PROF. DR. GARETH W. PETERS

(CStat-RSS, Adv.DSP-RSS, CMath-FIMA, FIOR, FRSS, FIMA, YAS-RSE, SIRM, ISI-Elected Member, IEEE-Senior Fellow)

CONTACT INFORMATION

Prof. Dr. Gareth William Peters
(Research Professor)
University of California Santa Barbara,
California, USA

Janet and Ian Duncan Endowed Chair Professor of Actuarial Science

Chair Prof. of Statistics for Risk and Insurance
Department of Statistics and Applied Probability,

Director of Future AI Research for Actuarial Intelligence Institute (fairAI - Institute)

Email:garethpeters@ucsb.edu
Webpage: https://www.qrslab.com/

PUBLICATION SUMMARY

(Last Updated 11th November 2025)

Summary:	
Scholarly Research Books =	5
Scholarly Research Theses =	2
Scholarly Research Book Chapters =	12
Preprints Journal Papers (submitted in review) =	30
Journal Papers (peer reviewed) Appeared =	153
Conference Papers (peer reviewed) in Proceedings =	42
Technical Reports Industry =	9

Table 1: Summary of Publications: 2004+

SCHOLARLY BOOKS (PEER REVIEWED)

Note: The authored books were peer reviewed at both the proposal level and then again on a 50%+ portion of the content during the book development. Then an external copy editing review was performed twice, as well as an industry review (outside of academia). The edited books (all chapters) were blind peer reviewed as per usual journal academic standards.

1. Dick, J., Kuo, F.Y., Peters, G.W., and Sloan, I.H. editors., 2013. Monte Carlo and Quasi-Monte Carlo Methods 2012. Springer Proceedings in Mathematics Statistics, vol. 65. New York: Springer.
2. Cruz, M.G., Peters, G.W. and Shevchenko, P.V., 2015. Fundamental aspects of operational risk and insurance analytics: A handbook of operational risk. John Wiley Sons.
3. Peters, G.W. and Shevchenko, P.V., 2015. Advances in heavy tailed risk modelling: A handbook of operational risk. John Wiley Sons.
4. Peters, G.W., and Matsui, T. editors., 2015. Theoretical Aspects of Spatial-Temporal Modelling. Springer-Briefs in Statistics, Springer Tokyo.
5. Peters, G.W., and Matsui, T. editors., 2015. Modern Methodology and Applications in Spatial-Temporal Modelling. Springer-Briefs in Statistics, Springer Tokyo.

SCHOLARLY THESES (PEER REVIEWED)

1. Peters G.W. (2009) "Trans-dimensional Markov Chain Monte Carlo and Likelihood Free Inference." PhD. Dissertation (supervised by Dr. Sisson S.A., Dr. Fan Y. and Dr. Shevchenko P.), University of New South Wales, Sydney, Australia.
   - Available at SSRN: https://ssrn.com/abstract=3785580
2. Peters, G.W. Topics in Sequential Monte Carlo Samplers. Cambridge University Engineering Department Thesis, University of Cambridge, 2005.
   - Available at SSRN: https://ssrn.com/abstract=3785582

SCHOLARLY BOOK CHAPTERS (PEER REVIEWED)

Note: All book chapters were published by invitation and went through an academic blind peer review process.

1. Peters, G.W., Korostil, I.A. and Regan, D.G., 2013. HPV Modelling Goes Bayesian: Inference via Advanced Markov Chain Monte Carlo Methods. In Human Papilloma virus: Prevalence, Detection and Management, Nova Science Publishers Chapter 17, pp. 453-526.
2. Del Moral, P., Peters, G.W. and Vergé, C., 2013. An introduction to stochastic particle integration methods: with applications to risk and insurance. In Monte Carlo and Quasi-Monte Carlo Methods 2012 (pp. 39-81) Dick J., Kuo F., Peters G.W., Sloan I. (eds) Springer Proceedings in Mathematics Statistics, vol 65. Springer, Berlin, Heidelberg.
3. Septier, F. and Peters, G.W., 2015. An overview of recent advances in Monte-Carlo methods for Bayesian filtering in high-dimensional spaces. In: Peters G., Matsui T. (eds) Theoretical Aspects of Spatial-Temporal Modeling. SpringerBriefs in Statistics (pp. 31-61). Springer, Tokyo.
4. Azzaoui, N., Clavier, L., Guillin, A. and Peters, G.W., 2015. Spectral Measures of alpha-Stable Distributions: An Overview and Natural Applications in Wireless Communications. In: Peters G., Matsui T. (eds) Theoretical Aspects of Spatial-Temporal Modeling. SpringerBriefs in Statistics (pp. 6394). Springer, Tokyo.
5. Peters, G.W., Nevat, I. and Matsui, T., 2015. How to utilize sensor network data to efficiently perform model calibration and spatial field reconstruction. In: Peters G., Matsui T. (eds) Modern Methodology and Applications in Spatial-Temporal Modeling. SpringerBriefs in Statistics (pp. 25-62). Springer, Tokyo.
6. Ames, M., Peters, G.W., Bagnarosa, G. and Kosmidis, I., 2015. Upside and downside risk exposures of currency carry trades via tail dependence. In Innovations in quantitative risk management (pp. 163-181), Glau K., Scherer M., Zagst R. (eds). Springer Proceedings in Mathematics Statistics, vol 99. Springer, Cham.
7. Peters, G.W. and Panayi, E., 2016. Understanding modern banking ledgers through blockchain technologies: Future of transaction processing and smart contracts on the internet of money. In Banking beyond banks and money (pp. 239-278). Springer, Cham.
8. Peters, G.W. and Vishnia, G.R., 2018. Blockchain architectures for electronic exchange reporting requirements: EMIR, Dodd Frank, MiFID I/II, MiFIR, REMIT, Reg NMS and T2S. In Handbook of Blockchain, Digital Finance, and Inclusion, Volume 2 (pp. 271-329). Academic Press.
9. Peters, G.W., Shevchenko, P.V. and Cohen, R., 2018. Understanding cyber-risk and cyber-insurance. In FinTech: Growth and Deregulation (Chapter 12, pp. 1-31). Risk Books.
10. Peters, G.W., Shevchenko, P.V., Cohen, R. and Maurice, D., 2018. Statistical machine learning analysis of cyber risk data: event case studies. In FinTech: Growth and Deregulation (Chapter 3, 28 pages). Risk Books.
11. Peters, G.W., Panayi, E. and Septier, F., 2018. Sequential Monte Carlo-ABC methods for estimation of stochastic simulation models of the limit order book. In Sisson, S. A. , Y. Fan and M. A. Beaumont (eds.), Handbook of Approximate Bayesian Computation (pp. 437-480). Chapman and Hall/CRC.
12. Peters, G.W. and Loke S., 2023. Introduction to Fixed Income Markets and Bonds. In ..., H. Chapman and Hall/CRC.

SCHOLARLY PREPRINT PAPERS (IN SUBMISSION)

1. Akhtar F., Akhtar S., Peters G.W., Shevchenko P.V., Wu W., Tale of cyber risk tails: evidence from PRC and Advisen data
2. Bharadwaj S.R., Peters G.W., S-H Loke and M. Campi. Finite-Sample Inference for Maximum Tail-Dependence Trees in Multivariate Extremes: Kernel Two-Sample Tests and Tree-Functional Deviations.
3. Bharadwaj S.R., M. Campi, Peters G.W. and S-H Loke. Multi-Jump Detection in Graph Stochastic Processes
4. Wu J., Franks A. and Peters G.W. Estimating causal DRFs using spatiotemporal wildfire smoke and health data.
5. Berca J.D.M., Peters G.W. and Hu R. Two-Time-Scale Transfer Learning for Market-by-Order Micro-Return Forecasting.
6. Berca J.D.M., Peters G.W. and Hu R. On the Asymptotic Properties of the Conditional Maximum Likelihood Estimator for Time Series Regression Models with Conditional Heteroskedasticity.
7. Wang J., Dong, A., Chan, J. and Peters G.W. Bayesian State-Space Models for Retail Promotion Planning and Profit Optimization.
8. Dong, A., xxx and Peters G.W. Uncertainty-Aware Transformer Models for Fraud Detection, IEEE Transactions on Artificial Intelligence.
9. Campi M., Peters G.W. and Antonian E. Tensor Graph Regularized Bootstrap for High-Dimensional Bond Yield Reconstructions: Applications in Green Bond Markets.
10. XXXX, Dong A. and Peters G.W. Uncertainty Aware Transformer Models for Fraud Detection Transactions on Artificial Intelligence.
11. Huang Z.L., Chan J.S.K. and Peters G.W., Bayesian stochastic volatility modelling via the Multivariate Two Stage-Volatility-Return Model (MTS-VR)
12. Chalkiadakis I., Peters G.W. and Ramaciotti P., Efficient computation methods for the estimation of ideal points models for social and political sciences
13. Yan H. and Peters G.W., Generalised Linear Kernel Regression Model
14. Sojoudi M., Peters, G.W., Sojoudi M., Lazar M. and Tran V., Detecting Structural Changes in Green Bond Markets: A Panel-MIDAS Regression Approach with Cross-Entropy Method
15. Sojoudi M., Peters, G.W., Marupanthorn P., Lazar M. and Tran V., Structural Change Detection in Panel-MIDAS-ARDL Time Series Regression Models: An Application to Firm Values and ESG Scores
16. Sojoudi M., Peters, G.W., Lazar M. and Tran V., Detecting Structural Breaks in Oil Futures Using MIDAS-ARDL Models
17. Katz I., Peters G.W., and Campi M., Cross-Curve Interest Rate Stress Testing With Endogenous Curve Dynamics
18. Peters G.W., Loke S. and Ducan I., A Poisson-Tweedie Collective Reserving Model for Estimating Provider Payments in Value-based Contracts.
19. He P., Peters G.W., Kordzakhi N. and Shevchenko P.V., Multi-Factor Function-on-Function Regression of Bond Futures on WTI Commodity Futures Term Structure Dynamics.
20. Angles d'Auriac L., Chalkiadakis I, Peters G.W. and Frau-Meigs D., A text time-series model for candidates' rhetoric during the 2020 US presidential elections: are VPs coming out of the shadows?

