

Curriculum Vitae Rob Kaas

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1 General Information

Name Kaas
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Ph.D. Department of Actuarial Science and Econometrics
University of Amsterdam
'Bounds and approximations for some risk theoretical quantities'
Cum laude; supervisor: M.J. Goovaerts; September 30, 1987
M.Sc. Department of Mathematics, University of Amsterdam
Cum laude; supervisor: J. Hemelrijk; February, 1977

2 Employment

- Full Professor (June 2001–); Department of Quantitative Economics, University of Amsterdam
- Visiting Professor Hongkong University (July 2008)
- Associate Professor (Sept 1989–June 2001); Department of Quantitative Economics, University of Amsterdam
- Visiting Professor (1992–1993); Université Libre de Bruxelles: holder of the UPEA-Chair of Actuarial Mathematics, involving teaching a course entitled: 'Ordering of risks'
- Visiting professor (1995–1996; 1999–2002), KU Leuven
- Assistant Professor (March 1977–Aug 1989); Department of Quantitative Economics, University of Amsterdam
- Assistant (1973–March 1977); Mathematical Centre, Amsterdam, at the Department of Mathematical Statistics
- Teaching-assistant (1969–1970), at the Department of Mathematics, University of Amsterdam

3 Current teaching load

- Non-life insurance 1 (Schade actuariaat 1)
- Non-life insurance 2 (Schade actuariaat 2; –2010)
- Non-life insurance: statistical techniques
- Caput Non-life insurance, ALM 2, Academic skills and Introduction Actuarial Science (Vaardigheden en Oriëntatie Actuarial Science – coordination)
- Thesis supervisor
- Coordinator Master theses
- Seminar Bachelor theses
- Director Actuarial programme BSc
- Director MSc Actuarial Science and Mathematical Finance
- Director Intensive Master Actuarial Science (part of Amsterdam Executive Master of Actuarial Science: AEMAS)
- Coordinator post-master programme ‘Minor actuariaat’
- Coordinator minor programmes Actuarial Science as well as Econometrics/Operations Research in BSc

4 Books (co-)authored, edited

1. *Bounds and approximations for some risk theoretical quantities*, (Ph.D. Thesis), University of Amsterdam (1987)
2. *Effective Actuarial Methods*, M.J. Goovaerts, R. Kaas, A.E. van Heerwaarden, T. Bauwelinckx, North-Holland, Amsterdam (1990)
3. *Heterogeniteit in Verzekering*. Berghe, L.A.A. van den, A. Oosenbrug, R. Kaas, H. Wolthuis, red. Liber Amicorum G.W. de Wit, Instituut voor Actuarial Science and Econometrie, Amsterdam, pp. 555 (1994)
4. *Inleiding Risicotheorie*, R. Kaas, M.J. Goovaerts, Institute for Actuarial Science and Econometrics, University of Amsterdam (1993), pp. 168.
5. *Ordering of actuarial risks*, R. Kaas, A.E. van Heerwaarden, M.J. Goovaerts; Education Series Vol. 1, CAIRE, Brussel (1994), distributed by Institute for Actuarial Science and Econometrics, University of Amsterdam, pp. vi+144.
6. *Practical Actuarial Credibility Models*, D.R. Dannenburg, R. Kaas, M.J. Goovaerts, Institute for Actuarial Science and Econometrics, University of Amsterdam (1996), pp. 157.
7. *Inleiding Risicotheorie*, 2nd edition, R. Kaas, M.J. Goovaerts, Institute for Actuarial Science and Econometrics, University of Amsterdam (1998), pp. 248.

8. *Modern Actuarial Risk Theory*, R. Kaas, M.J. Goovaerts, J. Dhaene, M. Denuit; Kluwer Academic Press, Dordrecht (2001), pp. xviii+309.
[In use as a textbook on 6 universities in The Netherlands, and many more abroad; a Chinese translation has appeared in January 2005 and has sold over 5000 copies; a translation into Russian appeared in 2008.]
9. *Actuariële Statistiek: Verleden en Toekomst*, R. Kaas, Oratiereeks, Vossiuspers UvA (2002)
10. *Actuarial Theory for Dependent Risks – Measures, Orders and Models*, Denuit, M., J. Dhaene, M. Goovaerts, R. Kaas, D. Vyncke; Wiley (2005)
11. *Modern actuarial risk theory Using R*. Kaas, R., Goovaerts, M.J., Dhaene, J. & Denuit, M.. Springer (2008), pp. xviii+381.
[A softcover version appeared in 2009; a Turkish translation, as well as a translation into Chinese of the second edition, are in preparation. Accompanying the book there are (for teachers) a solution manual as well as slides, 1000 pages in total.]

