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Education

- 1998 - D.Sc., Operations Research Department, School of Engineering and Applied Science, The George Washington University. Dissertation Title: *A General Bayesian Inference Model for Accelerated Life Testing*
- 1991 - Registered Technological Designer, Mathematical Control- and Policy Modeling, Delft University of Technology, The Netherlands. Thesis Title: *Dependence Modeling for Uncertainty Analysis*
- 1989 - M.S., Mathematics & Computer Science, Delft University of Technology, the Netherlands. Thesis Title: *Expert Opinion and Maintenance Data to Determine Life Time Distributions*

Experience

November 2010 to Present: Courtesy Appointment - Professor, Decision Sciences Department, Business School, The George Washington University, Washington D.C.

September 2008 to Present: Professor, Engineering Management and Systems Engineering Department, School of Engineering and Applied Science, The George Washington University, Washington D.C.

September 2004 to September 2008: Associate Professor, Engineering Management and Systems Engineering Department, Department, School of Engineering and Applied Science, The George Washington University, Washington D.C.

September 1999 to September 2004: Assistant Professor, Engineering Management and Systems Engineering Department, Department, School of Engineering and Applied Science, The George Washington University, Washington D.C.

September 1997 to August 1999: Visiting Assistant Professor, Engineering Management Department, Department, School of Engineering and Applied Science, The George Washington University, Washington D.C.

January 1994 – August 1997: Research Scientist, Operations Research Department, Department, School of Engineering and Applied Science, The George Washington University, Washington, D.C.

March 1993 – December 1993: Project Engineer, National Aerospace Laboratory, Amsterdam, The Netherlands

April 1992 – November 1992: Research Associate, Operations Research Department, The George Washington University

January 1991 – January 1992: Research Analyst, Risk Analysis Department, DSM Research, The Netherlands

Honors and Awards

- 2005 - Inducted as Faculty member to the international honor society Omega Rho
- 2004 - EMSE Professor of the Year by School of Engineering and Applied Science Students Engineers' Council
- 1999 - Semifinalist in the 1999 Franz Edelman Prize Awarded by INFORMS
- 1998 - Inducted as student member to the international honor society Omega Rho
- 1989 - Graduated Cum Laude (MS) from Delft University of Technology, The Netherlands

Research Interests

Distribution Theory; Simulation Modeling; Reliability Analysis; Bayesian Networks; Bayesian Inference; Expert Judgment Elicitation; Uncertainty Analysis; Probabilistic Risk Analysis. Specific Topics: Maritime Transportation Risk Assessment Utilizing Simulation; Aggregation of Data and Engineering/Expert Judgment;

Statistical Dependence Modeling for Monte Carlo Uncertainty Analysis; Univariate Distributions with Bounded Support, and Bayesian Accelerated Life Testing Inference.

Research Contracts and Grants – Total \$2,924,461 (PI - \$2,062,052; Co-PI - \$862,409)

2016-2017: VTRA 2015, updating the VTRA 2010, PI . Funded by the Washington State Department of Ecology, PI - \$164,711. Start Date: 2-22-2016 End Date: 1-9-2017.

2012-2013: "VTRA 2010, Preventing Oil Spills from Large Ships and Barges in Northern Puget Sound & Strait of Juan De Fuca". Funded by the Puget Sound Partnership, PI - \$173,272. Start Date: 11-19-2012, End Date: 8-31-2013.

2012-2013: Vessel Traffic Risk Assessment (VTRA): Updating the 2005 VTRA GW/VCU MTS Simulation Model from VTOSS 2005 to VTOSS 2010 data. Funded by the Makah Indian Tribal Council, PI - \$74,873. Start Date: 8-14-2011, End Date: 2-28-2012.

2011-2014: "Logistic Management Institute Fellowship Program for Doctoral Students". PI: 2011 - \$36,000; PI: 2012 - \$44,000; PI: 2013 - \$40,000.

2006-2008: "Assessment of Oil Spill Risk due to Potential Increased Vessel Traffic at Cherry Point, Washington " BP award, PI - \$1,127,408. Start Date: 6-1-2006, End Date: 8-31-2008.

2002-2004: "Collaborative Research: Speaking the Truth in Maritime Risk Assessment" National Science Foundation award SES-0213700, PI - \$139,305 Start Date: 8-15-2002, End Date: 8-15-2004.

2002: "Development of a Maritime Simulation for San Francisco Bay", San Francisco Bay Area Water Transit Authority (sub Contract to ABS Consulting), PI -\$144,889 Start Date: 1-3-2002, End Date: 31-12-02.

2002: "Modified Prince William Sound Simulation". RCAC (Regional Citizen Advisory Council, Alaska). PI - \$17,594 Start Date: 23-4-2002, End Date: 15-6-2002.

2000 - 2002: "Incremental Seismic Rehabilitation Manual support Project". Subcontract to FEMA funded Project, Incremental Seismic Rehabilitation Manual (RPH EMW-2000-RP-0023). PI - \$17,409 Start Date: September 26, 2000, End Date: September 25, 2002.

1999 - 2000: "The Collection, Synthesis, and Quality Assessment of Data Describing the Response to Human Needs following the 1999 Turkey Earthquakes", Co-PI, \$75,000 Start Date: 10-1-1999, End Date: 9-30-2000. (PI of NSF Award: J.R. Harrald, The George Washington University).

1998 – 1999: "Risk Mitigation in Passenger Vessel Operations", Washington State Ferry Risk Assessment, Washington State Transportation Commission, Olympia, Washington, Co-PI \$770,000 Start Date: 7-1-1998, End Date: 7-1-2000. (PI of Award: J.R. Harrald, The George Washington University).