21. Mohammad Hadi Sehatpour, Marta Campi, Christina S. Nikitopoulos, Gareth W. Peters and Kylie-Anne Richards, Attribute Associations of Municipal Green Bond Yield Spreads: A demand perspective

22. Mohammad Hadi Sehatpour, Marta Campi, Christina S. Nikitopoulos, Gareth W. Peters and Kylie-Anne Richards, A term structure framework for green bond spreads and portfolio strategies.

23. Andreas Koukorinis, Gareth W. Peters and Guido Germano, Memory, persistence, and the price process in interest rate futures contracts: A statistical investigation at the mesoscale using kernel two-sample testing

24. Gudmundarson R.L., Peters G.W., Christopoulos D. and Tzougas G., Systematic ESG Risk and Firm Valuation: Sector-Specific Insights Using Factor Models and Causal Inference

25. Gudmundarson R.L., Christopoulos D., Tzougas G. and Peters G.W., The Impact of ESG Ratings on Company Valuation. A sector and country specific case study.

26. Campi M., Peters G.W., Caldani S., Thai Van H. and Pia Bucci M. Eye Movement Vestibular Features for Clustering of Neurodevelopmental deficits with Machine Learning Approaches

27. Campi M., Peters G.W., Buhl M., Norvan P. and Thai-Van H. Hearing Loss Incidence Risk Profiles with State-Space Models

28. Sojoudi M., Peters G.W. and Bernard C., Denoising Multiple Time Series: Evidence of a Negative Greenium in German Twin Bonds

29. Sojoudi M., Peters G.W., Lazar E. and Tran V., Identifying Shocks in Oil Futures Returns Curves using AR-MIDAS Regression Models

30. P. He, N. Kordzakhia, G.W. Peters and P.V. Shevchenko PDSim: a Shiny App for Polynomial Diffusion Simulation Estimation.

31. Peters G.W., Zhu R., Tzougas G., Rabitti G., Ismaila Y. The Role and Significance of Green Bonds in Funding Transition to a Low Carbon Economy: A case study forecasting portfolios of green bond instrument returns

32. Brannelly H., Macrina A. and Peters G.W. Stochastic Measure Distortions Induced by Quantile Processes for Risk Quantification and Valuation

33. Brannelly H., Macrina A. and Peters G.W. Quantile Diffusions

SCHOLARLY JOURNAL PAPERS (PEER REVIEWED)

Note: All authored journal papers were subject to journal-specific academic peer review. Some were single blind, some were double blind, and others were triple blind. In each case, the majority of papers (except for 5 special cases) were subject to revisions from reviewers and extensions of the work in some manner either minor corrections or major corrections. I have not listed these outcomes per paper, as the final result of these processes was an accepted manuscript that appeared (or is to appear) in a peer-reviewed academic publication.

- First two special cases were the paper with the Bank of England (BOE white paper) which was peer reviewed independently by academics and industry experts including revisions prior to publication as a BOE report. The other analogous exception was the HK Monetary Authority report, also peer reviewed in similar fashion to the BOE report – but not an academic journal publication source, rather a government/industry peer reviewed publication white paper.
- Third special cases was the peer reviewed response to the Bank of International Settlements BIS on Basel III Simplified Measurement Approach and proposed changes to the Advanced Measurement Approach. It was published on the BIS website after review.
- Two special cases were the papers that were peer reviewed for the NeurIPS workshop. These papers were peer reviewed as part of the NeurIPS review process and then presented in workshops.
- Optus-Macquarie Cyber Risk Center paper is industry peer reviewed.

2026

1. Huang Z.L., Chan J.S.K. and Peters G.W., Combining Multiple Endogeneous Information Sources for Inproved Efficiency in Covariance and Correlation Matrix Estimation. Journal of Statistical Planning and Inference. 2026 (to appear).
2. Gudmundarson R.L., Tzougas G., Peters G.W., Chen Z. and Christopoulos D., Stochastic Dispersion Mixed Poisson Spatial-Temporal Regression Models for Climate-Related Claim Counts. Journal of Computational and Graphical Statistics (JCGS). 2026 (to appear)
3. Gudmundarson R., Peters G.W., Tzougas G. and Christopoulos D., Portfolio Analytics via Dynamic Graph Learning: Modelling and Testing. Journal of the Franklin Insitute. 2026 (to appear).
4. He P., Peters G.W., Kordzakhia N. and Shevchenko P.V. State-Space Dynamic Functional Regression for Multicurve Fixed Income Spread Analysis and Stress Testing. Annals of Actuarial Science, 2026 (to appear).
5. Malavasi M., Peters G.W., Trueck S., Shevchenko P.V., Jang J., Sofronov G., Cyber Risk Taxonomyies: Statistical Analysis of Operational Cybersecurity Risk Classifications. Insurance: Mathematics and Economics, 2026 (to appear).
6. Toczydlowska D., Peters G.W and Shevchenko P. Parsimonious Feature Extraction Methods: Extending Robust Probabilistic Projections with Generalized Skew-t. Journal of Franklin Institute, 2026 (to appear).
7. Campi, M., Peters, G. W., Morvan, P., Buhl, M., Thai-Van, H. Standardised hearing loss risk profiles with state-space models. Mathematics in Medical and Life Sciences, 2(1). 2026. https://doi.org/10.1080/29937574.2025.2535979

2025

8. He P., Kordzakhkia P., Peters G.W., Shevchenko P.V., A Shiny App for Polynomial Diffusion Model Simulation and Estimation in Commodity Futures, Journal of Open Source Software, 2025 (to appear)
9. Campi M., Staerman G. and Peters G.W. Signature Isolation Forest, AISTATS, 2025
10. Chalkiadakis I, Peters G.W., Bagnarosa G. and Gohin A., Structural changes and statistical causal relationships in agricultural commodities markets: the impact of public news sentiment and institutional announcements. Quantitative Finance, 2025 (to appear)
11. Antonian E., Peters G.W. and Chantler M. Iterative Methods for Signal Reconstruction on Product Graphs with Arbitrary Missing Data. PlosOne, 2025 (to appear).
12. Chalkiadakis I, Angles d'Auriac L., Peters G.W. and Frau-Meigs D., A text dataset of campaign speeches of the main tickets in the 2020 US presidential election. Nature Scientific Data, 2025 (to appear).
13. Goffard P-O., Piette P. and Peters G.W., Market-based Insurance Ratemaking: application to pet insurance, ASTIN Bulletin, 2025 (to appear).
14. Sojoudi M., Bernard C., Dupuy P. and Peters G.W., Green Spread of US Municipal Bonds. Annals of Operational Research, 2025 (to appear).
15. Yan H., Peters G.W., G. Bagnarosa and Chan J. (2025). Futures Open Interest and Speculative Pressure Dynamics via Bayesian Models of Long Memory Count Processes, Journal of Forecasting, 44(7), https://doi.org/10.1002/for.70001.
16. Marupanthorn P., Nikitopoulos C.S., Ofosu-hene E.D., Peters G.W. and Richards K. Fossil Fuel Divestment and Implications to Investors Risk and Returns, Commodity Insights Digest, 2025 (to appear)
17. Andreas Koukorinis, Gareth W. Peters and Guido Germano, Generative-discriminative machine learning models for high-frequency financial regime classification. Methodology and Computing in Applied Probability, 2025 (to appear).
18. Azzaoui N., Peters G.W., Guillin A. and Matsui T., Spectral characterization of the family of α-Stable processes that generalize Gaussian process models. Springer Nature Special Issue of Albert Shiryaev 90th Birthday, 2025 (to appear)