5 Academic publications (excl. books) by period

Before 1984 (not on actuarial science)

1. *Design and implementation of an efficient priority queue*. P. Van Emde Boas, R. Kaas, E. Zijlstra, Math. Syst. Theory 10, 99–127 (1977)
2. *Mean, Median and Mode in Binomial Distributions*. R. Kaas, J.M. Buhrman, Statistica Neerlandica 34, 13–18 (1977)
3. *Stronger GOMORY Cuts by Multidimensional knapsack problems*. J.A. van der Velde, R. Kaas, G. de Leve, Math. Operationsforsch. Statist., Ser. Optimization, 11.2, 249–259 (1980)
4. *Data-dependent bounds for heuristics to find a minimum weight Hamiltonian circuit*. R. Jonker, R. Kaas, A. Volgenant, Opns. Res. 28, 1219–1222 (1980)
5. *A branch and bound algorithm for the acyclic subgraph problem*. R. Kaas, European Journal of Operational Research 8, 335–362 (1981)

1984–1990

1. *A note on a formula for profit return*. M.J. Goovaerts and R. Kaas, Proceedings of the 4 countries ASTIN-symposium, 115–119 (1984)
2. Book review of *Insurance Premiums*, by M.J. Goovaerts, F. de Vijlder, J. Haezendonck, North-Holland (1984). R. Kaas, Het Verzekerings-Archief 62, 69–70 (1985)
3. *Application of the problem of moments to derive bounds on integrals with integral constraints*. M.J. Goovaerts and R. Kaas, Insurance: Mathematics and Economics, 4.2, 99–112 (1985) [A]
4. *Best bounds for positive distributions with fixed moments*. R. Kaas and M.J. Goovaerts, Insurance: Mathematics and Economics, 5.1, 87–92 (1985) [A]
5. *Computing moments of compound distributions*. R. Kaas and M.J. Goovaerts, Scandinavian Actuarial Journal, 35–38 (1985) [B]

6. *Bounds on distribution functions under integral constraints.* R. Kaas and M.J. Goovaerts, Bulletin Royal Society of Belgian Actuaries, 79, 45–60 (1985)
7. *Necessary and sufficient conditions for stochastic dominance.* R. Kaas and M.J. Goovaerts, Bulletin Royal Society of Belgian Actuaries, 79, 81–86 (1985)
8. *Application of the problem of moments to various insurance problems in non-life insurance.* R. Kaas and M.J. Goovaerts, Proceedings NATO ASI on Insurance and Risk Theory, Maratea. Reidel B.V., 325–348 (1986)
9. *General bounds on ruin probabilities.* R. Kaas and M.J. Goovaerts, Proceedings NATO ASI on Insurance and Risk Theory, Maratea. Reidel B.V., 459–464 (1986)
10. *General bounds on ruin probabilities.* R. Kaas and M.J. Goovaerts. Insurance: Mathematics and Economics, 5.2, 165–168 (1986) [A]
11. *Bounds on stop-loss premiums for compound distributions.* R. Kaas and M.J. Goovaerts, ASTIN Bulletin, 16.1, 13–18 (1986) [B]
12. *Extremal values of stop-loss premiums under moment constraints.* R. Kaas and M.J. Goovaerts, Insurance: Mathematics and Economics, 5.4, 279–285 (1986) [A]
13. Book review of: Drs C.T.M Wolters, *Voorzieningen in het Verzekeringsbedrijf* (Nationale-Nederlanden N.V, Afd. Research, Rotterdam), R. Kaas and M.J. Goovaerts, Het Verzekerings-Archief (1986)
14. *Ordering of risks and weighted compound distributions.* M.J. Goovaerts, M. Vandebroek and R. Kaas, Statistica Neerlandica, 40.4, 273–282 (1986) [B]
15. *A new method for deriving bounds on integrals with respect to measures allowed to vary under conical and integral constraints.* R. Kaas and M.J. Goovaerts, Journal of Computational and Applied Mathematics, 20, 289–298 (1987) [B]
16. *Numerical evaluation of compound distributions.* E. van den Berg, R. Kaas and M.J. Goovaerts, in W. Domschke et al. (Eds.). Methods of Operations Research. Athenäum, Darmstadt, 533–544 (1987) [B]
17. *Some elementary stop-loss inequalities.* R. Kaas, M.J. Goovaerts and T. Bauwelinckx, Mitteilungen der VSVM, 2, 225–229 (1987)
18. *On the probability and severity of ruin.* H.U. Gerber, M.J. Goovaerts and R. Kaas, ASTIN Bulletin, 17.2, 151–163, (1987) [B]
19. *On the use of QUADPACK for the calculation of risk theoretical quantities.* R. Kaas and M.J. Goovaerts, Insurance: Mathematics and Economics, 6.1, 33–42 (1987) [A]
20. *Upper bounds for the stop-loss premiums for the individual model.* T. Bauwelinckx, R. Kaas, M.J. Goovaerts, Bulletin Royal Society of Belgian Actuaries, 81, 67–72 (1987)
21. *Unimodal distributions in insurance.* R. Kaas and M.J. Goovaerts, Bulletin Royal Society of Belgian Actuaries, 81, 61–66 (1987)

