Gray, A., Wimbush, A., de Angelis, M., Hristov, P. O., Calleja, D., Miralles-Dolz, E., & Rocchetta, R. (2022). From inference to design: A comprehensive framework for uncertainty quantification in engineering with limited information. *Mechanical Systems and Signal Processing*, *165*, 108210. doi:10.1016/j.ymssp.2021.108210

Ferson, S., & De Angelis, M. (2021). Computing with confidence. *International Journal of Approximate Reasoning*, *137*, 67-68. doi:10.1016/j.ijar.2021.07.001

De Angelis, M., Rocchetta, R., Gray, A., & Ferson, S. (2021). Constructing consonant beliefs from multivariate data with scenario theory. Virtually from Liverpool.

De Angelis, M., Rocchetta, R., Gray, A., & Ferson, S. (2021). *Constructing consonant beliefs from multivariate data with scenario theory*. Poster session presented at the meeting of The International Symposium on Imprecise Probabilities: Theories and Applications.

Gray, A., Hose, D., De Angelis, M., Hanss, M., & Ferson, S. (2021, July 6). Dependent Possibilistic Arithmetic using Copulas. In *International symposium on imprecise probability: theory and applications (ISPTA2021)*. Granada, Spain.

De Angelis, M., Rocchetta, R., Gray, A., & Ferson, S. (2021). Constructing Consonant Predictive Beliefs from Data with Scenario Theory. In *Proceedings of Machine Learning Research* Vol. 147 (pp. 362). Granada, Spain.

De Angelis, M. (2021). The interval (discrete) Fourier transform. Virtual Taormina, Italy..

De Angelis, M., Behrendt, M., Comerford, L., Zhang, Y., & Michael, B. (2021, May 17). Forward interval propagation through the discrete Fourier transform. In *9th International workshop on reliable engineering computing* (pp. 39-52). Taormina, Italy. Retrieved from http://ww2new.unime.it/REC2021/proceedings/REC2021_Proceedings.pdf

Gray, A., De Angelis, M., Ferson, S., & Patelli, E. (2021, May 17). What's Z−X, when Z = X+Y? Dependency tracking in interval arithmetic with bivariate sets. In *9th International Workshop on Reliable Engineering Computing (REC2021)*. Virtual (Taormina, Italy).

Gray, N., Calleja, D., Wimbush, A., Miralles-Dolz, E., Gray, A., De Angelis, M., . . . Ferson, S. (2021). Is no test better than a bad test: Impact of diagnostic uncertainty on the spread of COVID-19 (vol 15, e0240775, 2020). *PLOS ONE*, *16*(2). doi: 10.1371/journal.pone.0247129

Valdebenito, M., De Angelis, M., & Patelli, E. (2021). Line Sampling Simulation. In *Reliability-Based Analysis and Design of Structures and Infrastructure*. CRC Press.

Oparaji, B. U., Clearkin, L., Ferson, S., De Angelis, M., Ferrer-Fernandez, M., Calleja, D., . . . Derrer-Merk, E. (2020). Comment on: British Society for Rheumatology guideline on diagnosis and treatment of giant cell arteritis. *RHEUMATOLOGY*, *59*(12), E159. doi: 10.1093/rheumatology/keaa265

Lye, A., De Angelis, M., & Patelli, E. (2020). *Bayesian Regression over Sparse Fatigue Crack Growth Data for Nuclear Piping*. Poster session presented at the meeting of Modelling in Nuclear Science and Engineering Seminar 2020. Bangor University. Retrieved from https://www.researchgate.net/profile/Adolphus-Lye

Gray, N., Calleja, D., Wimbush, A., Miralles-Dolz, E., Gray, A., De Angelis, M., . . . Ferson, S. (2020). Is "No test is better than a bad test"? Impact of diagnostic uncertainty in mass testing on the spread of Covid-19. *PLoS One*. doi:10.1371/journal.pone.0240775

Gray, N., Calleja, D., Wimbush, A., Miralles-Dolz, E., Gray, A., De-Angelis, M., . . . Ferson, S. (n.d.). Is "No test is better than a bad test"? Impact of diagnostic uncertainty in mass testing on the spread of Covid-19. *MedRxiv*. doi:10.1101/2020.04.16.20067884

Sadeghi, J. (2020, June 2). *Uncertainty Modelling for Scarce and Imprecise Data in Engineering Applications*.