2024

19. K.A. Richards, W.T.M. Dunsmuir and G.W. Peters Score Test for Marks in Hawkes Processes. International Journal of Data Science and Analytics (to appear).
20. van Jaarsveldt C., Peters G.W., Ames M. and Chantler M. Long/Short Equity Risk Parity Portfolios via Implicit Factors in Regularized Covariance Regression, IEEE Access, 2024 (to appear)
21. Marupanthorn P., Nikitopoulos C.S., Ofosu-hene E.D., Peters G.W. and Richards K. Mechanisms to Incentivise Fossil Fuel Divestment and Implications to Investors Risk and Returns, Energy Economics, 2024 (to appear).
22. Marta Campi, Gareth W. Peters and Kylie-Anne Richards, Shades of Green: Unveiling the Impact of Municipal Green Bonds on the Environment, Franklin Open. 2024 (to appear)
23. Gudmundarson R. and Peters G.W. Assessing Portfolio Diversification via Two-Sample Graph Kernel Inference. A case study on the influence of ESG screening. PlosOne. 2024 (to appear)

24. van Jaarsveldt C., Peters G.W., Ames M. and Chantler M. Package CovRegpy: Portfolio Optimisation through Implicit Factor Extraction, Regularised Covariance Regression, Risk Premia Parity, and Long/Short Equity. Annals of Actuarial Science. 2024 (to appear)

25. Antonian E., Peters G.W. and Chantler M. Bayesian Reconstruction of Cartesian Product Graph Signals with General Patterns of Missing Data. Journal of the Franklin Institute. 2024 (to appear)

26. Marupanthorn P., Peters G.W., Ofosu-hene E.D., Nikitopoulos C.S. and Richards K. DivFolio: A Shiny Application for Portfolio Divestment in Green Finance Wealth Management. 2024. Annals of Actuarial Science. 2024 (to appear)

27. Gudmundarson R.L., Peters G.W. GTST: A Python package for graph two-sample testing, Journal of Open Research Software. 2024 (to appear).

28. He, P., Kordzakhia, N., Peters, G. W. and Shevchenko, P. V. 2024 Multi-factor polynomial diffusion models and inter-temporal futures dynamics, in 2021-2022 MATRIX Annals, Springer, pp. 363–382. DOI: https://doi.org/10.1007/978-3-031-47417-0_18.

2023

29. He, Peilun, Kordzakhia, Nino, Peters, Gareth W., Shevchenko, Pavel Multi-Factor Polynomial Diffusion Models for Inter-Temporal Futures Dynamics in Energy Markets, Matrix Annals, Editors: David R. Wood Jan de Gier Cheryl E. Praeger. 2021-2022. (to appear)

30. Qikun X., Neufeld A., Peters G.W, Nevat I. and Datta A. A Bonus-Malus Framework for Cyber Risk Insurance and Optimal Cybersecurity Provisioning. 2023. European Actuarial Journal (to appear)

31. van Jaarsveldt C., Peters G.W., Ames M. and Chantler M. Tutorial on Empirical Mode Decomposition: Basis Decomposition and Frequency Adaptive Graduation in Non-Stationary Time Series. IEEE Access (to appear)

32. Murakami D., Peters G.W., Septier F. and Matsui T. Spatial-Temporal Generalised Hyperbolic Models with Applications in Heatwave Prediction. 2023. Journal of Spatial Statistics (to appear)

33. Romeo Tayewo, François Septier, Ido Nevat and Gareth W. Peters, Prediction of CO2 emissions in the United States via Graph Regression Model. 2023. Entropy (to appear)

34. Campi M, Peters GW, Toczydlowska D. Ataxic speech disorders and Parkinson's disease diagnostics via stochastic embedding of empirical mode decomposition. PLoS One. 2023 Apr 26;18(4):e0284667. doi: 10.1371/journal.pone.0284667. PMID: 37099544; PMCID: PMC10132693. https://doi.org/10.1371/journal.pone.0284667

    - SSRN preprint https://ssrn.com/abstract=4173535

35. Van Jaarsveldt, C., Ames, M., Peters, G., Chantler, M. (2023). Package AdvEMDpy: Algorithmic variations of empirical mode decomposition in Python. Annals of Actuarial Science, 1-37. doi:10.1017/S1748499523000088
https://tinyurl.com/rfcsd4w2

    - SSRN preprint https://ssrn.com/abstract=3947132

36. Antonian et al., (2023). PyKronecker: A Python Library for the Efficient Manipulation of Kronecker Products and Related Structures. Journal of Open Source Software, 8(81), 4900, https://doi.org/10.21105/joss.04900

37. Ames M., Bagnarossa G., Gao S., Matsui T. and Peters G.W. (2023) A Harvested Acreage Weighted Spatio-Temporal Model for Country Crop Yields (to appear North American Actuarial Journal NAAJ)

    - SSRN preprint https://ssrn.com/abstract=3447047

38. Peters GW, Malavasi M, Sofronov G, Shevchenko PV, Trück S, Jang J. Cyber loss model risk translates to premium mispricing and risk sensitivity. Geneva Pap Risk Insur Issues Pract. 2023;48(2):372-433. doi: 10.1057/s41288-023-00285-x. Epub 2023 Mar 18. PMID: 37207021; PMCID: PMC10024527.
    https://doi.org/10.1057/s41288-023-00285-x

    - SSRN preprint https://ssrn.com/abstract=4009941

39. Peters, G., Chudtong, M., De Gaetano, A. (2023). Analysis of option-like fund performance fees in asset management via Monte Carlo actuarial distortion pricing. Annals of Actuarial Science, 1-43. doi:10.1017/S1748499522000203
    https://doi.org/10.1017/S1748499522000203

    - SSRN preprint https://ssrn.com/abstract=3946347

40. Chalkiadakis I., Peters G.W. and Ames M. (2023). Hybrid ARDL-MIDAS-Transformer Time-Series Regressions for Multi-Topic Crypto Market Sentiment Driven by Price and Technology Factors. Digital Finance (to appear)

    - SSRN preprint https://ssrn.com/abstract=3908066

41. Shevchenko PV, Jang J, Malavasi M, Peters GW, Sofronov G, Trück S. The nature of losses from cyber-related events: risk categories and business sectors. Journal of Cybersecurity. 2023 Jan 1;9(1):tyac016. https://doi.org/10.1093/cybsec/tyac016

    - SSRN preprint https://arxiv.org/pdf/2202.10189

2022

42. Malavasi M, Peters GW, Shevchenko PV, Trück S, Jang J, Sofronov G. Cyber risk frequency, severity and insurance viability. Insurance: Mathematics and Economics. 2022 Sep 1;106:90-114.
    https://doi.org/10.1016/j.insmatheco.2022.05.003

    - SSRN preprint https://ssrn.com/abstract=3940329

43. Peters GW, Yan H, Chan J. Model Risk in Mortality-linked Contingent Claims Pricing. Journal of Risk Model Validation. 2022 Aug 2;16(3).
    http://doi.org/10.21314/JRMV.2022.022

    - SSRN preprint https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4262766

44. Chen WY, Peters GW, Gerlach RH, Sisson SA. Dynamic quantile function models. Quantitative Finance. 2022 Sep 2;22(9):1665-91.
    https://doi.org/10.1080/14697688.2022.2053193

    - SSRN preprint https://ssrn.com/abstract=2999451

45. Zheng C, Egan M, Clavier L, Peters GW, Gorce JM. On the interference arising from random spatial fields of interferers utilizing multiple subcarriers. EURASIP Journal on Wireless Communications and Networking. 2022 Dec;2022(1):1-29. https://doi.org/10.1186/s13638-022-02110-w

46. Chalkiadakis I, Zaremba A, Peters GW, Chantler MJ. On-chain analytics for sentiment-driven statistical causality in cryptocurrencies. Blockchain: Research and Applications. 2022 Jun 1;3(2):100063.
https://doi.org/10.1016/j.bcra.2022.100063

    - SSRN preprint https://ssrn.com/abstract=3742063

47. Zaremba AB, Peters GW. Statistical Causality for Multivariate Nonlinear Time Series via Gaussian Process Models. Methodology and Computing in Applied Probability. 2022 Mar 30:1-46.
https://doi.org/10.1007/s11009-022-09928-3

    - SSRN preprint https://ssrn.com/abstract=3609497

2021

48. Chalkiadakis I, Yan H, Peters GW, Shevchenko PV. Infection rate models for COVID-19: Model risk and public health news sentiment exposure adjustments. Plos one. 2021 Jun 28;16(6):e0253381.
https://doi.org/10.1371/journal.pone.0253381

