New York, 2006.
- University of Texas at Austin, 2006.
- University of Maryland, 2006.
- University of Montreal, 2006.

## Working papers

- 83 Enumeration algorithm in linear programming. Report in informatics no. 3. Department of Mathematics, University of Bergen, February 1982.
- 84 Finding all the extreme points in the flow polytope. CMI-no. 832555-9, November 1983.
- 85 Enumerative methods for stochastic programs with network recourse. CMI-no. 842555-9, May 1984.
- 86 Stochastic optimization models for distributed communications networks. Working Paper 3/97, Department of Industrial Economics and Technology Management, NTNU. (With A. Tomasgard, S. Dye, J. A. Audestad, L. Stougie and M. van der Vlerk.)
- 87 Synchronous production or delivery: Dynamic scheduling problems. (With Lyès Benyoucef, Yannick Frein and Bernard Penz.)

## Reports

- 88 Seminar om økonomi i norsk ringnotflåte. (Seminar on the economic situation in the Norwegian purse-seiner fleet.) CMI-no. 812510-12, September 1981. (With S.D. Flåm and A. Hilstad.)
- 89 Kapasitetstilpassing med usikre kvotar. Tilfellet norsk ringnotflåte. (Capacity adaption with uncertain quotas. Case Study: The Norwegian purse-seiner fleet.) CMI-no. 812510-13, November 1981.
- 90 Om utvidet kapasitet ved fabrikkene i Nord-Norge under vinterloddefisket. (On increased capacity at the factories in Northern Norway during the Winter Capelin fisheries.) CMI-no. 812510-14, November 1981.
- 91 Flåteutilpassing med usikre kvotar og varierende fart. Metodeutvikling og eit særtilfelle. (Capacity adaption with uncertain quotas and variable speed. Method and example.) CMI-no. 812510-15, October 1981. (With S.D. Flåm.)
- 92 Regneprogram for optimal flåte for varierende kvoter. Brukerveiledning og beskrivelse. (User's guide and description of a computer program to determine and optimal fleet when quotas vary.) CMI-no. 812510-16, October 1981.
- 93 Økonomisk fôrblanding for oppdrettsfisk. (Optimal wet-feed mixing in fish farms.) CMI-no 812520-1, March 1982. (With S.D. Flåm and K. Meen.)
- 94 Økonomisk beskrivelse av sildemelindustrien. (Economic analyses of the Norwegian fish-meal and fish-oil industry.) CMI-no. 822550-1, May 1982.
- 95 Markedsimperfeksjoner i sildenæringen. (Market failures in the production of fish-meal and fish-oil.) CMI-no. 822550-4, April 1982
- 96 Capacity adaption of a fishing fleet facing uncertain quotas. CMI-no. 822550-5, May 1982. (With S.D. Flåm.)
- 97 Kapasitetsreduksjoner i sildenæringen. (Capacity reductions in the fish-meal industry.) CMI-no. 822550-6, June 1982.
- 98 Risk aversion, joint ownership and resource sharing. CMI-no. 832155-2, February 1983. (With S.D. Flåm.)
- 99 Likevektsutbytte fra en fiskebestand med kultivert rekruttering. (Maximum sustainable yield for a fish-stock with cultivated recruitment.) CMI-no 832555-4, April 1983. (With S.D. Flåm.)
- 100 Artiklar om norsk industrifiske. (Articles on the Norwegian Industrial fisheries.) CMI-no. 832555-5, February 1983. (With S.D. Flåm and A. Hilstad.)
- 101 Kostnadsmodell for stål- og betongplattformer. (Cost model for steel and concrete platforms.) CMI-no. 852310-1, February 1985. (With C. Helgesen, A.N. Nystad and L. Thorlund-Petersen.) Confidential.
- 102 Utvinningsfaktor som funksjon av antall brønner. (Recovery factor as a function of the number of wells.) CMI-no. 852310-7, August 1985. (With H. Asheim, A.N. Nystad and C. Helgesen.)
- 103 Production profiles for oil fields. CMI-no. 852310-8, September 1985. (With C. Helgesen and A.N. Nystad.)
- 104 Optimal developments of an oil field. CMI-no. 852310-9, September 1985. (With C. Helgesen and A.N. Nystad.)
- 105 Treatment of stochasticity in field evaluations. CMI-no. 862310-1, April 1986. (With C. Helgesen.)
- 106 Reservoarøkonomi. (Reservoir economics.) CMI-no. 862310-2, April 1986. (With C. Helgesen.)