Sadeghi, J., de Angelis, M., & Patelli, E. (2020). Analytic Probabilistic Safety Analysis under Severe Uncertainty. *ASCE-ASME JOURNAL OF RISK AND UNCERTAINTY IN ENGINEERING SYSTEMS PART A-CIVIL ENGINEERING*, *6*(1). doi: 10.1061/AJRUA6.0001028

Sadeghi, J., de Angelis, M., & Patelli, E. (2020). Robust propagation of probability boxes by interval predictor models. In *STRUCTURAL SAFETY* Vol. 82. doi: 10.1016/j.strusafe.2019.101889

Estrada-Lugo, H. D., Santhosh, T. V., Angelis, M. D., & Patelli, E. (2020). Resilience Assessment of Safety-Critical Systems with Credal Networks. In *Proceedings of the 30th European Safety and Reliability Conference and 15th Probabilistic Safety Assessment and Management Conference*. Research Publishing Services. doi: 10.3850/978-981-14-8593-0_4192-cd

Estrada-Lugo, H. D., Santhosh, T. V., de Angelis, M., & Patelli, E. (2020). Resilience assessment of safety-critical systems with credal networks. In *30th European Safety and Reliability Conference, ESREL 2020 and 15th Probabilistic Safety Assessment and Management Conference, PSAM 2020* (pp. 1199-1206).

Gray, A., Wimbush, A., De Angelis, M., Hristov, P. O., Miralles-Dolz, E., Calleja, D., & Rocchetta, R. (2020). Bayesian Calibration and Probability Bounds Analysis Solution to the Nasa 2020 UQ Challenge on Optimization under Uncertainty. In *Proceedings of the 30th European Safety and Reliability Conference and 15th Probabilistic Safety Assessment and Management Conference*. Research Publishing Services. doi: 10.3850/978-981-14-8593-0_5520-cd

Gray, N., Angelis, M. D., Calleja, D., & Ferson, S. (2019). A Problem in the Bayesian Analysis of Data without Gold Standards. In *Proceedings of the 29th European Safety and Reliability Conference (ESREL)*. Research Publishing Services. doi:10.3850/978-981-11-2724-3_0458-cd

Estrada-Lugo, H. D., Tolo, S., de Angelis, M., & Patelli, E. (2019). Pseudo Credal Networks for Inference With Probability Intervals. *ASCE-ASME J Risk and Uncert in Engrg Sys Part B Mech Engrg*, *5*(4). doi:10.1115/1.4044239

Faes, M., Sadeghi, J., Broggi, M., de Angelis, M., Patelli, E., Beer, M., & Moens, D. (2019). On the Robust Estimation of Small Failure Probabilities for Strong Nonlinear Models. *ASCE-ASME J Risk and Uncert in Engrg Sys Part B Mech Engrg*, *5*(4). doi: 10.1115/1.4044044

Sadeghi, J., de Angelis, M., & Patelli, E. (2019). Efficient training of interval Neural Networks for imprecise training data. *NEURAL NETWORKS*, *118*, 338-351. doi: 10.1016/j.neunet.2019.07.005

Sadeghi, J. C., De Angelis, M., & Patelli, E. (n.d.). Robust propagation of probability boxes by Interval Predictor Models. *Structural Safety*. doi:10.1016/j.strusafe.2019.101889

De Angelis, M., Estrada Lugo, H. D., Patelli, E., & Ferson, S. (2019). *On the dimensionality of inference in credal nets with interval probabilities*. Poster session presented at the meeting of ISIPTA 2019. Ghent.

Estrada-Lugo, H. D., De Angelis, M., & Patelli, E. (2019). Probabilistic risk assessment of fire occurrence in residential buildings: Application to the Grenfell tower. In *13th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP 2019*.

Estrada-Lugo, H. D., De Angelis, M., & Patelli, E. (2019). Probabilistic risk assessment of fire occurrence in residential buildings: Application to the Grenfell tower. In *13th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP 2019*.

Estrada-Lugo, H. D., De Angelis, M., & Patelli, E. (2019). Probabilistic risk assessment of fire occurrence in residential buildings: Application to the Grenfell tower. In *13th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP 2019*.

