

Roger M. Cooke Personal

Nationality

Born February 9, 1946, Cincinnati, Ohio

Nationality U.S.A./The Netherlands

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Married 2 children (1973, 1975)

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Education

B.A. Yale University 1968,

Ph.D. Yale University 1974 (Philosophy and Mathematics).

Academic honors

Phi Beta Kappa, Highest Honors in Philosophy, Magna Cum Laude (Yale University)

Teaching experience

Teaching assistant Yale University 1972 (Dept. of Philosophy)

Assistant Professor, Yale University: 1974 (Dept. of Philosophy)

Assistant Professor, University of Amsterdam 1975 (Dept. of Philosophy)

Assistant Professor, Delft University of Technology, 1979 (Dept. of Philosophy)

Associate Professor, Delft University of Technology, 1987 (Dept. of Mathematics).

Professor Applied Decision Theory, 1993 (Dept. of Mathematics).

Current areas of specialization:

Statistical Decision Theory including:

- Risk Analysis
- Subjective Probability / Expert Judgment
- Uncertainty Analysis
- Decision Theory

Areas of Teaching competence

- Operations Research
- Game Theory
- Probability/Statistics

PhD Dissertations Supervised

- Jan. M. van Noortwijk Optimal Maintenance Decisions for Hydraulic Structures Delft, 1996.
- Jan G. Norstrom Value of Information Based Design of Control Software, Delft, 2000.
- Dorota Kurowicka Techniques in Representing High Dimensional Distributions, Delft 2001.
- Bernd Kraan Probabilistic Inversion in Uncertainty Analysis Delft, 2002.
- Cornel Bunea Mathematical Models for Reliability data Delft, 2003.
- Daniel Lewandowski, Copulae for High Dimensional Distributions, 2003-2007.
- Anca Hanea Algorithms for Distribution-Free Bayesian Belief Nets 2004-2008.
- Oswald Morales Applying continuous Bayesian Belief Nets 2004-2008.
- Radboud Tebbens Dynamic Risk Models for Infectious Diseases 2003-2005.

Editor/Referee

Referee

Physics Letters A Referee, IMA Journal of Mathematics , Applied in Business and Industry. Reliability, Engineering and System Safety Operations Research European Journal of Operational Research Journal of the Operational Research Society

- Guest editor Delft Progress Reports, Vol. 9, nr. 2, 1984("Quantum Mechanics and Probability").

- Guest co-editor Reliability Engineering and Systems Safety, special issue on Precursor Studies, 27 (1990).
- Member Editorial Board Reliability Engineering and System Safety (1991-).
- Chairman European Technical Committee on Uncertainty Modelling. (1993-1998)
- Guest editor Reliability Engineering and System Safety; special issue, Design of Reliability Data Bases (1996).
Workshop Uncertainty Modelling 24-25/3/97.
- Editorial Board Risk Analysis, 1997.
- Editorial Board Reliability Engineering and Systems Safety.
- Editor European Safety and Reliability Assoc. Newsletter (1996- 2000).
- Coordinator Masters Of Science Program Risk and Environmental Modelling (1999-).