    - SSRN preprint https://ssrn.com/abstract=3813417

49. Clinet S, Dunsmuir WT, Peters GW, Richards KA. Asymptotic distribution of the score test for detecting marks in hawkes processes. Statistical Inference for Stochastic Processes. 2021 Oct;24(3):635-68.
https://doi.org/10.1007/s11203-021-09245-5

    - SSRN preprint https://ssrn.com/abstract=3380754

50. B. Chakraborty, D. M. Divakaran, I. Nevat, G. W. Peters and M. Gurusamy, "Cost-Aware Feature Selection for IoT Device Classification," in IEEE Internet of Things Journal, vol. 8, no. 14, pp. 11052-11064, 15 July15, 2021, doi: 10.1109/JIOT.2021.3051480.
https://doi.org/10.1109/JIOT.2021.3051480

51. Clavier L, Peters GW, Septier F, Nevat I. Impulsive noise modeling and robust receiver design. EURASIP Journal on Wireless Communications and Networking. 2021 Dec;2021(1):1-30.
https://doi.org/10.1186/s13638-020-01868-1

52. P. Shevchenko, J. Jang, M. Malavasi, G.W. Peters, G. Sofronov S. Truck 2021. Quantification of Cyber Risk - Risk Categories and Business Sectors. Optus Macquarie University Cyber Security Hub. Telecommunications Industry Optus White Paper.

53. Tipakornrojanakit K., Chudtong M., Peters G.W. and Satiracoo P. 2021. Covariance Forecasting Methods For Dynamic Asset Allocation. International Journal of Data Science and Big Data Analytics. ISSN: 2710-2599, IJDSBDA11012021MTN009 https://www.svedbergopen.com/

    - SSRN preprint https://ssrn.com/abstract=3722136

54. Jiang Y, Macrina A, Peters GW. Multiple barrier-crossings of an Ornstein-Uhlenbeck diffusion in consecutive periods. Stochastic Analysis and Applications. 2021 Jul 4;39(4):569-609.
https://doi.org/10.1080/07362994.2020.1818581

    - SSRN preprint https://ssrn.com/abstract=3334142

55. Murakami D, Peters GW, Matsui T, Yamagata Y. Spatio-Temporal Analysis of Urban Heatwaves Using Tukey g-and-h Random Field Models. IEEE Access. 2020 Jul 31;9:79869-88.
https://doi.org/10.1109/ACCESS.2020.3013255

    - SSRN preprint https://ssrn.com/abstract=3575789

56. Yan H, Peters GW, Chan J. Mortality models incorporating long memory for life table estimation: a comprehensive analysis. Annals of Actuarial Science. 2021 Nov;15(3):567-604.
https://doi.org/10.1017/S1748499521000014

    - SSRN preprint https://ssrn.com/abstract=3149914

57. Campi M, Peters GW, Azzaoui N, Matsui T. Machine learning mitigants for speech based cyber risk. IEEE Access. 2021 Oct 1;9:136831-60.
https://doi.org/10.1109/ACCESS.2021.3117080

    - SSRN preprint https://ssrn.com/abstract=3643826

58. Peters, Gareth W., Ido Nevat, Sai Ganesh Nagarajan, and Tomoko Matsui. 2021. "Spatial Warped Gaussian Processes: Estimation and Efficient Field Reconstruction" Entropy 23, no. 10: 1323.
https://doi.org/10.3390/e23101323

    - SSRN preprint https://ssrn.com/abstract=3159687

59. Fabio S. Dias, Gareth W. Peters, Option pricing with polynomial chaos expansion stochastic bridge interpolators and signed path dependence, Applied Mathematics and Computation, Volume 411, 2021, 126484, ISSN 0096-3003.
https://doi.org/10.1016/j.amc.2021.126484

    - SSRN preprint https://ssrn.com/abstract=3588871

60. Jimeno A. Fonseca, Ido Nevat, Gareth W. Peters, Quantifying the uncertain effects of climate change on building energy consumption across the United States, Applied Energy, Volume 277, 2020, 115556, ISSN 0306-2619.
https://doi.org/10.1016/j.apenergy.2020.115556

    - SSRN preprint https://ssrn.com/abstract=3656280

2020

61. Q. Xiang, I. Nevat and G. W. Peters, "Bayesian Spatial Field Reconstruction With Unknown Distortions in Sensor Networks," in IEEE Transactions on Signal Processing, vol. 68, pp. 4336-4351, 2020, doi: 10.1109/TSP.2020.3011023.
https://doi.org/10.1109/TSP.2020.3011023

    - SSRN preprint https://ssrn.com/abstract=3656297

62. Maciej Marowka, Gareth W. Peters, Nikolas Kantas, Guillaume Bagnarosa, Factor-Augmented Bayesian Cointegration Models: A Case-Study on The Soybean Crush Spread, Journal of the Royal Statistical Society Series C: Applied Statistics, Volume 69, Issue 2, April 2020, Pages 483–500
https://doi.org/10.1111/rssc.12395

    - SSRN preprint https://ssrn.com/abstract=2960638

63. Yan, H., Peters, G., Chan, J. (2020). MULTIVARIATE LONG-MEMORY COHORT MORTALITY MODELS. ASTIN Bulletin: The Journal of the IAA, 50(1), 223-263. doi:10.1017/asb.2019.35
https://doi.org/10.1017/asb.2019.35

    - SSRN preprint https://ssrn.com/abstract=3166884

64. Koh JY, Peters GW, Nevat I, Leong D. Privacy considerations in participatory data collection via spatial Stackelberg incentive mechanisms. Methodology and Computing in Applied Proba-

bility. 2021 Sep;23:1097-128.
https://doi.org/10.1007/s11009-020-09798-7

- SSRN preprint https://ssrn.com/abstract=3158616

65. Ames M, Bagnarosa G, Matsui T, Peters GW, Shevchenko PV. Which risk factors drive oil futures price curves?. Energy Economics. 2020 Mar 1;87:104676.
https://doi.org/10.1016/j.eneco.2020.104676

- SSRN preprint https://ssrn.com/abstract=2840730

66. Jing Yang Koh, Gareth W. Peters, Ido Nevat, Derek Leong, Probabilistic routing in wireless networks with privacy guarantees, Computer Communications, Volume 151, 2020, Pages 228-237, ISSN 0140-3664,
https://doi.org/10.1016/j.comcom.2019.12.045

67. Vishnia GR, Peters GW. Auditchain: A trading audit platform over blockchain. Frontiers in Blockchain. 2020 Feb 26;3:9.
https://doi.org/10.3389/fbloc.2020.00009

- SSRN preprint https://ssrn.com/abstract=3391634

2019

68. Dias FS, Peters GW. A non-parametric test and predictive model for signed path dependence. Computational Economics. 2020 Aug;56(2):461-98.
https://doi.org/10.1007/s10614-019-09934-7

69. Dalessandro A, Peters GW. Efficient and Accurate Evaluation Methods for Concordance Measures via Functional Tensor Characterizations of Copulas. Methodology and Computing in Applied Probability. 2020 Sep;22:1089-124.
https://doi.org/10.1007/s11009-019-09752-2

- SSRN preprint https://ssrn.com/abstract=2846670

70. Fung MC, Peters GW, Shevchenko PV. Cohort effects in mortality modelling: a Bayesian state-space approach. Annals of Actuarial Science. 2019 Mar;13(1):109-44.
https://doi.org/10.1017/S1748499518000131

- SSRN preprint https://ssrn.com/abstract=2907868

71. Ming D, Huang C, Peters GW, Galasso C. An Advanced Estimation Algorithm for Ground-Motion Models with Spatial CorrelationAn Advanced Estimation Algorithm for Ground-Motion Models with Spatial Correlation. Bulletin of the Seismological Society of America. 2019 Apr 1;109(2):541-66.
https://doi.org/10.1785/0120180215

72. Peters GW. General quantile time series regressions for applications in population demographics. Risks. 2018 Sep 13;6(3):97.
https://doi.org/10.3390/risks6030097

- SSRN preprint https://ssrn.com/abstract=3056728

2018

73. Georgescu DI, Higham NJ, Peters GW. Explicit solutions to correlation matrix completion problems, with an application to risk management and insurance. Royal Society open science.