22. *New upper bounds for stop-loss premiums for the individual model.* A.E. van Heerwaarden, R. Kaas and M.J. Goovaerts, *Insurance: Mathematics and Economics*, 6.4, 289–294 (1987) [A]
23. *The severity of ruin in case of completely monotone claim distributions.* H.U. Gerber, R. Kaas and M.J. Goovaerts, *IAA Proceedings (Helsinki)*, V1, 175–184 (1988)
24. *On stop-loss premiums for the individual model.* R. Kaas, A.E. van Heerwaarden and M.J. Goovaerts, *ASTIN-Bulletin* 18.1, 91–97 (1988) [B]
25. *Between individual and collective model for the total claims.* R. Kaas, A.E. van Heerwaarden and M.J. Goovaerts, *ASTIN-Bulletin* 18.2, 169–174 (1988) [B]
26. *Optimal reinsurance in relation to ordering of risks.* A.E. van Heerwaarden, R. Kaas and M.J. Goovaerts, *Symposium on Risk Theory*, Leuven (1988)
27. *Optimal reinsurance in relation to ordering of risks.* A.E. van Heerwaarden, R. Kaas and M.J. Goovaerts, *Insurance: Mathematics and Economics*, 8.1, 11–17 (1989) [A]
28. *Combining Panjer's recursion with convolution.* R. Kaas, A.E. van Heerwaarden and M.J. Goovaerts, *Insurance: Mathematics and Economics*, 8.1, 19–23 (1989) [A]
29. *Properties of the Esscher premium calculation principle.* A.E. van Heerwaarden, R. Kaas and M.J. Goovaerts, *Insurance: Mathematics and Economics*, 8.4, 261–268 (1989) [A]
30. *Verschoven Gamma-benadering en collectief risicomodel.* R. Kaas, *Proceedings 25 jaar ASTIN Holland*, ASTIN-Nederland, Den Haag, 17–30 (1989)
31. *Verschoven Gamma-benadering en collectief risicomodel.* *Bulletin Royal Society of Belgian Actuaries*, 84, 23–33 (1990)
32. *Ordering of risks and ruin probabilities.* R. Kaas, A.E. van Heerwaarden, *Insurance: Mathematics and Economics*, 9.2/3, 177–178, (1990) [A]
33. *From individual to collective risk model.* in: H. Wolthuis, R. Kaas, M.J. Goovaerts, B.J.J. Alting von Geusau (ed.), *Liber Amicorum Kok/van Klinken*, Instituut voor Actuarieat en Econometrie, Universiteit van Amsterdam, 85–94 (1990)
34. *Maximalisering van compound Poisson stop-loss premies bij gegeven verwachting en variantie van schades.* R. Kaas, M. Vanneste, M.J. Goovaerts, in: *Caleidoscoop op de Levende beslistkunde*, Instituut voor Actuarieat en Econometrie, Universiteit van Amsterdam, 37–50 (1990)

1991–1995

1. *Evaluating Compound Generalized Poisson Distributions Recursively.* M.J. Goovaerts and R. Kaas, *ASTIN Bulletin* 21.2, 193–198 (1991) [B]
2. *The Schmitter problem and a related problem: a partial solution.* R. Kaas, *ASTIN Bulletin*, 21.1, 133–146 (1991) [B]
3. *Actuarial Software.* R. Kaas *et al.*, *Insurance: Mathematics and Economics*, 10.4, 249–258 (1992) [A]