**Contract Research Initiator and
(joint)-coordinator:**

- The Accident Sequence Precursor Methodology for the Dutch Process Industries 1/1/85-1/1/86, f 94.010, Ministry of Housing Physical Planning and Milieu).
- The use of expert opinion in safety studies 1985-1989. f 621.400, Ministry of Housing, Physical Planning and Milieu.
- Contract research IWECO Ergonomic Guidelines for Automated Control Rooms, (sub-project: using expert opinion in inspecting automated control rooms 1986, f 10.200, Ministry of Social Affairs).
- Use of Expert Judgment Data; European Space Agency: (f 175.000), 1/1/89 - 1/11/89.
- Computerized Risk Assessment: European Space Agency (f. 233.700), 1/1/89 - 1/1/90.
- Integrated Software Package for Expert Opinion in Risk Analysis, Ministry for Housing, Physical Planning & Milieu (f. 36.000), 1/11/89-1/1/90.
- Software Package for expert data evaluation and fusion commission of the European communities (f. 60.000) 1990
- Uncertainty analysis of atmospheric dispersion and the deposition codes; commission of the European communities (f 82.000) 1991
- Pilot Project Uncertainty Analysis of Dispersion & Deposition models of COSYMA Code 1-6-90, 1-6-91 fl. 60.000,-.
- Upgrade computerized Risk Assesment, European Space Agency 1991 (f. 70.000).
- Enhanced reliability methods for assessing the realization of CLUSTER mission objectives: European Space Agency, (f. 14,000) 1/9/91-1/12/91,
- Data Generation and Collection: European Space Agency (f. 232,000) 11/92- 1/1/94.
- Support to application and Development of Risk Assessment 1/1/94 - 1/6/94 ESTEC fl. 58.000.
- Pilot Proj. ``Concerning Statistical analysis of maintenance performance" 1/3/94-1/6/94 fl. 12.000. Ris\$ptyset\$, Natural Laboration (DK).
- Further Development and Application of Risk Assessment & Integration of Safety and Reliability tasks 1/6/94 - 1/1/95 ESTEC fl. 80.000.
- Review of SKI Data Processing methodology, Swedish Nuclear Inspectorial; 1-10-94 - 1-1-95 fl. 30.000,-.
- Optimal decisions that reduce flood damage along the Meuse: an uncertainty analysis 1/4/95 - 1/11/95; fl. 100.000,-.

- Joint CEC/USNRC Uncertainty Analysis of Accident Consequence Codes.
- Idem Ph.D. project Procedures Guide for uncertainty analysis 1/1/94 - 1/1/98 fl 100.000.
- Idem Mathematical Techniques for Uncertainty analysis 1/9/92 - 31/5/94 fl. 100.000.
- Idem 1/12/93 - 1/1/95 fl. 134.000.
- Gasunie, Failure frequency for Underground Pipelines 1/1/94 - 1/6/96 fl. 150.000.
- EU Working Group Fusion 1/6/96 - 1/6/98
- Swedish Pipe failure Database Review 1/5/97 - 1/10/97 fl. 20.000,--.
- Ministry of Water: uncertainty analysis of dyk failure probabilities 1/4/97 - 21/7/97 (with HKV) fl. 86.455,--.
(21/7/97 - 15/12/97 : fl. 108.695) (1/6/98 - 30/11/98 fl. 56.340)
- Nato Linkage Grant (01/01/99 - 31/01/01 fl. 22.000)
- Design of Uncertainty Modelling Software, HKV-Center fl. 50.000,--. (1/9/00 - 1/7/01)
- NOx Emissions RIVM fl. 50.000,--. (1/10/00 - 1/1/01)
- Project Risk and Uncertainty, Norwegian. Research council , Stavanger University. (1/1/01 - 01/01/02) fl. 13.000
- GasUnie: Model Validation, Pipeline Failure Rates, (01/03/01 - 01/05/01), fl 8000,--
- Siemens/KWU: Reliability data base design. (01/12/01) -(01/05/02), fl 35.000,--
- Schiphol, NLR Causal Models (01-12-01)-(01-11-02), 90,000 fl.
- RIVM Chicken Processing model, 10,000 e. 1/11/02 - 1/5/03
- Risk analysis of abandoned chemical weapons site 30,000e, 1/01/03 - 1/6/03.
- Gov. of Kuwait, Harvard Center for Risk, & MIT (Atmos. Chem) Health effects of fine particulate matter, 1-6-03 1-1-05, \$150,000.
- Worker Safety Models (WORMS) Min. of Soc. Affairs, 2003 – 2005, \$90,000.
- German Inst. for Coastal Research GKSS: Risk Modelling for Oil Spills 1-9-03 - 1-9-05, 45,000e.
- SwissNuclear "Review of Pegasos project on Seismic risk", 1-9-043 - 1-4-05; \$40,000
- Causal Models for Schipol Airport 1-1-05 1-1-08 \$483,000.00

Administrative Experience

- Executive Faculty Council, Department of Social Sciences, TU Delft, 1981-1983 (Faculteitsbestuur)
- Coordination committee, Dept of Mathematics and Informatics, 1988 -
- Coordinator, Conditionally financed Research Project Mapob, Department of Mathematics and Informatics TU Delft, 1987-1991.
- Committee for Research and Teaching Evaluation(wetenschapsbeoefening) Department of Mathematics and Informatics 1993. – Chairman of the section Statistics, Probability and Operations Research, 1996-1998.