2018 Mar 14;5(3):172348.
http://dx.doi.org/10.1098/rsos.172348

- SSRN preprint https://ssrn.com/abstract=3054171

74. P. Zhang, I. Nevat, G. W. Peters, F. Septier and M. A. Osborne, "Spatial Field Reconstruction and Sensor Selection in Heterogeneous Sensor Networks With Stochastic Energy Harvesting," in IEEE Transactions on Signal Processing, vol. 66, no. 9, pp. 2245-2257, 1 May1, 2018, doi: 10.1109/TSP.2018.2802452.
https://doi.org/10.1109/TSP.2018.2802452

75. Ames M, Bagnarosa G, Peters GW, Shevchenko PV. Understanding the interplay between covariance forecasting factor models and risk-based portfolio allocations in currency carry trades. Journal of Forecasting. 2018 Dec;37(8):805-31.
https://doi.org/10.1002/for.2505

- SSRN preprint https://ssrn.com/abstract=2699020

76. Peters, G.W., Clark, G., Thirlwell, J. and Kulwal, M., 2018. Global Perspectives on Operational Risk Management and Practice: A Survey by the Institute of Operational Risk (IOR) and the Center for Financial Professionals (CeFPro). Journal of Operational Risk, 13(4), pp. 47-88.
http://doi.org/10.21314/JOP.2018.215

- SSRN preprint https://ssrn.com/abstract=3296279

77. Dalessandro A, Peters GW. Tensor approximation of generalized correlated diffusions and functional copula operators. Methodology and Computing in Applied Probability. 2018 Mar;20:237-71.DOI10.1007/s11009-017-9545-8
https://link.springer.com/content/pdf/10.1007/s11009-017-9545-8.pdf

- SSRN preprint https://ssrn.com/abstract=2569134

78. Panayi E, Peters GW, Danielsson J, Zigrand JP. Designating market maker behaviour in limit order book markets. Econometrics and Statistics. 2018 Jan 1;5:20-44.
https://doi.org/10.1016/j.ecosta.2016.10.008

- SSRN preprint https://ssrn.com/abstract=2646649

2017

79. Yan S, Peters GW, Nevat I, Malaney R. Location verification systems based on received signal strength with unknown transmit power. IEEE Communications Letters. 2017 Dec 25;22(3):650-3. Digital Object Identifier 10.1109/LCOMM.2017.2787129
https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8239790

80. Targino RS, Peters GW, Sofronov G, Shevchenko PV. Optimal exercise strategies for operational risk insurance via multiple stopping times. Methodology and Computing in Applied Probability. 2017 Jun;19:487-518. DOI10.1007/s11009-016-9493-8
/https://link.springer.com/content/pdf/10.1007/s11009-016-9493-8.pdf

81. Egan M, Peters GW, Nevat I, Shirvanimoghaddam M, Collings IB. A ruin theoretic design approach for wireless cellular network sharing with facilities. Transactions on Emerging Telecommunications Technologies. 2017 Jul;28(7):e3141.
https://doi.org/10.1002/ett.3141

82. Zhang, P., Nevat, I., Peters, G.W., Fruehwirt, W., Huang, Y., Anders, I. and Osborne, M., 2017. Sensor Selection and Random Field Reconstruction for Robust and Cost-effective Heterogeneous

Weather Sensor Networks for the Developing World. (peer reviewed Neural Information Processing Workshop.) arXiv preprint arXiv:1711.04308.
https://doi.org/10.48550/arXiv.1711.04308

83. Fruehwirt, W., Gerstgrasser, M., Zhang, P., Weydemann, L., Waser, M., Schmidt, R., Benke, T., DalBianco, P., Ransmayr, G., Grossegger, D., Garn, H., Peters G.W., Roberts S. and Dorffner G. 2017. Riemannian tangent space mapping and elastic net regularization for cost-effective EEG markers of brain atrophy in Alzheimer's disease. (peer reviewed Neural Information Processing Workshop.) arXiv preprint arXiv:1711.08359.
https://doi.org/10.48550/arXiv.1711.08359

84. Peters GW, Targino RS, Wüthrich MV. Bayesian modelling, Monte Carlo sampling and capital allocation of insurance risks. Risks. 2017 Sep 22;5(4):53.
https://doi.org/10.3390/risks5040053

- SSRN preprint https://ssrn.com/abstract=2961888

85. Marowka M, Peters GW, Kantas N, Bagnarosa G. Some recent developments in Markov Chain Monte Carlo for cointegrated time series. ESAIM: Proceedings and Surveys. 2017;59:76-103.
https://doi.org/10.1051/proc/201759076

- SSRN preprint https://ssrn.com/abstract=3011343

86. Toczydlowska D, Peters GW, Fung MC, Shevchenko PV. Stochastic period and cohort effect state-space mortality models incorporating demographic factors via probabilistic robust principal components. Risks. 2017 Jul 27;5(3):42.
https://doi.org/10.3390/risks5030042

- SSRN preprint https://ssrn.com/abstract=2977306

87. Panayi E, Peters GW, Kyriakides G. Statistical modelling for precision agriculture: A case study in optimal environmental schedules for Agaricus Bisporus production via variable domain functional regression. PLoS One. 2017 Sep 29;12(9):e0181921.
https://doi.org/10.1371/journal.pone.0280374

- SSRN preprint https://ssrn.com/abstract=2977306

88. Nevat I, Zhang P, Frenkel G, Peters GW. Parameter estimation in sensor networks under probabilistic censoring. IEEE Transactions on Signal Processing. 2017 May 19;65(15):4047-58.
https://doi.org/10.1109/TSP.2017.2703686

89. Fung MC, Peters GW, Shevchenko PV. A unified approach to mortality modelling using state-space framework: characterisation, identification, estimation and forecasting. Annals of Actuarial Science. 2017 Sep;11(2):343-89.
https://doi.org/10.1017/S1748499517000069

- SSRN preprint https://ssrn.com/abstract=2786559

90. Ames M, Bagnarosa G, Peters GW. Violations of uncovered interest rate parity and international exchange rate dependences. Journal of International Money and Finance. 2017 May 1;73:162-87.
https://doi.org/10.1016/j.jimonfin.2017.01.002

- SSRN preprint https://ssrn.com/abstract=2638163

91. De Freitas ML, Egan M, Clavier L, Goupil A, Peters GW, Azzaoui N. Capacity Bounds for Additive Symmetric α-Stable Noise Channels. IEEE Transactions on Information Theory. 2017 Mar 2;63(8):5115-23.
https://doi.org/10.1109/TIT.2017.2676104

92. Nevat I, Zhang P, Frenkel G, Peters GW. Parameter estimation in sensor networks under probabilistic censoring. IEEE Transactions on Signal Processing. 2017 May 19;65(15):4047-58. https://doi.org/10.1109/TSP.2017.2703686

93. Koh JY, Leong D, Peters GW, Nevat I, Wong WC. Optimal privacy-preserving probabilistic routing for wireless networks. IEEE Transactions on Information Forensics and Security. 2017 Apr 26;12(9):2105-14. https://doi.org/10.1109/TIFS.2017.2698424

94. Karimalis, E., Kosmidis, I. and Peters, G.W., 2017. Multi yield curve stress-testing framework incorporating temporal and cross tenor structural dependencies. Bank of England Working Paper Staff Working Paper No. 655.

    - SSRN preprint https://ssrn.com/abstract=2949763

2016

95. Peters, G.W. and Vishnia, G.R., 2016. Overview of Emerging Blockchain Architectures and Platforms for Transparency and Pre and Post Trade Reporting from Electronic Exchanges. White Paper, ASTRI and Hong Kong Monetary Authority.

96. Peters, G.W. and Vishnia, G., 2016. Overview of emerging Blockchain architectures and platforms for electronic trading exchanges. Journal of Financial Transformation. Capco.com

    - SSRN preprint https://ssrn.com/abstract=2867344

97. Peters GW, Chen WY, Gerlach RH. Estimating quantile families of loss distributions for non-life insurance modelling via L-moments. Risks. 2016 May 20;4(2):14. https://doi.org/10.3390/risks4020014

    - SSRN preprint https://ssrn.com/abstract=2739417

98. Peters, G.W., Shevchenko, P.V., Hassani, B. and Chapelle, A., 2016. Should the advanced measurement approach be replaced with the standardized measurement approach for operational risk?. Journal of Operational Risk, 11(3), pp. 1-49. http://doi.org/10.21314/JOP.2016.177

    - SSRN preprint https://ssrn.com/abstract=2788920

99. Peters, G.W., Shevchenko, P.V., Hassani, B. and Chapelle, A., 2016. Standardized measurement approach for operational risk: Pros and cons. Response to Basel Committee BIS 2016 consultative call for SMA proposal. June. Basel Committee Website Publication.