4. *Stochastic processes defined from a Lagrangian*. F. de Vijlder, M.J. Goovaerts, R. Kaas, *Insurance: Mathematics and Economics*, 11.1, 55–70 (1992) [A]
5. *Stop-loss order, unequal means, and more dangerous distributions*. R. Kaas, A.E. van Heerwaarden, *Insurance: Mathematics and Economics*, 11.1, 71–79 (1992) [A]
6. *A stochastic approach to insurance cycles*. M.J. Goovaerts, F. de Vijlder, R. Kaas, *Insurance: Mathematics and Economics*, 11.2, 97–108 (1992) [A]
7. *The Dutch premium principle*. A.E. van Heerwaarden, R. Kaas, *Insurance: Mathematics and Economics*, 11.2, 129–134 (1992) [A]
8. *Maximizing Compound Poisson Stop-loss Premiums Numerically with Given Mean and Variance*. R. Kaas, M. Vanneste, M.J. Goovaerts, *ASTIN Bulletin* 22.2, 225–233 (1992) [B]
9. *Interest randomness in annuities certain*. A. De Schepper, F. De Vijlder, M.J. Goovaerts, R. Kaas, *Insurance: Mathematics and Economics* 11.4, 271–281 (1992) [A]
10. *Editorial*. M.J. Goovaerts, R. Kaas. *Insurance: Mathematics and Economics* 11.2, 81–82 (1992)
11. *Editorial*. M.J. Goovaerts, R. Kaas. *Insurance: Mathematics and Economics* 13.2, 99 (1993)
12. *How to (and how not to) compute stop-loss premiums in practice*. R. Kaas, *Insurance: Mathematics and Economics*, 13.3, 241–254 (1994) [A]
13. *Premieaanpassing bij eigen risico en inflatie*. R. Kaas, P.A. van den Brom. In: L.A.A. van den Bergh et al.; *Heterogeniteit in Verzekering*, 515–522 (1994)
14. *1669 Christiaan and Ludwig Huygens, Extracts from Letters*. H. Wolthuis, R. Kaas, 129–143. In: S. Haberman, T.A. Sibbett (1995). *History of Actuarial Science, Volume I Life tables and Survival Model Part I*, Pickering, London (1995)
15. *1740 Nicholas Struyck, Appendix to Introduction to General Geography*. H. Wolthuis, R. Kaas (1995), 207–241. In: S. Haberman, T.A. Sibbett, *History of Actuarial Science, Volume I Life tables and Survival Model Part I*, Pickering, London (1995)
16. *Some alternatives for the individual model*. R. Kaas & H.U. Gerber, *Insurance: Mathematics and Economics*, 15, 127–132 (1995) [A]
17. *Ordering claim size distributions and mixed Poisson probabilities*. R. Kaas & O. Hesselager, *Insurance: Mathematics and Economics*, 17.2, 193–201 (1995) [A]
18. *Editorial*. M.J. Goovaerts, R. Kaas, H. Wolthuis. *Insurance: Mathematics and Economics* 15.2/3, 119 (1995)

1996–2000

1. *A stochastic approach to catastrophic risks*. M. Vanneste, M.J. Goovaerts, F. De Vijlder, R. Kaas, *Scandinavian Actuarial Journal* 1996, 99–108 (1996) [B]
2. *Een Schade-actuariële truuk met GLIM*. R. Kaas en D.R. Dannenburg. *De Actuaris*, 3/4, 37–38 (1996)

3. *Exact credibility for weighted observations*. R. Kaas, D.R. Dannenburg, M.J. Goovaerts, ASTIN Bulletin 27.2, 287–295 (1997) [B]
4. *A recursive scheme for perpetuities with random positive interest rates, Part I: Analytical results*. A. De Schepper, M.J. Goovaerts, R. Kaas, Scandinavian Actuarial Journal 1997, 1–10 (1997) [B]
5. *Gegeneraliseerde Lineaire Modellen voor IBNR-driehoeken*. D.R. Dannenburg, R. Kaas, L.N. Usman. Het Verzekerings-Archief 75/4, 149–158 (1998)
6. *Preface*. R. Kaas, H. Wolthuis, M.J. Goovaerts. Insurance: Mathematics and Economics 24.1–2, 1 (1999)
7. *Preface*. R. Kaas, M.J. Goovaerts, De Vijlder. Insurance: Mathematics and Economics 25.3, 259 (1999)
8. *Editorial*. H.U. Gerber, M.J. Goovaerts, R. Kaas, E. Shiu. Insurance: Mathematics and Economics 26.2–3, 117 (2000)
9. *Obituary for Bob Alting von Geusau*. R. Kaas, ASTIN Bulletin 30.1, 255–256 (2000)
10. *Discussion on the paper 'Self-Annuity and Ruin in Retirement' by Milevsky and Robinson*. J. Dhaene, M.J. Goovaerts, R. Kaas, North American Actuarial Journal, Vol. 4.4, 124–126 (2000) [B]
11. *Upper and Lower Bounds for Sums of Random Variables*. R. Kaas, J. Dhaene, M.J. Goovaerts, Insurance: Mathematics and Economics 27.2, 151–168 (2000) [A]
12. *Het aanzien van 1999–2000: de sectie actuariaat verlegt haar koers*. R. Kaas (Interview), De Actuaris (July 2000)
13. *Wetenschappelijke congressen: 'broodnodig voor ons werk'*. A.E. van Heerwaarden, R. Kaas, J. Spreeuw (Interview), De Actuaris, 10–13 (November 2000)