- Chairman Department of Control, Risk, Optimization, Stochastics, Statistics and System Theory (CROSS), Faculty of Information Technology and Systems, 1999-2003.
- Coordinator International Masters Program Risk and Environmental Modelling, 1999-.

Publications

Books

Kurowicka, D. , and Cooke, R.M. Uncertainty Analysis and High Dimensional Dependence Modelling Wiley, New York, 2006.

Bedford, T.J. and Cooke, R.M. Probabilistic Risk Analysis: Foundations and Methods Cambridge University Press, (393 pages) 2001; ISBN 0 521 77320 2 Hardback

Cooke, R.M., Mendel, M., Vrijling, H. (eds.) Engineering Probabilistic Design and Maintenance for Flood Protection, Kluwer Academic Publishers, 1997.

Cooke R., Experts in Uncertainty; Opinion and Subjective Probability in Science, Oxford University Press; New York Oxford, 321 pages. 1991; ISBN 0-19-506465-8

Cooke, R. and Costantini, D. (eds.) Statistics in Science, Kluwer 1990.

Cooke, R.M., Belief in Science (in Dutch, English Summary available), van Gorcum, 1983.

Peer Reviewed Contract Research Reports

R.M.Cooke, Environmental Transport Uncertainty Model for Abandoned Chemical Weapons Site: dispersion, deposition and groundwater. ABS consulting, Tokyo, 2003.

A.Roelen, R. Wever, A. Hale, L. Goossens, R. Cooke, R. Lopuhaa, M. Sijmons, and P. Valk, "Causal modelling of air safety; NLR-CR-2002, 662, National Aerospace Laboratory, 2002.

R.M. Cooke, C. Bunea, T. Charitos, T.A. Mazzuchi "Mathematical Review of ZEDB Two-Stage Bayesian Model" VGB-Report, 45 pages; ISSN: 1439-7498, 2002

L.J.H. Goossens, B.C.P. Kraan, R.M. Cooke, J. Jones, J. Brown, J. Ehrhardt, F. Fischer, I. Hasemann ; Nuclear science and technology. Methodology and processing techniques Project Report EUR 18827EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-80. ISBN 92-894-2083-9

L.J.H. Goossens, B.C.P. Kraan, R.M. Cooke, J. Jones, J. Brown, J. Ehrhardt, F. Fischer, I. Hasemann ; Nuclear science and technology. Overall uncertainty analysis Project report EUR 18826EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-240. ISBN 92-894-2088-X

L.J.H. Goossens, R.M. Cooke, B.C.P. Kraan, J. Ehrhardt, F. Fischer, I. Hasemann, J.A. Jones, J. Brown, A. Khursheed, A. Phipps ; Nuclear science and technology. Uncertainty from the dose module Project report EUR 18825EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-183. ISBN 92-894-2085-5

L.J.H. Goossens, B.C.P. Kraan, R.M. Cooke, J.A. Jones, J. Ehrhardt, F. Fischer, I. Haseman; Nuclear science and technology. Uncertainty from the early and late health effects module Project report EUR 18824EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-105. ISBN 92-894-2086-3

L.J.H. Goossens, R.M. Cooke, B.C.P. Kraan, J. Ehrhardt, F. Fischer, I. Hasemann, J. Brown, J.A. Jones, J.G. Smith ; Nuclear science and technology. Uncertainty from the food chain module Project report EUR 18823EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-125. ISBN 92-894-2089-8

L.J.H. Goossens, B.C.P. Kraan, R.M. Cooke, J. Jones, J. Brown, J. Ehrhardt, F. Fischer, I. Hasemann ; Nuclear science and technology. Uncertainty from the atmospheric dispersion and deposition module Project report EUR 18822EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-163. ISBN 92-894-2087-1

L.J.H. Goossens, B.C.P. Kraan, R.M. Cooke, J. Jones, J. Ehrhardt ; Nuclear science and technology. Countermeasures uncertainty assessment Project report EUR 18821EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2001, Euratom pag.1-180. ISBN 92-894-2084-7