Journal Publications

1. J. René van Dorp (2019). A Dependent Project Evaluation and Review Technique, A Bayesian Network Approach, *European Journal of Operational Research*. Accepted 7/23/2019.
2. J. René van Dorp and M. Chris Jones (2019). The Johnson System of Frequency Curves – Historical, Graphical and Limiting Perspectives, *The American Statistician*, Published Online, 25 June 2019, DOI: 10.1080/00031305.2019.1637778
3. J. René van Dorp, Thomas A. Mazzuchi, Jorge E. Garcidueñas (2014), Comparing Accelerated Life Testing Designs Within A Single Bayesian Inferential Framework, Wiley StatsRef: Statistics Reference Online, Published Online, 29 SEP 2014, DOI: 10.1002/9781118445112.stat04190
4. Donatella Vicari and Johan Rene van Dorp (2013), On a bounded bimodal two-sided distribution fitted to the Old-Faithful Geyser Data, *Journal of Applied Statistics*, Vol. 40, No. 9, pp. 1965-1978.

5. Mazzuchi, Thomas A., van Dorp, Johan René (2012). A Bayesian expert judgement model to determine lifetime distributions for maintenance optimization, *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, Vol. 8, No. 4, pp. 307-315. van Dorp, Johan René (2012).
6. Indirect parameter elicitation procedures for some distributions with bounded support – with applications in Program Evaluation and Review Technique (PERT), *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, Vol. 8, No. 4, pp. 393-401.
7. Amin, Rohan, Julie Ryan, and Johan van Dorp (2012). Detecting Targeted Malicious Email Using Persistent Threat and Recipient Oriented Features. *IEEE Security Privacy Magazine*, Vol. 10, No. 3, pp. 64-71.
8. C. B. García, J. García Pérez Mazzuchi and J.R. van Dorp (2011). Modeling Heavy-Tailed, Skewed and Peaked Uncertainty Phenomena with Bounded Support, *Statistical Methods and Applications*, Vol. 20, No. 4., pp. 463–486.
9. J.M. Herrerías-Velasco, R. Herrerías-Pleguezuelo and J. R. van Dorp (2011). Revisiting the PERT mean and variance, *European Journal of Operational Research*, Vol. 210, 448–451
10. Christian M. Salmon, Vahid Motevalli, John Harrald, Johan René van Dorp (2010). Quantifying Metrics of External Airport Risk Exposure in Vicinity of Public Use, Nontowered Airports, *Transportation Research Record: Journal of the Transportation Research Board*, Volume 2184, pp. 31-40, [DOI 10.3141/2184-04](https://doi.org/10.3141/2184-04), Online Date: Friday, December 17, 2010.
11. S. Kotz and J.R. van Dorp (2010). Generalized Diagonal Band Copulas with Two-Sided Generating Densities, *Decision Analysis*, Vol. 7, No. 2, pp. 196-214.
12. J. R. van Dorp and J. R.W. Merrick (2009). On a risk management analysis of oil spill risk using maritime transportation system simulation, *Annals of Operations Research*, published online before print December 12, 2010, DOI: 10.1007/s10479-009-0678-1. (<http://www.springerlink.com/content/w168111018754401/>)
13. G. van de Wiel and J. R. van Dorp (2009). An oil outflow model for tanker collisions and groundings, *Annals of Operations Research*, published online before print November 25, 2010, DOI: 10.1007/s10479-009-0674-5. (<http://www.springerlink.com/content/d7432xmg431v42q7/>)
14. José Manuel Herrerías-Velasco, Rafael Herrerías-Pleguezuelo and Johan René van Dorp (2009). "Generalized Two-Sided Power Distributions", *Journal of Applied Statistics*, Vol. 36 (5), pp. 573-587.
15. Donatella Vicari, Johan René van Dorp and Samuel Kotz (2008). "Two-Sided Generalized Topp and Leone Distributions", *Journal of Applied Statistics*, Vol. 35 (10), pp. 1115 - 1129.
16. Johan René van Dorp, Salvador Cruz Rambaud, José García Pérez, and Rafael Herrerías Pleguezuelo (2007). "An Elicitation Procedure for the Generalized Trapezoidal Distribution with a Uniform Central Stage", *Decision Analysis Journal*, Vol. 4, pp. 156 - 166.
17. A. Singh, J. Rene van Dorp and T.A. Mazzuchi (2007). "A Novel Asymmetric Distribution with Power Tails", *Communications in Statistics, Theory and Methods*, Vol. 36 (2). pp. 235-252.
18. Fernandez, Lauren S., Joseph A. Barbera, and Johan R. van Dorp (2006). "Strategies for Managing Volunteers during Incident Response: A Systems Approach." *Homeland Security Affairs II*, no. 3 (October 2006).
19. J.R. van Dorp, A. Singh and T.A. Mazzuchi (2006). "The Doubly-Pareto Uniform Distribution with Applications in Uncertainty Analysis and Econometrics", *Mediterranean Journal of Mathematics*, Vol. 3 (2), pp. 205-225.
20. L. Fernandez, J. Barbera and J.R. van Dorp (2006). "Spontaneous Volunteer Response to Disasters: The Benefits and Consequences of Good Intentions", *Journal of Emergency Management*. Vol. 4 (5), pp. 57-68.
21. S. Kotz and J. R. van Dorp (2006). "A Novel Method for Fitting Unimodal Continuous Distributions on a Bounded Domain". *IIE Transactions*, Vol. 38, pp. 421-436.
22. Merrick, J. R. W. and J. R. van Dorp (2006). "Speaking the Truth in Maritime Risk Assessment". *Risk Analysis*, Vol. 26 (1), pp. 223 - 237.
23. P. Szwed, J. Rene van Dorp, J.R.W. Merrick, T.A. Mazzuchi and A. Singh (2006). "A Bayesian Paired Comparison Approach for Relative Accident Probability Assessment with Covariate Information", *European Journal of Operations Research*, Vol. 169 (1), pp. 157-177.
24. J.R. van Dorp & T.A. Mazzuchi (2005), "A General Bayes Weibull Inference Model for Accelerated Life Testing", *Reliability Engineering and System Safety*, Vol. 90, pp. 140-147.
25. Merrick, J. R. W., J. R. van Dorp and A. Singh (2005). "Analysis of Correlated Expert Judgments from Pairwise Comparisons". *Decision Analysis*, Vol. 2 (1), pp. 17-29.