2001–2005

1. *The valuation of cash flows for dividend paying securities*. De Schepper, A., Goovaerts, M.J., Dhaene, J., Vyncke, D. & Kaas, R. (2001). In Proceedings Astin Colloquium. Washington.
2. *Risk measures, measures for insolvency risk and economical capital allocation*. M.J. Goovaerts, J. Dhaene, R. Kaas, Tijdschrift voor Economie en Management XLVI, 545–562 (2001)
3. *Stable laws and the distribution of cash-flows*. Goovaerts, M.J., De Schepper, A., Vyncke, D., Dhaene, J. & Kaas, R. (2001). In Proceedings AFIR colloquium. Toronto.
4. *On the distribution of cash-flows using Esscher transforms*. Vyncke, D., Goovaerts, M.J., De Schepper, A., Kaas, R. & Dhaene, J. (2001). In Proceedings of the Fifth International Congress on Insurance: Mathematics and Economics. State college.
5. *A simple geometric proof that comonotonic risks have a convex largest sum*. Kaas, R., Dhaene, J., Vyncke, D., Goovaerts, M.J. & Denuit, M. (2001). In Proceedings of the fifth International Congress on Insurance: Mathematics and Economics. State College.

6. *Preface*. M.J. Goovaerts, R. Kaas. *Insurance: Mathematics and Economics* 29.3, 297 (2001)
7. *The concept of comonotonicity in Actuarial Science and Finance: Theory*. Dhaene, J., Denuit, M., Goovaerts, M.J., Kaas, R. & Vyncke, D. (2001). In *Proceedings of the fifth International Congress on Insurance: Mathematics and Economics*, State College.
8. *The concept of comonotonicity in Actuarial Science and Finance: Theory*. J. Dhaene, M. Denuit, M.J. Goovaerts, R. Kaas & D. Vyncke, *Insurance: Mathematics & Economics*, 31.1, 3–33 (2002) [A]
9. *The concept of comonotonicity in Actuarial Science and Finance: Applications*. J. Dhaene, M. Denuit, M.J. Goovaerts, R. Kaas & D. Vyncke, *Insurance: Mathematics & Economics*, 31.2, 133–161 (2002) [A]
10. *Bounds for present value functions with stochastic interest rates and stochastic volatility*. De Schepper, A., Goovaerts, M.J., Dhaene, J., Kaas, R. & Vyncke, D. (2001). In *Proceedings of the fifth International Congress on Insurance: Mathematics and Economics*, State College.
11. *Bounds for present value functions with stochastic interest rates and stochastic volatility*. De Schepper, A., Goovaerts, M.J., Dhaene, J., Kaas, R. & Vyncke, D. (2002). *Insurance: Mathematics & Economics*, 31, 87–103 [A]
12. *Editorial*. R. Kaas. *Insurance: Mathematics and Economics* 30.3, 293–296 (2002)
13. *A simple geometric proof that comonotonic risks have a convex largest sum*. R. Kaas, J. Dhaene, D. Vyncke, M.J. Goovaerts & M. Denuit, *ASTIN Bulletin*, 32, 71–77 (2002) [B]
14. *Some problems in actuarial finance involving sums of dependent risks*. M.J. Goovaerts & R. Kaas, *Statistica Neerlandica*, 56, 253–269 (2002) [B]
15. *Actuariële Statistiek – verleden en toekomst*. R. Kaas, *De Actuaris*, March, 20–22 (2002)
16. *Economic capital allocation derived from risk measures*. Goovaerts, M.J., Kaas, R. & Dhaene, J. (2002). In *Proceedings 6th International Congress on Insurance: Mathematics and Economics*. Lisbon, Portugal.
17. *Economic capital allocation derived from risk measures*, J. Dhaene, M.J. Goovaerts, R. Kaas, *North American Actuarial Journal* 7(2), 44–59 (2003) [A]
18. *A unified approach to generate risk measures*. M.J. Goovaerts, R. Kaas, J. Dhaene, Q. Tang, *ASTIN-Bulletin* 33.2, 173–191 (2003) [B]
19. *Stable laws and the present value of cash-flows*. M.J. Goovaerts, A. De Schepper, D. Vyncke, J. Dhaene, R. Kaas, *North American Actuarial Journal* 7(4), 32–43 (2003) [B]
20. *Note on the tail behavior of random walk maxima with heavy tails and negative drift*. R. Kaas, Q. Tang, *North American Actuarial Journal* 7.3, 57–61 (2003) [B]
21. *The hurdle-race problem*. S. Vanduffel, J. Dhaene, M.J. Goovaerts, R. Kaas, *Insurance: Mathematics and Economics*, 33.2, 405–414 (2003) [A]
22. *On the distribution of cash-flows using Esscher transforms*. D. Vyncke, M.J. Goovaerts, A. De Schepper, R. Kaas, J. Dhaene, *Journal of Risk and Insurance* 70(3), 563–575 (2003) [B]

