

# List of Publications

Matthias C. M. Troffaes

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- [1] Mohammad Rajabdorri, Matthias C. M. Troffaes, Behzad Kazemtabrizi, Miad Sarvarizadeh-Kouhpaye, Lukas Sigrist, and Enrique Lobato. Data-driven estimation of the amount of under frequency load shedding in small power systems. *Engineering Applications of Artificial Intelligence*, 139:109617, January 2025.
- [2] Nawapon Nakharutai, Matthias C. M. Troffaes, and Sébastien Destercke. Elicitation for decision problems under severe uncertainties. In Sébastien Destercke, Maria Vanina Martinez, and Giuseppe Sanfilippo, editors, *Scalable Uncertainty Management*, Lecture Notes in Computer Science, pages 312–324. Springer Nature Switzerland, November 2024.
- [3] Tathagata Basu and Matthias C. M. Troffaes. Robust Bayesian causal estimation for causal inference in medical diagnosis. *International Journal of Approximate Reasoning*, page 109330, November 2024. In press.
- [4] Isha Saxena, Behzad Kazemtabrizi, Matthias C. M. Troffaes, and Christopher J. Crabtree. Data-driven infrastructure planning for offshore windfarms. In *The Science of Making Torque from Wind (TORQUE 2024)*, volume 2767 of *Journal of Physics: Conference Series*, page O62002. IOP Publishing, June 2024.
- [5] Nawapon Nakharutai, Sébastien Destercke, and Matthias C. M. Troffaes. Regret-based budgeted decision rules under severe uncertainty. *Information Sciences*, 665:120361, April 2024.
- [6] Tathagata Basu, Matthias C. M. Troffaes, and Jochen Einbeck. A robust Bayesian approach for causal inference problems. In *Symbolic and Quantitative Approaches to Reasoning with Uncertainty: 17th European Conference*, pages 359–371, Berlin, Heidelberg, September 2023. Springer-Verlag.
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- [8] Matthias C. M. Troffaes. A constructive theory for conditional lower previsions only using rational valued probability mass functions with finite support, July 2023. Poster abstract for ISIPTA'23, Oviedo, Spain.
- [9] Matthias C. M. Troffaes, Behzad Kazemtabrizi, Andrew Smallbone, Henna Bains, Andrew Jenkins, and Paul McKeever. Using probability bounding to improve decision making for offshore wind planning in industry, July 2023. Poster abstract for ISIPTA'23, Oviedo, Spain.
- [10] Tathagata Basu, Matthias C. M. Troffaes, and Jochen Einbeck. A robust Bayesian analysis of variable selection under prior ignorance. *Sankhya A*, 85:1014–1057, February 2023.
- [11] Mohammad Rajabdorri, Behzad Kazemtabrizi, Matthias C. M. Troffaes, Lukas Sigrist, and Enrique Lobato. Inclusion of frequency nadir constraint in the unit commitment problem of small power systems using machine learning. *Sustainable Energy, Grids and Networks*, 36:101161, December 2023.
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- [13] Ivette Raices Cruz, Matthias C. M. Troffaes, Johan Lindström, and Ullrika Sahlin. A robust Bayesian bias-adjusted random effects model for consideration of uncertainty about bias terms in evidence synthesis. *Statistics in Medicine*, 41(17):3365–3379, July 2022.

- [14] Carlos J. Ferrandon-Cervantes, Behzad Kazemtabrizi, and Matthias C. M. Troffaes. Inclusion of frequency stability constraints in unit commitment using separable programming. *Electric Power Systems Research*, 203:107669, February 2022.
- [15] Ivette Raices Cruz, Matthias C. M. Troffaes, and Ullrika Sahlin. A suggestion for the quantification of precise and bounded probability to quantify epistemic uncertainty in scientific assessments. *Risk Analysis*, 42:239–253, February 2022.
- [16] Ivette Raices Cruz, Johan Lindström, Matthias C. M. Troffaes, and Ullrika Sahlin. Iterative importance sampling with Markov chain Monte Carlo sampling in robust Bayesian analysis. *Computational Statistics & Data Analysis*, 176:107558, December 2022.
- [17] Matthias C. M. Troffaes and Michael Goldstein. Foundations for temporal reasoning using lower previsions without a possibility space. In Thomas Augustin, Fabio Gagliardi Cozman, and Gregory Wheeler, editors, *Reflections on the Foundations of Probability and Statistics: Essays in Honor of Teddy Seidenfeld*, volume 54 of *Theory and Decision Library A: Rational Choice in Practical Philosophy and Philosophy of Science*, chapter 4, pages 69–96. Springer, August 2022.
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