R.M. Cooke, L.J.H. Goossens, Nuclear science and technology. Procedures guide for structured expert judgment Project report EUR 18820EN specific programme `Nuclear fission safety 1994-98 'Rapport aan: European Commission. Luxembourg 2000, Euratom pag.1-55. ISBN 92-894-0111-7

Roger Cooke, Jan van Noortwijk, Bijlagen bij het expertmeningenrapport van de onzekerheidsanalyse op de inundatiekans. Rapport ONIN-1-99007, Projectnummer: WB 1083, 1999

Martijn Frijters, Roger Cooke, Karen Slijkhuis, Jan van Noortwijk, Rapport ONIN-1-99006, Expertmeningen onzekerheidsanalyse. Kwalitatief en kwantitatief verslag, Projectnummer: WB 1083, 1999

R.M. Cooke, Van Noortwijk J.M., "Uncertainty Analysis of Inundation Probabilities, Phase 1, TU-Delft Report 37-97, ISSN 0922-5641, Delft 1997.

L.H.J. Goossens, J. Boardman, F.T. Harper, B.C.P. Kraan, R.M. Cooke, M.L. Young, J.A. Jones and S.C. Hora, Probabilistic Accident Consequence Uncertainty Study: Uncertainty Assessment For Deposited Material And External Doses. Prepared for U.S. Nuclear Regulatory Commission and Commission of European Communities, NUREG/CR-6526 EUR 16772 SAND97-2323 Washington/USA, and Brussels-Luxembourg, 1997, published 1997, Vol. 1. Main Report. Vol. 2 Appendices, 60 blz, ISBN 92-827-6701

F.E. Haskin, L.H.J. Goossens, F.T. Harper, B.C.P. Kraan and R.M. Cooke, Probabilistic Accident Consequence Uncertainty Study: Early Health Effects Uncertainty Assessment. Prepared for U.S. Nuclear Regulatory Commission and Commission of European Communities, NUREG/CR-6545 EUR 16775 SAND97-2689 Washinton/USA, and Brussels-Luxembourg, 1997, published 1997, Vol. 1. Main Report Vol. 2. Appendices.

J. Brown, L.H.J. Goossens, B.C.P. Kraan, R.M. Cooke, J.A. Jones, J. Randall, F.T. Harper, F.E. Haskin, M.L. Abbott, M.L. Young, S.C. Hora and A. Rood, Probabilistic Accident Consequence Uncertainty Analysis, NUREG/CR-6523 EUR 16771, Vol. 1. Main Report June 1997. Vol. 2 Appendices.

L.H.J. Goossens, R.M. Cooke and B.C.P. Kraan, Evaluation of weighting schemes for expert judgement studies Final report prepared under contract Grant No. Sub 94-FIS;040 for the Commission of European Communities, Directorate-General for Science, Research and Development, XII-F-6. Delft University of Technology, Delft/NL, December 1996, 75 p.

Cooke, R.M., Jager, E., Methods for assessing the failure frequency of underground gas pipelines with historical data and structured expert judgment, Report 96-75. Dept. of Mathematics, Delft University of Technology, 1996.

Van Noortwijk J.M., Kok M. and Cooke R.M., Optimal decisions that reduce flood damage along the Meuse: an uncertainty analysis, publication no. 491, Delft Hydraulics, November 1995

Cooke R.M., Review of SKI data processing methodology, The design of reliability data bases: generic issues Phase 1, SKI report 95:2

Cooke R.M., Dorrepaal J. and Bedford T., Review of SKI data processing methodology, Mathematical Review Phase II, SKI report 95:2.

Harper F.T., Hora S.C., Young M.L., Miller L.A., Lui C.H., McKay M.D., Helton J.C., Goossens L.H.J., Cooke R.M., P"asler-Sauer J., Kraan B., Jones J.A., Probability Accident Consequence Uncertainty Analysis, NUREG/CR-6244 EUR 15855EN SAND94-1453 Vol 1. Main Report January 1995. Vol 2. Appendices A.1 Expert Rationales, Unprocessed Deposition Data and A.2 Expert Rationales, Unprocessed Dispersion Data and B Short Biographies of Dispersion and Deposition Experts. Vol 3. Appendix C: Principles for Probability Assessment, Expert Identification and Selection. Appendix D: Equal and Performance Based Weighting methods for Combining Expert Judgments Appendix E: Inverse Modeling Methods Appendix F: Case Structures Appendix G: Summary of MACCS and COSYMA Consequence Codes Appendix H: Non-Gaussian Information Survey.