23. *The valuation of cash-flows in the presence of dividend barriers.* A. De Schepper, M.J. Goovaerts, J. Dhaene, D. Vyncke, R. Kaas, *Medium Econometrische Toepassingen* 11(2), 18–25 (2003)
24. *De tweede fase: alarmfase één voor het actuarieaat?* R. Kaas (Interview), *De Actuaris*, May 2003, 12–14 (2003)
25. *The valuation of cash-flows in the presence of dividend barriers.* De Schepper, A., Goovaerts, M.J., Dhaene, J., Vyncke, D. & Kaas, R. (2003). *Medium Econometrische Toepassingen*, 11, (2), 18–25.
26. Goovaerts, M.J., Kaas, R., Dhaene, J. & Tang, Q. (2003). Some New Classes of Consistent Risk Measures, *Proceedings of the First Brazilian Conference on Statistical Modelling in Insurance and Finance*, Sept 1–6, 2003, Ubatuba.
27. *Some new classes of consistent risk measures.* Goovaerts, M.J., Kaas, R., Dhaene, J. & Tang, Q. (2004). *Insurance: Mathematics and Economics*, 34.3, 505–516 [A]
28. *Discussion on the paper “Self Annuitization and Ruin in Retirement”.* Dhaene, J., Goovaerts, M.J. & Kaas, R. (2004). *North American Actuarial Journal*, 4, 124–126 [B]
29. *A comonotonic image of independence for additive risk measures.* Goovaerts, M.J., Kaas, R., Laeven, R.J.A. & Tang, Q. (2004). *Proceedings of the 8th International IME Conference*.
30. *A comonotonic image of independence for additive risk measures.* Goovaerts, M.J., Kaas, R., Laeven, R.J.A. & Tang, Q. (2004). *Proceedings of the 3rd Conference in Actuarial Science & Finance*, Samos, Greece, September 2–5.
31. *A Comonotonic Image of Independence for Additive Risk Measures*, Goovaerts, M.J., Kaas, R., Laeven, R.J.A., Tang, Q. (2004). *Insurance: Mathematics and Economics*, 35, (3), 581–594 [A]
32. *Editorial.* H.U. Gerber, M.J. Goovaerts, R. Kaas, E.S.W. Shiu. *Insurance: Mathematics and Economics* 35.1, 1–1 (2004)
33. *Capital requirements, risk measures and comonotonicity.* Dhaene, J., S. Vanduffel, Q. Tang, M.J. Goovaerts, R. Kaas, D. Vyncke (2004). *Belgian Actuarial Bulletin*, Vol. 4, 53–61, 2004.
34. *Some useful counterexamples regarding comonotonicity.* Kaas, R., M. Goovaerts, Q. Tang (2004). *Belgian Actuarial Bulletin* 4, 1–4.
35. *Comonotonic approximations for optimal portfolio selection problems: the case of terminal wealth.* Dhaene, J., Vanduffel, S., Goovaerts, M.J., Kaas, R. & Vyncke, D. (2004). *Handelingen van het contactforum, 2nd Actuarial and Financial Mathematics Day (6 February 2004)*, 53–70.
36. *Risk utility ranking.* Goovaerts, M.J., R. Kaas (2004). In *Encyclopedia of Actuarial Science*, Wiley, Vol. III, 1513–1515.
37. *Adjustment coefficient.* Kaas, R. (2004). In *Encyclopedia of Actuarial Science*, Wiley, Vol. I, 27–30.
38. *Beekman’s convolution formula.* Kaas, R. (2004). In *Encyclopedia of Actuarial Science*, Wiley, Vol. I, 167–169.