Gray, N., De Angelis, M., & Ferson, S. (2019). COMPUTING WITH UNCERTAINTY: INTRODUCING PUFFIN THE AUTOMATIC UNCERTAINTY COMPILER. In *Proceedings of the 3rd International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2019)*. Institute of Structural Analysis and Antiseismic Research School of Civil Engineering National Technical University of Athens (NTUA) Greece. doi:10.7712/120219.6354.18702

De Angelis, M., Ferson, S., Patelli, E., & Kreinovich, V. (2019). BLACK-BOX PROPAGATIONOF FAILURE PROBABILITIES UNDER EPISTEMIC UNCERTAINTY. In *Proceedings of the 3rd International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2019)*. Institute of Structural Analysis and Antiseismic Research School of Civil Engineering National Technical University of Athens (NTUA) Greece. doi: 10.7712/120219.6373.18699

De Angelis, M., Ricciardi, V., & Dalmau, E. (2018). Uncertainty estimation of road-dust emissions via interval statistics. In *Journal of Physics: Conference Series* Vol. 1065. doi:10.1088/1742-6596/1065/21/212023

Sadeghi, J., de Angelis, M., & Patelli, E. (2018). Frequentist history matching with Interval Predictor Models. *APPLIED MATHEMATICAL MODELLING*, *61*, 29-48. doi: 10.1016/j.apm.2018.04.003

Comerford, L., Mannis, A., DeAngelis, M., Kougioumtzoglou, I. A., & Beer, M. (2018). Utilising database-driven interactive software to enhance independent home-study in a flipped classroom setting: going beyond visualising engineering concepts to ensuring formative assessment. *European Journal of Engineering Education*, *43*(4), 522-537. doi:10.1080/03043797.2017.1293617

Sadeghi, J., De Angelis, M., & Patelli, E. (2018, July 16). Efficient training of neural networks with interval uncertainty. In M. De Angelis (Ed.), *http://rec2018.uk/papers/proceedings/proceedings.pdf* (pp. 137-146). Liverpool.

Estrada-Lugo, H. D., Patelli, E., de Angelis, M., & Raj, D. D. (2018). Bayesian networks with imprecise datasets: Application to oscillating water column. In *SAFETY AND RELIABILITY - SAFE SOCIETIES IN A CHANGING WORLD* (pp. 2611-2618). Retrieved from http://gateway.webofknowledge.com/gateway/Gateway.cgi?GWVersion=2&SrcApp=PARTNER_AP

Patelli, E., & de Angelis, M. (2018). An efficient computational strategy for robust maintenance scheduling: Application to corroded pipelines. In *SAFETY AND RELIABILITY - SAFE SOCIETIES IN A CHANGING WORLD* (pp. 2201-2209). Retrieved from http://gateway.webofknowledge.com/gateway/Gateway.cgi?GWVersion=2&SrcApp=PARTNER_AP

Sadeghi, J. C., Patelli, E., De Angelis, M., & Prinja, N. K. (2018). EFFICIENT COMPUTATIONAL STRUCTURAL RELIABILITY ANALYSIS OF CONCRETE CONTAINMENTS. In *2nd International Conference on Nuclear Power Plants: Structures, Risk & Decommissioning*. Croydon, UK.

Sadeghi, J. C., Patelli, E., & De Angelis, M. (2018). ANALYTIC IMPRECISE-PROBABILISTIC STRUCTURAL RELIABILITY ANALYSIS. In *http://www.nineeng.com/bepu/images/Program%20Book%20and%20cover.pdf*. Lucca, Italy. Retrieved from https://www.researchgate.net/publication/326319518_ANALYTIC_IMPRECISE-PROBABILISTIC_STRUCTURAL_RELIABILITY_ANALYSIS

Altieri, D., Tubaldi, E., De Angelis, M., Patelli, E., & Dall'Asta, A. (2018). Reliability-based optimal design of nonlinear viscous dampers for the seismic protection of structural systems. *BULLETIN OF EARTHQUAKE ENGINEERING*, *16*(2), 963-982. doi: 10.1007/s10518-017-0233-4

Sadeghi, J., Fetz, T., Oberguggenberger, M., Patelli, E., & De Angelis, M. (2018). Probability Box Propagation: Benchmarking Challenge Problems. In *19th working conference of the IFIP Working Group 7.5 on Reliability and Optimization of Structural Systems*. doi:10.3929/ethz-b-000335938

Ferrero, R., Wu, C., De Angelis, M., George-Williams, H., Patelli, E., Carboni, A., . . . IEEE. (2017). Low-Cost Battery Monitoring by Converter-Based Electrochemical Impedance Spectroscopy. In *2017 IEEE INTERNATIONAL WORKSHOP ON APPLIED MEASUREMENTS FOR POWER SYSTEMS (AMPS)* (pp. 78-83). Retrieved from http://gateway.webofknowledge.com/gateway/Gateway.cgi?GWVersion=2&SrcApp=PARTNER_AP