26. S. Kotz and J.R. van Dorp (2005). "A link between Two-Sided Power and Asymmetric Laplace Distributions: with Applications to Mean and Variance Approximations". *Statistics and Probability Letters*, Vol. 71, pp. 382-394.
27. J.R.W. Merrick, J. Rene van Dorp, V. Dinesh (2004). "Assessing Uncertainty in Simulation Based Maritime Risk Assessment". *Risk Analysis*, Vo. 25 (3), pp. 731-743.
28. J.R. van Dorp and S. Kotz (2004). "Uneven Two-Sided Power Distributions: With Applications in Econometric Models", *Statistical Methods and Applications*, Vol. 13, pp. 285-313.
29. J.R. van Dorp and T.A. Mazzuchi (2004). "A General Bayes Exponential Inference Model for Accelerated Life Testing", *Journal of Statistical Planning and Inference*. 119 (1): pp. 55-74.
30. J.R. van Dorp (2004). "Statistical Dependence through Common Risk Factors: With Applications in Uncertainty Analysis". *European Journal of Operations Research*. Vol. 161 (1): pp. 240-255.
31. John R. Harrald, Hugh W. Stephens, and Johan Rene van Dorp (2004) "A Framework for Sustainable Port Security", *Journal of Homeland Security and Emergency Management*: Vol. 1: No. 2, Article 12.
32. J.R. van Dorp and S. Kotz (2003). "Generalizations of Two Sided Power Distributions and their Convolution", *Communications in Statistics: Theory and Methods*, Vol. 32 (9): pp. 1703 – 1723.
33. J.R. van Dorp and S. Kotz (2003). "Generalized Trapezoidal Distributions", *Metrika*, Vol. 58 (1): pp. 85-97.
34. J.R.W. Merrick, J.R. van Dorp, J.P. Blackford, G.L. Shaw, T.A. Mazzuchi and J.R. Harrald (2003). "A Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Using a Maritime Simulation Model", *Reliability Engineering and System Safety*, Vol. 81 (2): pp. 119-132.
35. J.R.W. Merrick, J. R. van Dorp, T. Mazzuchi, J. Harrald, J. Spahn and M. Grabowski (2002). "The Prince William Sound Risk Assessment". *Interfaces*, Vol. 32 (6): pp.25-40.
36. S. Kotz and J.R. van Dorp (2002). "A Versatile Bivariate Distribution on a Bounded Domain: Another Look at the Product Moment Correlation", *Journal of Applied Statistics*, Vol. 29 (8): pp. 1165-1179.
37. J.R. van Dorp and S. Kotz (2002). "A Novel Extension of the Triangular Distribution and its Parameter Estimation", *The Statistician*, Vol. 51 (1): pp. 63-79.
38. J.R. van Dorp and S. Kotz (2002). "The Standard Two Sided Power Distribution and its Properties: with Applications in Financial Engineering", *The American Statistician*, Vol. 56 (2): pp. 90-99.
39. J.R. van Dorp J.R.W. Merrick, J.R. Harrald, T.A. Mazzuchi, and M. Grabowski (2001). "A Risk Management procedure for the Washington State Ferries", *Journal of Risk Analysis*, Vol. 21 (1): pp. 127-142.
40. M. Grabowski, J.R.W. Merrick, J.R. Harrald, T.A. Mazzuchi, and J.R. van Dorp (2000). "Risk Modeling in Distributed, Large Scale Systems", *IEEE Transactions on Systems, Man, Cybernetics – PART A: Systems and Humans*, Vol. 30 (6): pp. 651-660.
41. J.R. van Dorp J.R.W. Merrick, J.R. Harrald, T.A. Mazzuchi, M. Grabowski, and J.E Spahn (2000). "A Systems approach to managing oil transportation risk in Prince William Sound", *Systems Engineering*, Vol 3: pp. 128-142.
42. J.R. van Dorp and T.A. Mazzuchi (2000). "Solving for the parameters of a Beta Distribution under two quantile constraints". *Journal of Statistical Computation and Simulation*, Vol. 67: pp. 189-201.
43. J.R. van Dorp and M.R. Duffey (1999). "Modeling Statistical Dependence in Risk Analysis for Project Networks". *International Journal of Production Economics*, Vol. 58: pp. 17-29.
44. M.R. Duffey and J.R. van Dorp (1999). "Risk Analysis for Large Engineering Projects: Modeling Cost Uncertainty for Ship Production Activities", *Journal of Engineering Valuation and Cost Analysis*, Vol. 2: pp. 285-301.
45. J.R. Harrald, T.A. Mazzuchi, J. E. Spahn, J.R. van Dorp, J.R.W. Merrick, S. Shrestha, M. Grabowski (1998). "Using System Simulation to Model the Impact of Human Error in a Maritime Risk Assessment". *Safety Science*, Vol. 30, pp. 235-247.
46. J.R. van Dorp, T.A. Mazzuchi and R. Soyer (1997). "Sequential Inference and Decision Making for Single Mission Systems Development", *Journal of Statistical Planning and Inference*, Vol. 62 (2): pp. 207-218.
47. J.R. van Dorp, T.A. Mazzuchi, Lt. Gen. G. E. Fornell and L.R. Pollock (1996). "A Bayes Approach to Step-Stress Accelerated Life Testing", *IEEE Transactions on Reliability*, Vol. 45 (3): pp. 491-498.

Book

1. Samuel Kotz and Johan Rene van Dorp (2004). *Beyond Beta, Other Continuous Families of Distributions with Bounded Support and Applications*, World Scientific Press, Singapore, December, 2004.