39. *Generalized Linear Models*. Kaas, R. (2004). In *Encyclopedia of Actuarial Science*, Wiley, Vol. II, 759–769.
40. *Ordering of risks*. Kaas, R. (2004). In *Encyclopedia of Actuarial Science*, Wiley, Vol. III, 1225–1229.
41. *Wiley’s “Encyclopedia of Actuarial Science”* (book review). Wolthuis, H. & Kaas, R. (2005). *De Actuaris*, March, 36–37.
42. *Comonotonic approximations for optimal portfolio selection problems*. Dhaene, J. Vanduffel, S., Goovaerts, M.J., Kaas, R. & Vyncke, D. (2005). *Journal of Risk and Insurance*, 72, (2), 253–300 [B]
43. *A large deviation result for aggregate claims with dependent claim occurrences*. Kaas, R. & Tang, Q. (2005). *Insurance: Mathematics & Economics*, 36, (3), 251–259 [A]
44. *The tail probability of discounted sums of Pareto-like losses in insurance*. Goovaerts, M.J., Kaas, R., Laeven, R.J.A., Tang, Q. & Vernic, R. (2005). *Scandinavian Actuarial Journal*, (6), 446–461 [B]
45. *Compound Poisson distribution and GLMs – Tweedies distribution*. Kaas, R. (2005). *Handelingen van het contactforum, 3rd Actuarial and Financial Mathematics Day (4 February 2005)*, 3–12.
46. *Risk measures and optimal portfolio selection*. Dhaene, J., Vanduffel, S., Tang, Q., Goovaerts, M.J., Kaas, R. & Vyncke, D. (2003). *Proceedings of the Seventh International Congress on Insurance: Mathematics and Economics, Lyon*.
47. *Decision principles derived from risk measures*. Goovaerts, M.J., Kaas, R. & Laeven, R.J.A. (2005). *Proceedings of the 2nd Brazilian Conference on Statistical Modelling in Insurance and Finance. Ubatuba, Brasil*.
48. *Decision principles derived from risk measures*. Goovaerts, M.J., Kaas, R. & Laeven, R.J.A. (2005). *Proceedings of the 7th International Hercma Conference, Athens, Greece*.
49. *Decision principles derived from risk measures*. Goovaerts, M.J., Kaas, R. & Laeven, R.J.A. (2005). *Proceedings of the 36th International Astin Colloquium. Zürich, Switzerland*.

2006–2010

1. *Risk measurement with equivalent utility principles*. Denuit, M., Dhaene, J., Goovaerts, M., Kaas, R. & Laeven, R. (2006). In Rüschemdorf, L. (ed.), *Risk Measures: General Aspects and Applications*, special issue of *Statistics & Decisions*, 24, (1), 1–25 [B]
2. *Editorial: The 10th IME conference in Leuven, 2006*. Kaas, R., M.J. Goovaerts, E.S.W. Shiu, H.U. Gerber, D. Vyncke (2008). *Insurance: Mathematics and Economics* 42(2), 467 [A]
3. *Invloed van IFRS en Solvency 2 op het risicobeheer van verzekeringsondernemingen*. Vanduffel, S., Dhaene, J., Goovaerts, M.J. & Kaas, R. (2006). *Bank- en Financiewezen*, 5.
4. *Risk measures and comonotonicity: a review*. Dhaene, J. Vanduffel, S. Tang, Q. Goovaerts, M.J. Kaas, R. & Vyncke, D. (2006). *Stochastic Models*, 22, 573–606 [B]

5. *Rational reconstruction of frailty-based mortality models by a generalisation of Gompertz law of mortality*, Kaas, R & W.J. Willemse (2007). *Insurance: Mathematics and Economics*, 40, 468–484 [A]
6. *Decision Principles derived from Risk Measures*. Goovaerts, M., R. Kaas, R. Laeven (2007) *Hermis* Vol. 8, pp. 109–124.
7. *De opleiding Actuariële wetenschappen: verleden, heden en toekomst*. Kaas, R. (2007) In ‘Sensei in het actuaariaat’ (A.E. van Heerwaarden, Willemse, W.J., Leuven, G.N.W. [red.]), *Liber Amicorum* voor Prof. Dr. H. Wolthuis
8. *Worst VaR Scenarios with Given Marginals and Measures of Association*. R. Kaas, R.J.A. Laeven, R.B. Nelsen (2008), *Insurance: Mathematics & Economics*, *Insurance : Mathematics & Economics*, 44(2), 146–158 [A]
9. *Optimal approximations for risk measures of sums of lognormals based on conditional expectations*. Vanduffel, S., X. Chen, J. Dhaene, M. Goovaerts, L. Henrard, R. Kaas (2008). *Journal of Computational and Applied Mathematics*, 221(1), 202–218 [B]
10. *The R in Modern ART*. (2008). Patrick Poon Actuarial Science Workshop, Hongkong, July 14.
11. *Publishing in Insurance: Mathematics and Economics*. (2008). Elsevier Author Workshop at the IME Conference, Dalian, China, July 15.
12. *Editorial*. Kaas, R., J. Loos, H.U. Gerber, M.J. Goovaerts, E.S.W. Shiu, (2009). *Insurance: Mathematics and Economics* 44(2), 261–263.
13. *A Note on Additive Risk Measures in Rank-Dependent Utility*. Goovaerts, M.J. R. Kaas, R.J.A. Laeven (2010). *Insurance: Mathematics and Economics* *tba* [A]
14. *Decision principles derived from risk measures*. Goovaerts, M.J. R. Kaas, R.J.A. Laeven (2010). *Insurance: Mathematics and Economics* *tba* [A]