Hernandez, J. E., Kacprzyk, J., Panetto, H., Fernandez, A., Liu, S., Ortiz, A., & De-Angelis, M. (2017). Challenges and solutions for enhancing agriculture value chain decision-making. A short review. In *IFIP Advances in Information and Communication Technology* Vol. 506 (pp. 761-774). Springer. doi:10.1007/978-3-319-65151-4_68

de Angelis, M., Patelli, E., & Beer, M. (2017). Forced Monte Carlo Simulation Strategy for the Design of Maintenance Plans with Multiple Inspections. *ASCE-ASME JOURNAL OF RISK AND UNCERTAINTY IN ENGINEERING SYSTEMS PART A-CIVIL ENGINEERING*, *3*(2). doi:10.1061/AJRUA6.0000868

de Angelis, M., Patelli, E., & Beer, M. (2015). Robust design of inspection schedules by means of probability boxes for structural systems prone to damage accumulation. In *European Safety and Reliability Conference* (pp. 2733-2741). CRC Press. doi: 10.1201/b19094-358

Patelli, E., & de Angelis, M. (2015). Line sampling approach for extreme case analysis in presence of aleatory and epistemic uncertainties. In *Unknown Conference* (pp. 2585-2593). CRC Press. doi:10.1201/b19094-339

De Angelis, M., Patelli, E., & Beer, M. (2015). Uncertainty management of safety-critical systems: A solution to the back-propagation problem. In *12th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP 2015*.

Patelli, E., Alvarez, D. A., Broggi, M., & de Angelis, M. (n.d.). Uncertainty management in multidisciplinary design of critical safety systems. *Journal of Aerospace Information Systems*, *12*(1), 140-169. doi:10.2514/1.I010273

de Angelis, M., Patelli, E., & Beer, M. (2015). Advanced Line Sampling for efficient robust reliability analysis. *STRUCTURAL SAFETY*, *52*, 170-182. doi: 10.1016/j.strusafe.2014.10.002

Beer, M., de Angelis, M., & Kreinovich, V. (2014). Towards Efficient Ways of Estimating Failure Probability of Mechanical Structures Under Interval Uncertainty. In *Vulnerability, Uncertainty, and Risk*. American Society of Civil Engineers. doi: 10.1061/9780784413609.033

Tubaldi, E., Dall'Asta, A., Broggi, M., Patelli, E., & De Angelis, M. (2014). Reliability-Based Design of Fluid Viscous Damper for Seismic Protection of Building Frames. American Society of Civil Engineers. doi:10.1061/9780784413609.177

de Angelis, M., Patelli, E., & Beer, M. (2014). Line Sampling for Assessing Structural Reliability with Imprecise Failure Probabilities. American Society of Civil Engineers. doi:10.1061/9780784413609.093

Patelli, E., Alvarez, D. A., Broggi, M., & de Angelis, M. (2014). An integrated and efficient numerical framework for uncertainty quantification: application to the NASA Langley multidisciplinary Uncertainty Quantification Challenge. In *16th AIAA Non-Deterministic Approaches Conference*. American Institute of Aeronautics and Astronautics. doi:10.2514/6.2014-1501

Gabriele, S., Valente, C., & De Angelis, M. (2013). Interval solution and robust validation of uncertain elastic beams. In *Safety, Reliability, Risk and Life-Cycle Performance of Structures and Infrastructures - Proceedings of the 11th International Conference on Structural Safety and Reliability, ICOSSAR 2013* (pp. 445-452).

De Angelis, M., Patelli, E., & Beer, M. (2013). An efficient strategy for computing interval expectations of risk. In *Safety, Reliability, Risk and Life-Cycle Performance of Structures and Infrastructures - Proceedings of the 11th International Conference on Structural Safety and Reliability, ICOSSAR 2013* (pp. 2225-2232).

Patelli, E., Valdebenito, M. A., & De Angelis, M. (2013). On Robust Maintenance Scheduling of Fatigue-prone Structural Systems Considering Imprecise Probability. In *2013 PROGNOSTICS AND HEALTH MANAGEMENT CONFERENCE (PHM)* Vol. 33 (pp. 1081-1086). doi:10.3303/CET1333181

Patelli, E. (2012). Dealing with scarce information on engineering systems. *N/A*, *N/A*, N/A.

de Angelis, M., Patelli, E., & Beer, M. (2012). Dealing with scarce information on engineering systems. In *6th EUROPEAN CONGRESS ON COMPUTATIONAL METHODS IN APPLIED SCIENCES AND ENGINEERING (ECCOMAS 2012)* (pp. -) .

Patelli, E., & De Angelis, M. (2012). An open computational framework for reliability based optimization. In *Civil-Comp Proceedings* Vol. 99.

De Angelis, M. (n.d.). *Efficient random set uncertainty quantification by means of advanced sampling techniques*. (PhD Thesis, University of Liverpool).