Book Chapters

1. J.R. van Dorp and T.A. Mazzuchi (2019), "Three-Point Lifetime Distribution Elicitation for Maintenance Optimization in a Bayesian Context". To appear in: State of the Art in Expert Judgement in Risk and Decision Analysis, T. Bedford, S. French, A.M. Hanea, G.F. Nane (Eds). *Springer's International Series in Operations Research and Management Science*.
2. Manuel Franco, J. René van Dorp, Juana Maria-Vivo (2012). The Generalized Trapezoidal Model in Financial Data Analysis, in Mathematical and Statistical Methods for Actuarial Sciences and Finance, Perna, Cira; Sibillo, Marilena (Eds.), 1st Edition, pp. 219-227.
3. J.R. van Dorp and S. Kotz (2006). "Modeling Income Distributions Using Elevated Distributions", in *Distribution Models Theory*, Editors: Rafael Herrerias Pleguezuelo, Jose Callejon Cespedes, Jose Manuel Herrerias Velasco. World Scientific Press, Singapore. pp. 1-25.
4. J.R. van Dorp and T.A. Mazzuchi (2004), "Parameter Specification of The Beta Distribution and Its Dirichlet Extensions Utilizing Quantiles". *Handbook of Beta Distribution and Applications*, A.K. Gupta and S. Nadarajah, eds., Marcel Dekker. Inc, pp. 283-318.

Conference Proceedings

1. J. René van Dorp (2009), On Some Elicitation Procedures for Distributions with Bounded Support – with Applications in PERT, *Risk and Decision Analysis in Maintenance Optimization and Flood Management*, M.J. Kallen and S.P. Kuniewski (Eds.) IOS Press, The Netherlands, pp. 21 - 34.
2. J. Rene van Dorp, T.A. Mazzuchi and Jorge E. Garcidueñas (2006), "A Comparison of Accelerated Life Testing Designs Within a Single Bayesian Inferential Framework", *2006 Reliability and Maintainability Symposium Proceedings*, New Port Beach, CA.
3. A.C. Sener and J. Rene van Dorp (2005), "Evolution of Technical and Economical Decision Making in Geothermal Energy Projects", *GRC Transactions*, Vol. 29, 475-481
4. J.R. W. Merrick, V. Dinesh, A. Singh, J. R. van Dorp, T.A. Mazzuchi (2003), "Propagation of Uncertainty in a Simulation-Based Maritime Risk Assessment Model Utilizing Bayesian Simulation Techniques", *Proceedings of the 2003 Winter Simulation Conference*. pp. 449-455.
5. J.R. van Dorp (2003), "A Distribution for Modeling Dependence Caused by Common Risk Factors", *ESREL Conference Proceedings*, pp. 551 - 558, Swets and Zeitlinger Publishers, Lisse, The Netherlands.
6. J.R. van Dorp & T.A. Mazzuchi (2003), "A General Bayes Weibull Inference Model for Accelerated Life Testing", *ESREL Conference Proceedings*, pp. 559 - 566, Swets and Zeitlinger Publishers, Lisse, The Netherlands.
7. P. S. Szwed and J.R. van Dorp (2002), "A Bayesian Model for Rare Event Risk Assessment Using Expert Judgment about Paired Scenario Comparisons", *ASEM National Conference Proceedings*, pp. 444-453.
8. J.R.W. Merrick, J.R. van Dorp, J.R. Harrald, T.A. Mazzuchi (2001) "Modeling risk in the dynamic environment of maritime transportation", *Proceedings of the 2001 Winter Simulation Conference*, pp. 1090 - 1099.
9. Wayne L. Andrews, Jr. and J. Rene van Dorp (2001), "An Oblique Approach to Nuclear Criticality Safety Using a Causal Sequence Model to Introduce Risk Interventions", *PVP-Vol. 417, Emerging Technologies: Advances Topics in Computational Mechanics and Risk Assessment*, Editors: D.R. Metzger, J. Tang, and Y. Urthaler, pp. 1 - 7.
10. Harrald, T.A. Mazzuchi, J.R.W. Merrick, John Spahn, J.R. van Dorp and M. Grabowski (2000). "Prince William Sound Risk Assessment: System Risk Analysis by Simulation and Expert Judgment". *Conference Proceedings 22 "Risk Management in the Marine Transportation System*, Transportation Research Board, National Research Council, pp. 65-72.
11. R. C. Waters, J. Deason and J.R. van Dorp (2000). "Technical Management: Key to Enterprise Success in the 21st Century", *proceedings 2000 ASEM National Conference*, October 4-7, 2000, Washington D.C.
12. J.R. Harrald, T.A. Mazzuchi, J.R.W. Merrick, J.R. van Dorp and M. Grabowski (1999). "Assessing Risk in the Washington State Ferry System". *Proceedings, TIEMS' 99 Delft, Netherlands*, pp. 427-437.
13. J.R. Harrald, T.A. Mazzuchi, J.R.W. Merrick, J.R. van Dorp and M. Grabowski (1999). "The Analysis of Alternative Escort Vessel Requirements in Prince William Sound". *Proceedings, 1999 International Oil Spill Conference, March*, pp. 403-407.

14. J.R. Harrald, T.A. Mazzuchi, J.R.W. Merrick, J.E. Spahn and J.R. van Dorp (1997). "Hidden assumptions and Misleading Data: Accounting for Human Error in Maritime Risk Assessment". *Proceedings 1997 of Maritime Operations: The Human Element Conference*.
15. J.R. Harrald, T.A. Mazzuchi, J.R.W. Merrick, J.E. Spahn and J.R. van Dorp (1997). "System Simulation: A Risk Management Tool for Prince William Sound", *Proceedings 1997 International Oil Spill Conference*, pp. 545-550.
16. J.R. Harrald, T.A. Mazzuchi, J.R.W. Merrick, J.E. Spahn and J.R. van Dorp (1997). "Using Simulation to Model the Impact of Human Error in Maritime Risk Assessment". *Proceedings 1997 Conference of the International Emergency Management Society (TIEMS)*, pp. 41-54.
17. T.A. Mazzuchi, R. Cooke, J.R. van Dorp, J.M. van Noortwijk and R. Dekker (1991). "The Elicitation and Use of Expert Judgment Elicitation for Maintenance Optimization", *The World Congress on Expert Systems proceedings, (J. Liebowitz, ed.)*, Pergamon Press, pp. 888-896.