- 107 Kortsiktige produksjonsreguleringer for gassproduksjonen fra Gullfaksfeltet. (Short-term regulations of the production of natural gas from the Gullfaks field.) CMI-no. 862323-1, December 1986. (With K. Sunnevåg.) Confidential.
- 108 Kravspesifikasjon. Kortsiktige produksjonsreguleringer for gassproduksjonen fra Gullfaksfeltet. (Requirements specification. Short-term regulations of the production of natural gas from the Gullfaks field.) CMI-no. 862323-2, December 1986. (With K. Sunnevåg.) Confidential.
- 109 Kortsiktige produksjonsreguleringer for gassproduksjonen fra Gullfaksfeltet. Brukerveiledning og Systembeskrivelse. (Short-term regulations of the production of natural gas from the Gullfaks field. User Guide and System Description.) CMI-no. 862323-3, May 1987. (With H. Bjørstad and K. Sunnevåg.) Confidential.
- 110 Problemformulering og nettverksalgoritmer for prosjektstyringssystem. (Problem formulations and network algorithms for a project management system.) CMI-no. 872102-1, pp. 38, February 1987. (With Å. Hallefjord.) Confidential.
- 111 Algoritmer og datastrukturer for preprosessering og tidsanalyse i prosjektstyring. (Algorithms and data structures for pre-processing and time-analysis in project scheduling.) CMI-no. 872102-2, (Revised) March 1988. (With Å. Hallefjord.) Confidential.
- 112 Modell for nominering av gassproduksjonen fra Gullfaksfeltet. (Model for nominating the gas-production from the Gullfaks field.) CMI-no. 872323-1, December 1987. (With Heidi Bjørstad.) Confidential.
- 113 Kravspesifikasjon. Modell for nominering av gassproduksjonen fra Gullfaksfeltet. (Requirements specification. Model for nominating the gas-production from the Gullfaks field.) CMI-no. 872323-2, Desember 1987. (With Heidi Bjørstad.) Confidential.
- 114 Algoritmer for ressursglatting og tidsminimering med strenge ressurskrav i prosjektstyring. (Algorithms for resource levelling and time scheduling in project scheduling.) CMI-no. 30702-1, March 1988. (With Å. Hallefjord.) Confidential.
- 115 Simuleringsmodell for konsumfiskeriene. (Simulation model for the consumption fisheries). CMI-no. 30706-1, (With T. Helgason and N. Midjo.)
- 116 Fiskerihavn. (Fishery harbour). NROU-Report, 1989. (With S. Munkejord og K.G. Salvanes.)
- 117 A quota model for fisheries; General outline. NROU Working Paper 90/4, Haugesund Maritime College, 1990. (With Thorkell Helgason).
- 118 A quota model for fisheries; Algorithms and data structures. NROU Working Paper 90/5, Haugesund Maritime College, 1990.
- 119 Fiskerihavn — Forprosjekt 2. (Fishery harbour — Pre project 2). NROU Working Paper 90/2, Haugesund Maritime College, 1990. (With Kjell G. Salvanes.)
- 120 Nordic Fisheries Management Model — A short description. Report RH-2-91, Science Institute, University of Iceland. (With Thorkell Helgason.)
- 121 Nordic Fisheries Management Model — Comprehensive Description. NSA-Report 1992:501, Nordic Council of Ministers, Copenhagen, 1992. (With Snjólfur Ólafsson, Thorkell Helgason and Ebba Thora Hvanberg, all University of Iceland.
- 122 Produksjonsplanlegging Hydro Energi (Production planning for Hydro Energy). 2 parts with 8 coauthors, 1994. Confidential.

### Scholarships (1978–1981)

L. Meltzers høyskolefond, Elisabeth Knutsens legat, Christian Christiansen og hustru Christine Elisebeth Christiansens legat, Jubilæumslegatet av 1916, Lise og Arnfin Hejes fond, Sparebanken Rogaland.

### Stipends

- Norwegian Council of Fisheries Research (NFFR), paid for 6 months stay in Austin, Texas, USA 1982.
- One-year stipend from Norwegian Research Council for Science and the Humanities, (NAVF), to finish the dr.scient degree at the University of Bergen, 1983-84.
- Stipend from ELF Petroleum Norway to partly support sabbatical leave in Grenoble, academic year 1996-97.

## Grants

- NATO Collaborative Research Grant with Roger J-B Wets, (University of California at Davis) 1988-89. Renewed 1990-91 with Roger J-B Wets and Thorkell Helgason (University of Iceland).
- Grant from the Nordic Council of Ministers to set up a network among scientists in Nordic universities in the field of mathematical programming, 1990.
- NATO Collaborative Research Grant with Julia Higle and Suvrajeet Sen (University of Arizona) 1992-94.
- Grant from The Nordic Academy of Advanced Study for organizing a Nordic network in mathematical programming, 1991-94.
- 5 year grant from The Research Council of Norway and EnFO (an organization of energy producers) to study portfolio management in the energy sector, 1995-1999.
- 4 year grant from Telenor to study planning under uncertainty in telecommunications, 1995-1998.
- 4 year grant from The Research Council of Norway and EnFO to study end user markets in electricity, 2000-2003.
- 3 year grant from Telenor to study strategic planning in telecommunications, 2000-2002.
- 4 year grant from Gjensidige Kapitalforvaltning to study portfolio management in insurance. 1999-2001.
- Invitation to head a group of international and national scientists at the Centre for Advanced Study in Oslo, financed by the Ministry of Education and the Norwegian Academy of Science and Letters. Duration: 1 year (academic year 2000-01).
- 4 year grant from The Research Council of Norway to promote the internationalization of Molde University College. 2003-2006.
- 5 year grant from The Research Council of Norway to study vehicle routing for transportation of live animals to slaughterhouses. (With Norwegian Meat Research Center and industrial partners.)
- 3 year grant from The Research Council of Norway to study stochastic integer programs. 2006-09.
- Minor grant from The Research Council of Norway to initiate research activities with China. 2005-06.

## Other

- Member of the The Regional College Board of Rogaland (Høgskolestyret for Rogaland) 1990–1992.