Cooke, R.M.; Goossens, L.H.J. and Kraan, B., Methods for CEC/USNRC Accident consequence uncertainty analysis of dispersion and deposition - Performance based aggregating of expert judgments and PARFUM method for capturing modeling uncertainty, EUR 15856, Luxembourg, June 1995.

Paulsen, J.L. and Cooke R.M., Analysis of 221 Reports using Subsurvival Functions, Riso-I-795(EN), Riso National Laboratory, Roskilde, Denmark May 1994.

Cooke, R., Goossens, L. and Kraan, B., ``Performance Based Aggregating of Expert Judgments and Parfum Method for Capturing Modeling Uncertainty, 1994.

Cooke, R. Bedford, T., Meilijson, I. and Meester, L., ``Design of reliability data bases for aerospace applications", ISSN 09211-5641 Report 93-110 TU Delft, 1993.

Cooke R., "Expert Judgement study on atmospheric dispersion and deposition - main report and annexes", ISSN 0922-5641 Report 91-81 TU Delft, 300 pages, 1991. Annex I "Parameter fitting for uncertain models" with Frank Vogt 21 pp. Annex II "Expert judgment for uncertainty analysis of accident consequence codes" with H. van der Weide, 30 pp.

Cooke, R. French, S. and van Steen, J. "The use of expert judgement in risk analysis - Report to the European Space Agency" (contract no. 8051/88/NL/re(SC)) 220 p. Delft, 1990.

Final Report to the Dutch Ministry of Housing, Physical Planning and Environment: 1989. Vol. I Expert Judgment in Risk and Safety Studies; Main Report, Goossens, L. Cooke, R. and van Steen, J. 68 pp. Vol. III Model Description Report, Cooke, R., Mendel, M. and van Steen, J. 98 pp. Vol. IV A Theory of Weights for Combining Expert Opinions, Cooke, R. 36 pp. Vol V Case Studies, Cooke, R. and van Steen. 119 pp.

Cooke, R.M.; Van der Horst, J.; Goossens, L. and Hale, A., Accident Sequence Precursor Methodology A feasibility study for the Chemical Process Industries: Report to the Ministry of Housing, Physical Planning and Environment, Delft, 1987.

Refereed International Journals

Du C., Kurowicka D., Cooke R.M., Techniques for generic probabilistic inversion, *Comp. Stat. & Data Analysis* (50) 2006, 1164-1187.

Kurowicka D., Cooke R.M. Completion Problem with Partial correlation Vines, *Linear Algebra and its Applications*, vol. 418, nr 1, pp 188-200, 2006.

Cooke R.M. and Morales, O. "Competing Risk and the Cox proportional hazard model", *Journal of Statistical Planning and Inference* vol. 136, n° 5 , pp. 1621-1637, 2006,

Cooke, R.M. Nauta. M., Havelaar, A.H. and van der Fels, H.J. "Probabilistic inversion for chicken processing lines" *Reliability Engineering and System Safety*, 91 pp 13674-1372, 2006.

Cooke, R.M. Bosma, A. and Härte,F. " A practical model of Heineken's bottle filling line with dependent failures" *European Journal of Operational Research*, Volume 164, Issue 2, 16 July 2005, Pages 491-504

Van der Fels-Klerx, H.J., Cooke, R.M., Nauta, M.J., Goossens, L.H.J., Havelaar, A.H. "A Structured Expert Judgement Study For A Model Of Campylobacter Transmission During Broiler Chicken Processing" *Risk Analysis* 25 No. 1, 2005, pp 109-124.

Shrader-Frechette, K. and Cooke, R.M. Ethics and Choosing Appropriate Means to an End: Problems with Coal Mine and Nuclear Workplace Safety, *Risk Analysis*, volume 24, no. 1, 2004 pp 147-156.