Technical Reports

1. J. René van Dorp and Jason R. W. Merrick (2017). Vessel Traffic Risk Assessment 2015 - Updating the VTRA 2010, A Potential Oil Loss Comparison of Scenario Analyses by four Spill Size Categories. *Final Report submitted to the Washington State Department of Ecology*, January 2017.
2. Ifechukwu Nduka and Johan Rene van Dorp (2015), Monitoring Uncertainty in Project Completion Times: A Bayesian Network Approach, *Unpublished Manuscript*.
3. Vessel Traffic Risk Assessment (VTRA) 2010 FINAL REPORT Preventing Oil Spills from Large Ships and Barges In Northern Puget Sound & Strait of Juan de Fuca J.R. van Dorp, J.R.W. Merrick (2014).
4. Vessel Traffic Risk Assessment (VTRA) Update: Updating the 2005 VTRA GW/VCU MTS Simulation Model from VTOSS 2005 to VTOSS 2010 data (2013).
5. J.R. van Dorp, J.R.W. Merrick (2009). *A Response to Seven Additional Questions Related to the Vessel Traffic Risk Assessment (VTRA) Project*, Submitted to BP, May, 20, 2009.
6. J.R. van Dorp, J.R.W. Merrick, J.R. Harrald, M. Gabowksi (2009), "VTRA Final Report Addendum: A response to 23 comments from the Corps", Submitted to BP : 1/6/2009. Released on 3/23/2012.
7. J.R. van Dorp, J.R.W. Merrick, J.R. Harrald and M. Grabowski (2008). *Final Report: Vessel Traffic Risk Assessment (VTRA), An Assessment of Oil Spill Risk due to Potential Increased Vessel Traffic at Cherry Point, Washington*, Final Report submitted to BP, August, 31, 2008.
8. J.R. van Dorp, J.R.W. Merrick, J.R. Harrald, T.A. Mazzuchi, G.L. Shaw and J.P. Blackford (2002). *San Francisco Bay Exposure Assessment*, Final Report submitted to San Francisco Bay Water Transit Authority.
9. J.R. van Dorp and J.R.W. Merrick (2002). *Modified Prince William Sound Simulation*, Final Report submitted to RCAC (Regional Citizen Advisory Council, Alaska).
10. J.R. van Dorp, J.R.W. Merrick, J.R. Harrald and T.A. Mazzuchi (1999). *The Washington State Ferry Risk Assessment*, Final Report submitted to Blue Ribbon Panel on Washington State Ferry Safety, submitted to Washington State Transportation Commission.
11. J.R. van Dorp (1997). *A General Bayesian Inference Model for Accelerated Life Testing*, Dissertation, The George Washington University, Washington, D.C.
12. J.R. Harrald, T.A. Mazzuchi, J. R.W. Merrick, J.R. van Dorp, S. K. Shrestha, J.E. Spahn and M. Grabowski (1996). *Prince William Sound Risk Assessment*, Final Report submitted to ADEC, APSC/SERVS, PWS Regional Citizens Advisory Council, US Coast Guard, PWS Shipping Companies.
13. J.R. Harrald, T.A. Mazuchi, J.R. van Dorp and J.E. Spahn (1996). *U.S. Coast Guard, Port and Waterway Risk Assessment Guide*, The George Washington University & Institute for Crisis and Disaster Management.
14. M. Grabowski, J.R. Harrald, T.A. Mazzuchi, J.R. van Dorp and J.E Spahn (1995). *Evaluating and Monitoring Port and Waterway Risk for the Lower Mississippi River*, PHASE II report submitted to the board of commissioners of the Port of New Orleans, Washington D.C.
15. M.R. Duffey, J.R. van Dorp, L.K. Ruderapatna, P. Felix (1994). *Project Risk Analysis for Ship Production*, Final Report for research funded by ARPA grant of December 1991, "Design of the Virtual Shipyard", project No. DTMA 91-94-H-00034.
16. M.A. Piers, M.P. Loog, M.K.H. Giesberts, J.R. van Dorp and M.J.H. Couwenberg (1993). *Analysis of external safety around Schiphol International Airport* (in Dutch), Contract Report National Aerospace Laboratory (CR 93485 L), Amsterdam.

17. J.R. van Dorp (1993). *Confidence Limits for Individual Risk and Societal Risk around Schiphol International Airport*, Internal Report National Aerospace Laboratory (IW93022), Amsterdam.
18. J.R. van Dorp (1993). *Track extensions for Noise calculations* (in Dutch), Internal Report National Aerospace Laboratory (IW93021), Amsterdam.
19. J.R. van Dorp and T.A. Mazzuchi, R. Dekker, R. Cooke (1992). "A Framework for Eliciting Lifetime Distributions from Maintenance Engineers", Working paper, *Institute for Reliability and Risk Analysis*, The George Washington University, Washington D.C.
20. J.R. van Dorp (1991). *Dependence Modeling for Uncertainty Analysis*, Internal report TU Delft (Thesis Registered Technological Designer two year post-graduate program) , Delft, The Netherlands.
21. J.R. van Dorp (1989). *Expert Opinion and Maintenance Data to Determine Lifetime Distributions*, Internal report TU Delft (Masters Graduation Thesis), Delft., The Netherlands.