    - SSRN preprint https://ssrn.com/abstract=2789006

100. Chapelle A, Hassani B, Peters G.W., Sekeris E and Shevchenko P. 2016. Discarding AMA could become a source of op risk. Risk Magazine. https://www.risk.net/risk-management/operational-risk/2451089/discarding-the-ama-could-become-a-source-of-op-risk

101. Peters GW, Targino RS, Wuthrich MV. Full bayesian analysis of claims reserving uncertainty. Insurance: Mathematics and Economics. 2017 Mar 1;73:41-53. https://doi.org/10.1016/j.insmatheco.2016.12.007

    - SSRN preprint https://ssrn.com/abstract=2783223

102. Murakami D, Peters GW, Yamagata Y, Matsui T. Participatory sensing data tweets for micro-urban real-time resiliency monitoring and risk management. Ieee Access. 2016 Jan 12;4:347-72. Digital Object Identifier 10.1109/ACCESS.2016.2516918 https://doi.org/10.1109/ACCESS.2016.2516918

103. Zhang P, Nevat I, Peters GW, Clavier L. Event detection in sensor networks with non-linear amplifiers via mixture series expansion. IEEE Sensors Journal. 2016 Jul 15;16(18):6939-46. https://doi.org/10.1109/JSEN.2016.2592103

104. Nevat I, Peters GW, Avnit K, Septier F, Clavier L. Location of things: Geospatial tagging for IoT using time-of-arrival. IEEE transactions on Signal and Information Processing over Networks. 2016 Feb 18;2(2):174-85. DOI: 10.1109/TSIPN.2016.2531422 https://doi.org/10.1109/TSIPN.2016.2531422

105. Yan S, Nevat I, Peters GW, Malaney R. Location verification systems under spatially correlated shadowing. IEEE Transactions on Wireless Communications. 2016 Feb 26;15(6):4132-44. https://ieeexplore.ieee.org/iel7/7693/7485904/07420743.pdf

106. Peters GW, Chapelle A, Panayi E. Opening discussion on banking sector risk exposures and vulnerabilities from virtual currencies: An operational risk perspective. Journal of Banking Regulation. 2016 Nov;17:239-72.

    - SSRN preprint https://ssrn.com/abstract=2491991

2015

107. Nguyen TL, Septier F, Rajaona H, Peters GW, Nevat I, Delignon Y. A Bayesian perspective on multiple source localization in wireless sensor networks. IEEE Transactions on Signal Processing. 2015 Dec 4;64(7):1684-99. https://doi.org/10.1109/TSP.2015.2505689

108. Richards KA, Peters GW, Dunsmuir W. Heavy-tailed features and dependence in limit order book volume profiles in futures markets. International Journal of Financial Engineering. 2015 Sep 23;2(03):1550033. https://doi.org/10.1142/S2424786315500334

    - SSRN preprint https://ssrn.com/abstract=2268283

109. Peters, G.W., Panayi, E. and Chapelle, A., 2015. Trends in cryptocurrencies and blockchain technologies: A monetary theory and regulation perspective. Journal of Financial Perspectives, 3(3).

    - SSRN preprint https://ssrn.com/abstract=3084011

110. Dong AX, Chan JS, Peters GW. Risk margin quantile function via parametric and non-parametric bayesian approaches. ASTIN Bulletin: The Journal of the IAA. 2015 Sep;45(3):503-50.DOI:10.1017/asb.201 https://doi.org/10.1017/asb.2015.8

111. Panayi, E. and Peters, G.W., 2015. Stochastic simulation framework for the limit order book using liquidity-motivated agents. International Journal of Financial Engineering, 2(02), p.1550013. https://doi.org/10.1142/S2424786315500139

    - SSRN preprint https://ssrn.com/abstract=2551410

112. Targino RS, Peters GW, Shevchenko PV. Sequential Monte Carlo samplers for capital allocation under copula-dependent risk models. Insurance: Mathematics and Economics. 2015 Mar 1;61:206-26. https://doi.org/10.1016/j.insmatheco.2015.01.007

    - SSRN preprint https://ssrn.com/abstract=2505539

113. Zhang P, Nevat I, Peters GW, Xiao G, Tan HP. Event detection in wireless sensor networks in random spatial sensors deployments. IEEE Transactions on Signal Processing. 2015 Jul

1;63(22):6122-35.
https://doi.org/10.1109/TSP.2015.2452218

114. Yan S, Malaney R, Nevat I, Peters GW. Location verification systems for VANETs in Rician fading channels. IEEE Transactions on Vehicular Technology. 2015 Jul 6;65(7):5652-64. doi: 10.1109/TVT.2015.2453160
https://ieeexplore.ieee.org/iel7/25/7513343/07150554.pdf

115. Nevat I, Peters GW, Septier F, Matsui T. Estimation of spatially correlated random fields in heterogeneous wireless sensor networks. IEEE Transactions on Signal Processing. 2015 Mar 13;63(10):2597-609. https://doi.org/10.1109/TSP.2015.2412917

116. Septier F, Peters GW. Langevin and Hamiltonian based sequential MCMC for efficient Bayesian filtering in high-dimensional spaces. IEEE Journal of selected topics in signal processing. 2015 Nov 2;10(2):312-27.doi:10.1109/JSTSP.2015.2497211
https://ieeexplore.ieee.org/iel7/4200690/7406776/07314906.pdf

- SSRN preprint https://ssrn.com/abstract=2980641

117. Nguyen TL, Septier F, Peters GW, Delignon Y. Efficient sequential Monte-Carlo samplers for Bayesian inference. IEEE Transactions on Signal Processing. 2015 Nov 30;64(5):1305-19. DOI: 10.1109/TSP.2015.2504342
https://doi.org/10.1109/TSP.2015.2504342

2014

118. Peters GW, Dong AX, Kohn R. A copula based Bayesian approach for paid–incurred claims models for non-life insurance reserving. Insurance: Mathematics and Economics. 2014 Nov 1;59:258-78.
https://doi.org/10.1016/j.insmatheco.2014.09.011

- SSRN preprint https://ssrn.com/abstract=2980405

119. Panayi E, Peters GW, Kosmidis I. Liquidity commonality does not imply liquidity resilience commonality: a functional characterisation for ultra-high frequency cross-sectional LOB data. Quantitative Finance. 2015 Oct 3;15(10):1737-58. https://doi.org/10.1080/14697688.2015.1071075

120. Dean TA, Singh SS, Jasra A, Peters GW. Parameter estimation for hidden Markov models with intractable likelihoods. Scandinavian Journal of Statistics. 2014 Dec;41(4):970-87. doi: 10.1111/sjos.12077
https://doi.org/10.1111/sjos.12077

121. Hosack GR, Peters GW, Ludsin SA. Interspecific relationships and environmentally driven catchabilities estimated from fisheries data. Canadian journal of fisheries and aquatic sciences. 2014;71(3):447-63.
https://doi.org/10.1139/cjfas-2013-0236

122. Nevat I, Peters GW, Doucet A, Yuan J. Joint channel and Doppler offset estimation in dynamic cooperative relay networks. IEEE Transactions on Wireless Communications. 2014 Oct 8;13(12):6570-9.
https://doi.org/10.1139/cjfas-2013-0236

123. Yan S, Malaney R, Nevat I, Peters GW. Optimal information-theoretic wireless location verification. IEEE Transactions on Vehicular Technology. 2014 Jan 22;63(7):3410-22.
https://doi.org/10.1109/TVT.2014.2302022

2013

124. Nevat I, Peters GW, Collings IB. Distributed detection in sensor networks over fading channels with multiple antennas at the fusion centre. IEEE transactions on signal processing. 2013 Dec 3;62(3):671-83. DOI: 10.1109/TVT.2014.2302022
https://doi.org/10.1109/TVT.2014.2302022

125. Nevat I, Peters GW, Collings IB. Random field reconstruction with quantization in wireless sensor networks. IEEE Transactions on Signal Processing. 2013 Sep 5;61(23):6020-33.
https://doi.org/10.1109/TSP.2013.2280442

126. Korotsil I, Peters GW, Law MG, Regan D. Herd immunity effect of HPV vaccination program in Australia under assumption of reduced susceptibility to re-infection following recovery. Vaccine. 2013;31(15):1931-6.
https://doi.org/10.1016/j.vaccine.2013.02.018

127. Hayes KR, Barry SC, Hosack GR, Peters GW. Severe uncertainty and info-gap decision theory. Methods in Ecology and Evolution. 2013 Jul;4(7):601-11.
https://doi.org/10.1111/2041-210X.12046

128. Peters, G.W., Targino, R. and Shevchenko, P.V., 2013. Understanding operational risk capital approximations: first and second orders. Governance and Regulation, 2(3).

    - SSRN preprint https://ssrn.com/abstract=2373123

129. Shevchenko, P. and Peters, G.W., 2013. Loss Distributional Approach of Operational Risk Capital Modelling under Basel II: Combining Different Data Sources for Risk Estimation. Governance and Regulation, 2(3).