Cooke, R.M. and Goossens L.H.G. "Expert judgement elicitation for risk assessments of critical infrastructures" *Journal of Risk Research* vol. 7 issue 6, 2004, ISSN 1366-9877, pp 643-657.

Cooke, R.M. " The anatomy of the Squeeze - the role of operational definitions in science" *Reliability Engineering and System Safety* 85, 2004, 313-319.

D. Kurowicka & R.M. Cooke," A Parametrization of Positive Definite Matrices in Terms of Partial Correlation Vines", in *Linear Algebra and its Application* 372 (2003) 225-251. Published by Elsevier Inc. doi:10.1016/S0024-3795(03)00507-X

R.M. Cooke, D. Kurowicka, I. Meilijson "Linearization of local probabilistic sensitivity via sample re-weighting" *Reliability Engineering and System Safety*", 79, 2003 pp. 131-137; Published by Elsevier Science Ltd. PII: S0951-8320(02)00223-5.

Roger M. Cooke, Book Review Elicitation of expert opinions for uncertainty and risks Elsevier, *Fuzzy Sets and Systems* 133 (2003), page 267-268, ISBN 0-8493-1087-3

J.G. Norstrom, R.M. Cooke, T. Bedford " Value of information based design of control software" *Reliability Engineering and System Safety*", 77 (2002) 291-300, Published by Elsevier Science Ltd. PII: S0951-8320(02)00062-5

R.M. Cooke & T.J. Bedford: "Reliability Data Bases in perspective", *IEEE Trans. Reliab.*, Vol 51 no3 294-311. 2002.

T.J. Bedford & R.M. Cooke, "Vines - a new graphical model for dependent Random Variables"- in *Annals of Statistics*, vol. 30, No.4, August 2002.

Jolanta K. Misiewicz and Roger Cooke "Simple fractions and Linear decomposition of some convolutions of measures" *Probability and Statistics*, 21, 2001, 149-157.

K.M. Thompson, R.F. Rabouw and R.M. Cooke; The risk of groundings fatalities form unintentional airplane crashes. In: *Risk analysis*, jaargang: 21,6, 2001, p. 1025-1037. ISSN: 0272-4332

Siekman S., R. Kruse, J. Gebhardt, P. Overbeek, R.M. Cooke; Information fusion in the context of stock index prediction. In: I. Bloch, A. Hunter (eds.); *International journal of intelligent systems*, Jaargang: 16, 11, 2001, p. 1285-1298. ISSN: 0884-8173

Cooke R.M., P. Smets "Self-conditional probabilities and probabilistic interpretations of belief functions, In: *Annals of Mathematics and Artificial Intelligence*, Jaargang: 32, 2001, p. 269-285. ISSN:1012-2443

Bedford, T.J. and Cooke, R.M. "Probability density decomposition for conditionally dependent random variables modelled by Vines, " *Annals of Mathematics and Artificial Intelligence*, Volume 32 (2001) Nos.1-4, ISSN 1012 2443, pp 245-268

J.K. Misiewicz and R.M.Cooke."Isotropic sequence of random variables and stochastic rescaling" In: *Theoretical Probability and Mathematical Statist*, Jaargang: 20, 2000, p. 151-157. ISSN: 0868-6904

B.C.P. Kraan, R.M. Cooke, "Uncertainty in compartmental models for hazardous materials-a case study. 71 (2000) 253-268 " *Journal of hazardous materials*" Elsevier Science BV.ISSN0304-3894

Cooke R.M. and Van Noordwijk J.M., "Generalized graphical Methods for uncertainty and sensitivity analysis"., page 54 - 57. ISBN No., *Bashkir ecological journal* 1 (8)'2000, Special Issue Problems of risk estimation and reduction in exceptional circumstances of natural and technogenic character for population of industrial regieus.In Russian.

J.M. van Noortwijk, R.M. Cooke and J.K. Misiewicz. "Characterizations of scale Mixtures of gamma Processes in terms of sufficiency and isotropy" *Journal of Mathematical Sciences* Vol. 99, No. 4, 2000. page 1469-1475, 1072-3374/00/9904-1469

B.C.P. Kraan and R.M. Cooke. "Processing Expert Judgements in Accident Consequence Modelling". *Radiation Protection Dosimetry* Vol. 90 No. 3, 2000.ISBN 1 870965 64 7.