Software Development

1. J.R. van Dorp and J.R.W. Merrick (2016). "Vessel Traffic Risk Simulation Maritime Simulation Model 2015", funded by The Washington State Department of Ecology.
2. J.R. van Dorp and J.R.W. Merrick (2014). "Vessel Traffic Risk Simulation Maritime Simulation Model 2010", funded by Puget Sound Partnership.
3. J.R. van Dorp and J.R.W. Merrick (2015). "Vessel Traffic Risk Simulation Maritime Simulation Model Update wie11th VTOSS 2010 Data", funded by Makah American Indian Tribe.
4. J.R. van Dorp and J.R.W. Merrick (2015). "Vessel Traffic Risk Simulation Maritime Simulation Model 2005", funded by BP, used by Army Corps of Engineers.
5. J.R. van Dorp and J.R.W. Merrick (2002). "San Francisco Bay Maritime Simulation Model", used by San Francisco Bay Water Transit Authority.
6. J.R. van Dorp and J.R.W. Merrick (1999). "Washington State Ferry Risk Analysis Decision Support Tool", used by the Washington State Transportation Commission.
7. J.R. van Dorp, J.R.W. Merrick and J.E. Spahn (1996). "Prince William Sound Risk Analysis Decision Support Tool", used by the Prince William Sound Risk Assessment Steering Committee (ADEC, APSC/SERVS, PWS Regional Citizens Advisory Council, US Coast Guard, PWS Shipping Companies).
8. J.R. van Dorp (1996). "\$MART 1.4, Step-stress Model for Accelerated Reliability Testing", used by USAF and Contractors, Patent Pending.
9. J.R. van Dorp (1995). "GRASP 1.0, General Risk Assessment for Sizable Projects", used by the George Washington University.
10. R.M. Cooke, J.R. van Dorp and V. Kritchallo (1994), "UNICORN, UNcertainty analysIs with CORrelatioNs", published by AEA Technology for the European Safety and Reliability Association, used by the Delft University of Technology.

Invited Talks/Seminars

1. "Three-Point Lifetime Distribution Elicitation for Maintenance Optimization in a Bayesian Context", Seminar Department Economia Aplicada, University of Almeria, Spain, November 2018
2. "Dependent Project Evaluation and Review Technique, A Bayesian Network Approach", Seminar Department Economia Aplicada, University of Granada, Spain, November 2018.
3. "What do Coin Tosses, Decision Making under Uncertainty, The Vessel Traffic Risk Assessment 2010 and Average Return Time Uncertainty have in common?", Seminar Department of Statistics, La Sapienza, University of Rome, Italy, November 2018
4. "What do Coin Tosses, Decision Making under Uncertainty, The Vessel Traffic Risk Assessment 2010 and Average Return Time Uncertainty have in common?", Seminar Department of Values, Technology and Innovation, Section Safety and Security Science, The Delft University of Technology, The Netherlands, September 2018.
5. "Three-Point Lifetime Distribution Elicitation for Maintenance Optimization in a Bayesian Context", COST Workshop, TU Delft 2017.
6. "A Causal Chain Risk Framework for Risk Management", COST Workshop, Warsaw, 2016

7. "What do Coin Tosses, Decision Making under Uncertainty, The VTRA 2010 and Average Return Time Uncertainty have in Common?", SAMSI Institute GDRR Workshop, 2016.
8. "Monitoring Remaining Project Completion Uncertainty, a Bayes Network Approach", COST Workshop, TU Delft 206.
9. "What do Coin Tosses, Decision Making under Uncertainty, The VTRA 2010 and Average Return Time Uncertainty have in Common?", WINFORMS,, 2016
10. "Towards the Development of a Comprehensive Vessel Traffic Risk Management Procedure", Logistic Management Institute, 2013.
11. "A Bayesian Expert Judgment Model to Determine Lifetime Distributions for Maintenance Optimization", Almeria University, Almeria, Spain, 2011.
12. "Statistical Dependence through Common Risk Factors: With Applications in Uncertainty Analysis", Almeria University, Almeria, Spain, 2011.
13. "On Some Elicitation Procedures for Distributions with Bounded Support with Applications in PERT", Almeria University, Almeria, Spain, 2011.
14. "Modeling Heavy-Tailed, Skewed and Peaked Uncertainty Phenomena With Bounded Support, Almeria University", Almeria, Spain, 2011.
15. "Modeling Heavy-Tailed, Skewed and Peaked Uncertainty Phenomena With Bounded Support", Granada University, Granada, Spain, 2011.
16. "Revisiting the PERT Mean and Variance", Granada University, Granada, Spain, 2011.
17. "BEYOND BETA, Other Continuous Distribution with Bounded Support and Applications", Murcia University, Murcia, Spain, 2011.
18. "Generalized Diagonal Band Copulas with Two-Sided Generating Densities", Memorial Session for Samuel Kotz at Joint Statistical Meetings Conference, MIAMI 2011.
19. "Generalized Diagonal Band Copulas with Two-Sided Generating Densities", Presented at Distribution Theory Workshop at University of Granada, Spain, September 9, 2010.
20. "Generalized Diagonal Band Copulas with Two-Sided Generating Densities", Presented at VIII Seminario ASEPELT sobre Modelos de Generación de Distribuciones Almería, 10 y 11 de septiembre de 2009.
21. "On Some Elicitation Procedures for Distributions with Bounded Support – with Applications in PERT", a symposium in remembrance of Jan M. van Noortwijk (1961 – 2008), November 24, 2009 Delft, the Netherlands.
22. "Development of a Comprehensive Vessel Traffic Risk Management Tool", 2009 Strathclyde University Seminar Series, Glasgow, Scotland, May 2009.
23. "Development of a Comprehensive Vessel Traffic Risk Management Tool", 2008 National Harbor Safety Conference, Seattle, May 2008.
24. "A Novel Asymmetric Distribution with Power Tails", Statistics Department Seminar at American University, Washington D.C., April 2007.
25. "A Bayesian Paired Comparison Approach for Relative Accident Probability Assessment with Covariate Information", Presented at the Society for Risk Analysis Conference in Baltimore, December 2006.
26. "Two-Sided Generalized Topp and Leone (TS-GTL) distributions", Invited speaker at COMSTAT 2006 Conference, University of Rome, "La Sapienza, Rome, Italy, August 2006.
27. "A Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Utilizing Maritime Simulation", Reliability Engineering Seminar, Mechanical Engineering Department, University of Maryland Colloquium, April 2006.
28. "A Comparison of Accelerated Life Testing Designs Within A Single Bayesian Inferential Framework", *2006 Reliability and Maintainability Symposium Proceedings*, New Port Beach, CA, January 2006.
29. "Beyond Beta, Other Continuous Families of Distributions with Bounded Support and Applications", V Seminario Asepelt, Modelos de Generacion de Distribuciones. Propiedades y Aplicaciones, University of Granada, Spain, September, 2005.
30. "The Doubly-Pareto Uniform Distribution, with Applications in Uncertainty Analysis and Econometrics", International Mediterranean Congress of Mathematics 2005, University of Almeria, Spain, June, 2005.
31. "Beyond Beta, Other Continuous Families of Distributions with Bounded Support and Applications", Invited by the Editor-in-Chief N. Balakrishnan of the Journal Communications and Statistics to attend a Workshop on Distribution Theory at Bowling Green State University in Ohio, April 2005. Other invitees were:

Barry Arnold (Univ. of California, Riverside),

Ram Tripathi (Univ. of Texas, San Antonio)
John Nolan (American University, DC)
T. Kozubowski (Univ. of Nevada, Reno)
G.S. Mudholkar (Univ. of Rochester, Rochester, NY)
Felix Famoye (Central Michigan University, MI)
Arjun Gupta (Bowling Green State University, OH)

32. "Propagation of Uncertainty in a Maritime Risk Assessment Model utilizing Bayesian Simulation and Expert Judgment Aggregation Techniques", Rutgers University, Industrial and Systems Engineering Department Colloquium, September, 2004.
33. "A Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Utilizing Maritime Simulation", Rutgers University informal presentation session in Industrial and Systems Engineering Department, August, 2004.
34. "A Bayesian Paired Comparison Approach for Relative Accident Probability Assessment with Covariate Information", Student Symposium at the Delft University of Technology, The Netherlands, November, 2003.
35. "Managing Port Safety and Security Risk Using Dynamic Simulation" 2003 Institute for Defense and Homeland Security Research Summit, June 25, Ronald Reagan Building Washington, DC., <http://www.idhs.org/summit/topics.html> , July, 2003.
36. "A Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Utilizing Maritime Simulation", GWU Informs Student Chapter, February, 2003.
37. "A Systems Approach Toward Risk Intervention Prioritization in the Maritime Environment" NATO Advanced Research Workshop (Moscow, Russia), February, 2002.
38. "Risk Analysis & Risk Management", Aviation Safety Certificate Program, The George Washington University, November, 2000.
39. "A Systems Approach towards Risk Intervention Prioritization in the Maritime Environment" Maritime Operations: The Human Element, The Fifth Annual Conference on the Ship's Most Important Safety and Anti-Pollution System, Risk Assessment Experience and Studies, Washington D.C., May, 2000.
40. "A Systems Approach towards Risk Intervention Prioritization", Disaster & Risk Management Workshop, Bogazici University, Istanbul, Turkey, December, 1999.
41. "The Washington State Ferry Risk Assessment", US Coast Guard Headquarters – MSE 1 Division, Washington, D.C., November, 1999.

Conference Presentations

1. "Three-Point Lifetime Distribution Elicitation for Maintenance Optimization in a Bayesian Context", GD RR 2019, 4th Symposium on Games and Decisions in Reliability and Risk, 2019.
2. "Monitoring Remaining Project Completion Uncertainty, a Bayes Network Approach", GD RR 2015, 4th Symposium on Games and Decisions in Reliability and Risk, 2015.
3. "What do Coin Tosses, Decision Making under Uncertainty, The VTRA 2010 and Average Return Time Uncertainty have in Common?", INFORMS 2015 Annual Conference, Philadelphia, 2015
4. "A Bayesian Expert Judgment Model to Determine Lifetime Distributions for Maintenance Optimization", 2014 ISBA Conference, Cancun, Mexico, 2014
5. "Monitoring Remaining Project Completion Uncertainty, a Bayes Network Approach", INFORMS 2014 Annual Conference, San Francisco, 2013
6. "A Bayesian Expert Judgment Model to Determine Lifetime Distributions for Maintenance Optimization", Decision Analysis Society Conference, Washington DC, 2014.
7. "On a bounded bimodal bivariate two-sided distribution", INFORMS 2013 Annual Conference, Minneapolis, 2013.
8. "Modeling Heavy-Tailed, Skewed and Peaked Uncertainty Phenomena With Bounded Support", INFORMS 2012 Annual Conference, 2012.
9. "Generalized Diagonal Band Copulas with Two-Sided Generating Densities", INFORMS 2011 Annual Conference, Charlotte, North Carolina, 2011