2011–2015

1. *Worst case risk measurement: back to the future?* Goovaerts, M.J., R. Kaas, R.J.A. Laeven *tba*

6 Various scientific activities

- Managing Editor *Insurance: Mathematics & Economics*, Elsevier (1990 – present) [2008 Impact Factor: 1.477; 5-Year Impact Factor: 1.577]
- Senior Researcher of Netspar (2007–2009)
- Head of Actuarial Science Research program (2003–2007)
- Referee for *Insurance: Mathematics & Economics*, *ASTIN-Bulletin*
- Selected papers in honour of Hans Gerber, Special issue of IME, edited by M. Goovaerts, R. Kaas and E. Shiu
- Kaas, R (2007–2010): Member of Scientific Committee, AFMath Conference, Brussels

- Kaas, R (2013): Head of Scientific Committee, ASTIN-colloquium, The Netherlands
- Initiator of a series of Insurance: Mathematics and Economics-conferences; main organizer of 1st conference (Amsterdam, 1997, August 24–27); involved in further conferences as organizer and/or member of the scientific committee
- Member of the ASTIN-Committee of the Netherlands, 1991–2001
- Member of the Editorial Board of *Het Verzekerings-Archief*, 1992–1996
- Co-supervisor of PH.D. theses by A.E. van Heerwaarden (1991), D.R. Dannenburg (1996)
- Member of the promotion committee of:
 1. Ann Steenackers, *Risk analysis with the classical actuarial risk model*. KU Leuven (1992)
 2. Bart Kling, *Life insurance, a non-life approach*, Universiteit van Amsterdam (1993)
 3. Jaap Spreeuw, *Heterogeneity of hazard rates in insurance*, Universiteit van Amsterdam (1999)
 4. David Vyncke, *Comonotonicity: the perfect dependence*. KU Leuven (2003)
 5. Tom Hoedemakers, *Modern reserving techniques for the insurance business*, KU Leuven (2005)
 6. Steven Vanduffel, *Comonotonicity – From risk measurement to risk management*, Universiteit van Amsterdam (2005)
 7. Slimane Grine, *Multi-layer model for correlated instruments – Application to energy markets*, KU Leuven (2010)
 8. Roger Laeven, *Essays on Risk Measures and Stochastic Dependence*, University of Amsterdam (2005)
 9. Alexander van Haastrecht, *Pricing Long-term Options with Stochastic Volatility and Stochastic Interest Rates*, University of Amsterdam (2010)
 10. Richard Plat, *tba*, University of Amsterdam (2010)
- Invited speaker, 8th International IME Conference, Rome, Italy, June 14–16, 2004. *Why actuaries should know about Generalized Linear Models*,
- Chairman of the Board of Curators for the part-time professors Ronner, Van Rijckevorsel, Goovaerts.
- Chairman of the Board of Examiners ‘Verzekeringskunde’ (Insurance studies)

7 Grants, prizes, honours

- NWO-grant on research proposal *Approximating distributions and estimating the ruin probability in the framework of asset-liability management for dependent lines of insurance business*. R. Vernic, with R. Kaas and M.J. Goovaerts (2003–2004)
- NWO-grant on research project *The theory of dependency applied to asset-liability modelling*. Q. Tang, supervised by M.J. Goovaerts and R. Kaas (2002–2004)

- 2004 Individual Research Grant awarded by the Actuarial Education and Research Fund. Kaas, R., R.J.A. Laeven (2004)
- Travel fund, FWO Flanders, Belgium. Kaas, R. & Laeven, R.J.A. (2005)
- The Actuarial Foundation (TAF), the Casualty Actuarial Society (CAS) and the Committee on Knowledge Extension Research (CKER) grant for the research project *Stochastic claims reserving: micro models for run-off, incorporating expert opinion and the interaction with extreme value methodology*. Antonio, K. & Kaas, R. (2008, March)
- Individual Research Grant awarded by the Actuarial Education and Research Fund, Society of Actuaries. Kaas, R. & Laeven, R.J.A. (2005)