    - SSRN preprint https://ssrn.com/abstract=2980464

130. Del Moral P, Jacob PE, Lee A, Murray L, Peters GW. Feynman-Kac particle integration with geometric interacting jumps. Stochastic Analysis and Applications. 2013 Sep 3;31(5):830-71.
https://doi.org/10.1080/07362994.2013.817247

131. Korostil IA, Peters GW, Cornebise J, Regan DG. Adaptive Markov chain Monte Carlo forward projection for statistical analysis in epidemic modelling of human papillomavirus. Statistics in medicine. 2013 May 20;32(11):1917-53. https://doi.org/10.1002/sim.5590

132. Peters GW, Briers M, Shevchenko P, Doucet A. Calibration and filtering for multi factor commodity models with seasonality: incorporating panel data from futures contracts. Methodology and Computing in Applied Probability. 2013 Dec;15:841-74. DOI10.1007/s11009-012-9286-7
https://link.springer.com/content/pdf/10.1007%2Fs11009-012-9286-7.pdf

    - SSRN preprint https://ssrn.com/abstract=2531821

2012

133. Peters GW, Sisson SA, Fan Y. Likelihood-free Bayesian inference for -stable models. Computational Statistics Data Analysis. 2012 Nov 1;56(11):3743-56.
https://doi.org/10.1016/j.csda.2010.10.004

    - SSRN preprint https://ssrn.com/abstract=2980440

134. Hosack GR, Peters GW, Hayes KR. Estimating density dependence and latent population trajectories with unknown observation error. Methods in Ecology and Evolution. 2012 Dec;3(6):1028-38.
https://doi.org/10.1111/j.2041-210X.2012.00218.x

135. Burgman M, Franklin J, Hayes KR, Hosack GR, Peters GW, Sisson SA. Modeling extreme risks in ecology. Risk Analysis: An International Journal. 2012 Nov;32(11):1956-66.
https://doi.org/10.1111/j.1539-6924.2012.01871.x

136. Peters GW, Fan Y, Sisson SA. On sequential Monte Carlo, partial rejection control and approximate Bayesian computation. Statistics and Computing. 2012 Nov;22:1209-22.DOI10.1007/s11222-012-9315-y
DOI10.1007/s11222-012-9315-y

    - SSRN preprint https://ssrn.com/abstract=2980448

137. Peters GW, Nevat I, Yuan J, Collings IB. System identification in wireless relay networks via a gaussian process. IEEE transactions on vehicular technology. 2012 Jul 25;61(9):3969-83.
https://doi.org/10.1109/WCNC.2012.6214392

2011

138. Peters GW, Shevchenko PV, Young M, Yip W. Analytic loss distributional approach models for operational risk from the -stable doubly stochastic compound processes and implications for capital allocation. Insurance: Mathematics and Economics. 2011 Nov 1;49(3):565-79. https://doi.org/10.1016/j.insmatheco.2011.08.007

139. Peters, G.W., Kannan, B., Lasscock, B., Mellen, C. and Godsill, S., 2011. Bayesian cointegrated vector autoregression models incorporating alpha-stable noise for inter-day price movements via approximate Bayesian computation. Bayesian Analysis, 6(4), pp.755-792.DOI: 10.1214/11-BA628
https://doi.org/10.1214/11-BA628

140. Peters GW, Byrnes AD, Shevchenko PV. Impact of insurance for operational risk: Is it worthwhile to insure or be insured for severe losses?. Insurance: Mathematics and Economics. 2011 Mar 1;48(2):287-303.
https://doi.org/10.1016/j.insmatheco.2010.12.001

    - SSRN preprint https://ssrn.com/abstract=2980441

141. Bornn, L., Cornebise, J. and Peters, G.W., 2011. Discussion of " Riemann manifold Langevin and Hamiltonian Monte Carlo methods" by M. Girolami and B. Calderhead. Journal of the Royal Statistical Society Series B - comments on read paper 2011 Mar;73(2):123-214.

2010

142. Cornebise, J. and Peters, G.W., 2009. Discussion of " Particle Markov Chain Monte Carlo" by C. Andrieu, A. Doucet and R. Hollenstein. Journal of the Royal Statistical Society Series B - comments on read paper, 72(3),269342.

143. Peters GW, Kannan B, Lasscock B, Mellen C. Model selection and adaptive Markov chain Monte Carlo for Bayesian cointegrated VAR model. Bayesian Analysis. 2010 Jan 1;5(3):465-91.DOI:10.1214/10-BA518
https://doi.org/10.1214/10-BA518

144. Peters GW, Wüthrich MV, Shevchenko PV. Chain ladder method: Bayesian bootstrap versus classical bootstrap. Insurance: Mathematics and Economics. 2010 Aug 1;47(1):36-51. https://doi.org/10.1016/j.insmatheco.2010.03.007

    - SSRN preprint https://ssrn.com/abstract=2980411

145. Peters GW, Nevat I, Sisson SA, Fan Y, Yuan J. Bayesian symbol detection in wireless relay networks via likelihood-free inference. IEEE transactions on signal processing. 2010 Jun 10;58(10):5206-18. doi:10.1109/TSP.2010.2052457 https://ieeexplore.ieee.org/iel5/78/5571790/05483096.pdf

146. Nevat I, Peters GW, Yuan J. Detection of Gaussian constellations in MIMO systems under imperfect CSI. IEEE transactions on communications. 2010 Mar 29;58(4):1151-60. https://doi.org/10.1109/TCOMM.2010.04.080657

2009

147. Fan Y, Peters GW, Sisson SA. Automating and evaluating reversible jump MCMC proposal distributions. Statistics and Computing. 2009 Dec;19:409-21. DOI10.1007/s11222-008-9101-z https://link.springer.com/content/pdf/10.1007/s11222-008-9101-z.pdf

148. Peters, G.W., Shevchenko, P.V. and Wuthrich, M.V., 2009. Dynamic operational risk: modeling dependence and combining different sources of information. The Journal of Operational Risk, 4(2), pp.69-104. http://doi.org/10.21314/JOP.2009.059

    - SSRN preprint https://ssrn.com/abstract=2529590

149. Peters GW, Shevchenko PV, Wüthrich MV. Model uncertainty in claims reserving within Tweedie's compound Poisson models. ASTIN Bulletin: The Journal of the IAA. 2009 May;39(1):1-33. https://doi.org/10.2143/AST.39.1.2038054

150. Peters GW, Nevat I, Yuan J. Channel estimation in OFDM systems with unknown power delay profile using transdimensional MCMC. IEEE transactions on signal processing. 2009 May 19;57(9):3545-61. https://doi.org/10.1109/TSP.2009.2023358

2007

151. Peters, G.W., Johansen, A.M. and Doucet, A., 2007. Simulation of the Annual Loss Distribution in Operational Risk via Panjer Recursions and Volterra Integral Equations for Value at Risk and Expected Shortfall Estimation. Journal of Operational Risk, 2(3). https://doi.org/10.21314/JOP.2007.031

    - SSRN preprint https://ssrn.com/abstract=2980408

152. Del Moral P, Doucet A, Peters GW. Sharp propagation of chaos estimates for Feynman–Kac particle models. Theory of Probability Its Applications. 2007;51(3):459-85.DOI.10.1137/S0040585X97982529 https://epubs.siam.org/doi/10.1137/S0040585X97982529

2006

153. Peters G, Sisson S. Bayesian Inference, Monte Carlo Sampling and Operational Risk. Peters GW and Sisson SA (2006)"Bayesian Inference, Monte Carlo Sampling and Operational Risk". Journal of Operational Risk. 2006;1(3).https://doi.org/10.21314/JOP.2006.014

- SSRN preprint https://ssrn.com/abstract=2980407

REFEREED CONFERENCE PAPERS PUBLISHED IN FULL IN PROCEEDINGS (PEER REVIEWED)

1. Wu J. and Peters, G.W., 2025, October. Modeling Spatiotemporal Multimodal Data with Kernel Graph Regression Models and Copulas. Conference: 2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC) https://doi.org/10.1109/APSIPAASC65261.2025.11249265

2. Zheng, C., Egan, M., Clavier, L., Peters, G.W. and Gorce, J.M., 2019, May. Copula-based interference models for IoT wireless networks. In ICC 2019-2019 IEEE International Conference on Communications (ICC) (pp. 1-6). IEEE. https://doi.org/10.1109/ICC.2019.8761783

3. Zheng, C., Egan, M., Clavier, L., Peters, G. W. and Gorce, J.M., 2019, August. On the validity of isotropic complex -stable interference models for interference in the IoT.

4. Desai, B.A., Divakaran, D.M., Nevat, I., Peter, G.W. and Gurusamy, M., 2019, January. A feature- ranking framework for IoT device classification. In 2019 11th International Conference on Communication Systems Networks (COMSNETS) (pp. 64-71). IEEE. https://doi.org/10.1109/COMSNETS.2019.8711210

5. Nevat, I., Septier, F., Avnit, K., Peters, G.W. and Clavier, L., 2018, September. Joint localization and clock offset estimation via time-of-arrival with ranging offset. In 2018 26th European Signal Processing Conference (EUSIPCO) (pp. 672-676). IEEE. https://doi.org/10.23919/EUSIPCO.2018.8553287

6. Peters, G.W., Ming, D., Galasso, C. and Huang, C., 2018, June. Advancing Ground Motion Characterization for Post-Event Loss Assessment. In 16th European Conference on Earthquake Engineering.