10. "A Bayesian Expert Judgment based Maritime Accident Probability Model", 2010, Informs Conference, Austin, TX, November 7 – November 10, 2010.
11. "An oil outflow model for tanker collisions and groundings", 2009, Risk Analysis Conference in Baltimore, MD, December 9, 2009.
12. "Development of a Comprehensive Vessel Traffic Risk Management Tool", 2008, Risk Analysis Conference, Boston, December 2008.
13. "Assessing Uncertainty in Simulation Based Maritime Risk Assessment", 2003 INFORMS Conference in Atlanta Georgia, October, 2003.
14. "A Bayesian Paired Comparison Approach for Relative Accident Probability Assessment with Covariate Information", INFORMS Conference, Atlanta, Georgia, 2003.
15. "A Distribution for Modeling Dependence Caused by Common Risk Factors", *European Safety and Reliability Conference*, Maastricht, The Netherlands, 2003.
16. "A General Bayes Weibull Inference Model for Accelerated Life Testing", *European Safety and Reliability Conference*, Maastricht, The Netherlands, 2003.
17. "Modeling risk in the dynamic environment of maritime transportation" INFORMS Winter Simulation Conference, Washington, DC, 2001.
18. "A Systematic Approach Toward Risk Intervention Prioritization", EURO Conference, Rotterdam, The Netherlands, 2001.
19. "A Systems Approach towards Risk Intervention Prioritization in the Maritime Environment", Risk Analysis Conference, Arlington VA, 2000.
20. "A General Exponential Inference Model for Accelerated Life Testing", INFORMS Conference, Philadelphia, 1999.
21. "Risk Based Bidding in Project Management", INFORMS Conference, Dallas Texas, 1997.
22. "A General Bayesian Model for Accelerated Life Testing", INFORMS Conference, Dallas Texas, 1997.
23. "A Framework for Eliciting Lifetime Distributions from Engineers", INFORMS Conference, 1996.
24. "Small Sample Accelerated Reliability Testing", NATO ASI Conference: Reliability and Maintenance of Complex Systems, Antalya-Turkey, 1995.
25. "Optimal Stopping in Reliability Growth Testing", The 45-th NBER-NSF Seminar on Bayesian Inference in Econometrics and Statistics, Duke University, North Carolina, 1992.

Graduate Theses Supervised

Current: 2 D.Sc. Students – Kelly Rickard and Antonio Zavaletta.

Graduated: 11 Doctoral Students

1. Patrick Murphy, *A method for determining the cost of highly available electricity considering grid unavailability: A case study and applied analysis in Uganda*, December 2015.
2. Ifechukwu Nduka, *Modeling Project Schedule Uncertainty due to a Programmatic Risk Factor using Bayesian Networks*, May 2015.
3. Mohamed Ahmed, *A Heuristic Approach to Utilizing Incentive/Disincentive Scheme in Risk Management of a Stochastic Activity Network*, May 2014.
4. Sebnem Sener, *A Time-Series Integration of Confidence Indices with Input-Output Model*, May 2013.
5. Sheng Yu, "Adaptive Convex Enveloping for Multivariate Convex Dynamic Programming", August 2012.
6. Leon Adams, *Uncertainty Analysis Applications of Generalized Diagonal Band Copulas with Two-Sided Power Generating Densities*, April 2011.
7. Adil Caner Sener, *Uncertainty Analysis of Geothermal Energy Economics*, June, 2007.
8. Amita Singh, *A Novel Asymmetric Distribution with Power Tails*, May, 2007.
9. Lauren Schiff-Fernandez, *Volunteer Management System Design and Analysis for Disaster Response and Recovery*, March 2007.
10. Paul Szwed *A Bayesian Model for Risk Assessment using Expert Judgments about Paired Scenario Comparisons*, August 2002.
11. Noraida Abdul Ghani, *The Strategic Location and Allocation of Emergency Medical Services Vehicles Under Uncertainty*, September 2002.

Graduated: 3 M.Sc. Students

1. Jason T. Brown, *Evaluation of a Social Science Simulation by Uncertainty Analysis and Comparison*, August 2010.
2. G. van de Wiel, *A Probabilistic Model for Oil Spill Volume for Tanker Collisions and Groundings*, August 2008, Master Thesis at Delft University of Technology
3. Marc Greenberg, *An Activity Network Simulation Approach for Estimating Production Schedule of a Convertible Containership*, April 1998.

Teaching

Beyond Beta: A short course for Doctoral Student on other bounded distributions and their application utilizing the two-sided framework for bounded distributions. La Sapienza, Department of Statistics, Rome, Italy.

APSC 3115: Engineering Analysis III (Undergraduate)

EMSE 3760/6760: Discrete Event Simulation (Undergraduate/Graduate)

EMSE 6115: Uncertainty Analysis for Engineers (Graduate)

EMSE 6020: Decision Making under Uncertainty (Graduate)

EMSE 6315: Management of Risk for Natural and Technological Hazards (Graduate)

EMSE 6450: Quantitative Methods in Cost/Investment Engineering (Graduate)

EMSE 4755/6755: Quality Control and Acceptance Sampling (Undergraduate/Graduate)

EMSE 6765: Data Analysis for Engineers and Scientists (Graduate)

EMSE 6770: Techniques for Risk Analysis & Risk Management: Guest Lectures on Copulas and Expert Judgement (Graduate)

Professional Activities

Membership	The International Honor Society Omega Rho (OMEGA RHO), INFORMS, ISBA.
Editorial Board	INFORMS Decision Analysis Journal, January 2011 – 2013, January 2019 - Present
Journal Referee	Ocean Engineering, Journal of Reliability and System Safety, Journal of the American Statistical Association, METRON, Operations Research, Journal of Applied Statistics, Journal Applied Stochastic Models in Business and Industry, Journal of Disaster Prevention and Management, Decision Analysis Journal, European Journal of Operations Research, Test, International Statistical Review, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, Statistical Methods and Applications, Journal of Multivariate Analysis, Metrika, Communication in Statistics, Journal of Statistical Planning and Inference, IEEE Transactions on Reliability, Risk Analysis, Natural Hazards Review, Journal of Homeland Security and Emergency Management.
Proposal Reviewer	NSF Proposal Review Panel "Hazard Mitigation and Response". Program Director: Miriam Heller.
Other	Deputy Technical Program Chair, American Society for Engineering Management 2000 National Conference, October 4 – 7, Washington D.C., 2000. Coordinated paper review process and final publication of the proceeding both in paper and electronically (CD) form. Convener, Science Engineering and Apprentice Program, 2001, 2002, 2003.