R.M. Cooke and L.H.J. Goossens. "Procedures Guide for Structured Expert Judgement in Accidents Consequence Modelling", *Radiation Protection Dosimetry* Vol. 90 No. 3.2000.ISBN 1 870965 64 7, page 303-311.

Lennaert J.P. Speijker, Jan. M. van Noortwijk, Matthijs Kok, Roger M. Cooke, "Optimal Maintenance Decisions for Dikes" *Probability in the Engineering and Informational Science* 14, 2000, 101-121, Printed in USA, Cambridge University Press, 0269-9648/00.

Cooke, R.M., Bedford, T., "A new generic model for applying MAUT" *European Journal of Operational Research* 118, 589-604, 1999.

Cooke, R.M., Noortwijk, J.M. van, "Local probabilistic sensitivity measures for comparing FORM and Monte Carlo calculations illustrated with dike ring reliability calculations", *Computer Physics Communications* 115, 1-12, 1998.

Goossens, L.H.J., Cooke, R., Woudenberg, F. and van der Torn, P. "Expert judgement and lethal toxicity of inhaled chemicals" *Journal of Risk Research* Vol. 1 (2), pp. 117-133, 1998.

Cooke, R.M. & Jager, E. "Failure Frequency of Underground Gas Pipelines", In *Risk Analysis*, vol. 1, no 4, 511-527, 1998.

Bedford T, R.M. Cooke, "Reliability methods as management tools: dependence modeling and partial missions success", *Reliability Engineering and Systems Safety*, 58, 1997 p. 173-180, ISSN 0951-8320.

Goossens, L.H.J., R.M. Cooke, "Applications of some risk assessment techniques: Formal expert judgment and accident sequence precursors", *Safety Science* Vol. 26, no. 1/2, pp. 35-47, 1997.

Cooke, R.M. "Uncertainty modeling: examples and issues", *Safety Science* Vol. 26, no. 12, pp. 49-60, 1997.

Cooke, R.M. & Paulsen, J. "Concepts for Measuring Maintenance Performance and Methods for Analysing Competing Failure Modes", *Reliability Engineering and System Safety*, Vol. 55, no. 2, p. 135-141, 1997. Selected from Proceedings ESREL 94, 9th International Conference Reliability and Maintainability 30/5/94.

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Cooke, R.M. "The Design of Reliability Data Bases, Part I: Review of Standard Design Concepts". *Reliability Engineering and System Safety*, vol. 51 no. 2, p. 137-146, 1996.

Cooke, R.M. "The design of Reliability Data Bases, Part II: Competing Risk and data Compression". *Reliability Engineering and System Safety*, vol. 51 no 2, p. 209-223, 1996.

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Cooke, R.M. "Coherent combination of experts' opinions: Discussion", *Test*, vol. 4 no. 2, p. 285, 1995.

v. Noortwijk, J.M., Cooke, R.M., and Kok, M. "A Bayesian failure model based on isotropic deterioration", *European Journal of Operational Research* 82, p. 270-282, 1995.

Paulsen, J., Cooke, R., and Nyman, R. "Comparative Evaluation of Maintenance Performance using Subsurvival Functions" *Reliability Engineering and System Safety*, 1996. Selected from Proceedings ESREL 95. 10th

- International Conference on Reliability and Maintainabilities, Bournemouth June 1995.
- Cooke, R.M., Coherent combination of expert opinions, *Test* 4, 1995, p. 293-296.
- Cooke, R.M. "Uncertainty in dispersion and deposition in accident consequence modeling assessed with performance-based expert judgment", *Reliability Engineering and System Safety* 44, p. 35-46, 1994.
- Cooke, R. "Parameter fitting for uncertain models: modeling uncertainty in small models", *Reliability Engineering and System Safety*, vol 44, 1994, 89-102.
- Cooke, R.M. "The total time on test statistic and age-dependent censoring", *Statistics & Probability Letters* 18, 1993, 307-312.
- v. Noortwijk, J. , Dekker, R. Cooke, R. and Mazzuchi, T. "Expert Judgment in Maintenance Optimization", *Trans. IEEE on Reliability*, vol 41 no 3, 1992, p. 427-432.
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