7. Koh, J.Y., Peters, G.W., Leong, D., Nevat, I. and Wong, W.C., 2017, May. Privacy-aware incentive mechanism for mobile crowd sensing. In 2017 IEEE International Conference on Communications (ICC) (pp. 1-6). IEEE. http://dx.doi.org/10.1109/ICC.2017.7997418

8. Liu, J., Nevat, I., Zhang, P. and Peters, G.W., 2017, March. Multimodal data fusion in sensor networks via copula processes. In 2017 IEEE Wireless Communications and Networking Conference (WCNC) (pp. 1-6). IEEE. https://doi.org/10.1109/SENSORS43011.2019.8956540

9. Ames M., Bagnarosa G., Peters G.W. and Shevchenko P.V. (2017) Forecasting covariance for optimal carry trade portfolio allocations. 2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 5910-5914. https://doi.org/10.1109/ICASSP.2017.7953290

10. Yamagata, Y., Murakami, D., Peters, G.W. and Matsui, T., 2015. A Spatiotemporal Analysis of Participatory Sensing Data 'Tweets' and Extreme Climate Events Toward Real-Time Urban Risk Management. This manuscript was presented in the 14th International Conference on Computers in Urban Planning and Urban Management (CUPUM 2015). https://arxiv.org/abs/1505.06188 10.1109/ACCESS.2016.2516918

11. Egan, M., Peters, G.W., Nevat, I. and Collings, I.B., 2015, June. Pass go and collect $200: the profitable union of facilities and small-cells. In 2015 IEEE International Conference on Communications (ICC) (pp. 3423-3428). IEEE. https://doi.org/10.1109/ICC.2015.7248854

12. Yan, X., Clavier, L., Peters, G.W., Azzaoui, N., Septier, F. and Nevat, I., 2015, June. Skew-t copula for dependence modelling of impulsive (-stable) interference. In 2015 IEEE International Conference on Communications (ICC) (pp. 4816-4821). IEEE. http://dx.doi.org/10.1109/ICC.2015.7249085

13. Nevat, I., Peters, G.W., Septier, F. and Matsui, T., 2015, June. Wind storm estimation using a heterogeneous sensor network with high and low resolution sensors. In 2015 IEEE International Conference on Communications (ICC) (pp. 4865-4870). IEEE. https://doi.org/10.1109/ICC.2015.7249093

14. Yan, S., Malaney, R., Nevat, I. and Peters, G.W., 2015, May. Location spoofing detection for VANETs by a single base station in Rician fading channels. In 2015 IEEE 81st Vehicular Technology Conference (VTC Spring) (pp. 1-6). IEEE. https://doi.org/10.1109/TVT.2015.2453160

15. Peters, G.W., Myrvoll, T.A., Matsui, T., Nevat, I. and Septier, F., 2014, December. Communications meets copula modeling: Non-standard dependence features in wireless fading channels. In 2014 IEEE Global Conference on Signal and Information Processing (GlobalSIP) (pp. 1224-1228). IEEE. https://doi.org/10.1109/GlobalSIP.2014.7032317

16. Zhang, P., Peters, G.W., Nevat, I., Xiao, G. and Tan, H.P., 2014, October. Distributed event detection in sensor networks under random spatial deployment. In 2014 IEEE Military Communications Conference (pp. 623-629). IEEE. https://doi.org/10.1109/MILCOM.2014.110

17. Peters, G.W., Nevat, I., Clavier, L. and Septier, F., 2014, May. Distributional upper bound on the interference in spatial wireless multiuser ultrawideband communication systems. In 2014 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) (pp. 5764-5768). IEEE. https://dx.doi.org/10.1109/ICASSP.2014.6854708

18. Nevat, I., Eger, O., Peters, G.W. and Septier, F., 2014, April. NEPS: Narrowband Efficient Positioning System for delivering resource efficient GNSS receivers. In 2014 IEEE Ninth International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP) (pp. 1-6). IEEE. http://dx.doi.org/10.1109/ISSNIP.2014.6827605

19. Peters, G.W., Nevat, I., Lin, S. and Matsui, T., 2014, April. Modelling threshold exceedance levels for spatial stochastic processes observed by sensor networks. In 2014 IEEE Ninth International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP) (pp. 1-7). IEEE. http://dx.doi.org/10.1109/ISSNIP.2014.6827635

20. Yan, S., Malaney, R., Nevat, I. and Peters, G.W., 2014, June. Signal strength based wireless location verification under spatially correlated shadowing. In 2014 IEEE International Conference on Communications (ICC) (pp. 2617-2623). IEEE. http://dx.doi.org/10.1109/ICC.2014.6883718

21. Yan, S., Malaney, R., Nevat, I. and Peters, G.W., 2014, February. Timing information in wireless communications and optimal location verification frameworks. In 2014 Australian Communications Theory Workshop (AusCTW) (pp. 144-149). IEEE. https://doi.org/10.1109/AusCTW.2014.6766443

22. Panayi, E. and Peters, G.W., 2014, March. Survival models for the duration of bid-ask spread deviations. In 2014 IEEE Conference on Computational Intelligence for Financial Engineering Economics (CIFEr) (pp. 9-16). IEEE. https://doi.org/10.1109/CIFEr.2014.6924048

23. Nevat, I., Peters, G.W. and Collings, I.B., 2013, September. Localization in mobile wireless sensor networks via sequential global optimization. In 2013 IEEE 24th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC) (pp. 281-285). IEEE. http://dx.doi.org/10.1109/PIMRC.2013.6666146

24. Nevat, I., Peters, G.W. and Collings, I.B., 2013, June. Estimation of correlated and quantized spatial random fields in wireless sensor networks. In 2013 IEEE International Conference on Communications (ICC) (pp. 1931-1935). IEEE. http://dx.doi.org/10.1109/ICC.2013.6654805

25. Ding, N., Nevat, I., Peters, G.W. and Yuan, J., 2013, June. Opportunistic network coding for two-way relay fading channels. In 2013 IEEE International Conference on Communications (ICC) (pp. 5980- 5985). IEEE. http://dx.doi.org/10.1109/ICC.2013.6655556

26. Komatsu, T., Peters, G.W., Matsui, T., Nevat, I. and Takeda, K., 2013, June. Modeling room impulse response via composites of spatial-temporal Gaussian processes. In Proceedings of Meetings on Acoustics ICA2013 (Vol. 19, No. 1, p. 040098). Acoustical Society of America. http://dx.doi.org/10.1121/1.4806130

27. Yan, S., Malaney, R., Nevat, I. and Peters, G.W., 2012, December. An information theoretic location verification system for wireless networks. In 2012 IEEE Global Communications Conference (GLOBECOM) (pp. 5415-5420). IEEE. http://dx.doi.org/10.1109/GLOCOM.2012.6503982

28. Gu, W., Peters, G.W., Clavier, L., Septier, F. and Nevat, I., 2012, August. Receiver study for cooperative communications in convolved additive -stable interference plus Gaussian thermal noise. In 2012 International Symposium on Wireless Communication Systems (ISWCS) (pp. 451-455). IEEE. http://dx.doi.org/10.1109/ISWCS.2012.6328408

29. Nevat, I., Peters, G.W. and Collings, I.B., 2012, January. Location-aware cooperative spectrum sensing via Gaussian processes. In 2012 Australian Communications Theory Workshop (AusCTW) (pp. 19-24). IEEE. http://dx.doi.org/10.1109/AusCTW.2012.6164900

30. Nevat, I., Peters, G.W., Yuan, J. and Collings, I.B., 2012, April. System identification in wireless relay networks via Gaussian process Iterated Conditioning on the Modes estimation. In 2012 IEEE Wireless Communications and Networking Conference (WCNC) (pp. 369-374). IEEE. https://doi.org/10.1109/WCNC.2012.6214392

31. Nevat, I., Peters, G.W. and Yuan, J., 2012, April. Blind spectrum sensing in cognitive radio over fading channels and frequency offsets. In 2012 IEEE Wireless Communications and Networking Conference (WCNC) (pp. 1039-1043). IEEE. http://dx.doi.org/10.1109/WCNC.2012.6213926

32. Peters, G.W., Lasscock, B. and Balakrishnan, K., 2011, December. Rank estimation in cointegrated vector auto-regression models via automated trans-dimensional Markov chain Monte Carlo. In 2011 4th IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP) (pp. 41-44). IEEE. https://doi.org/10.1109/CAMSAP.2011.6136040

33. Nevat, I., Han, C., Peters, G.W. and Yuan, J., 2011, June. Spectrum sensing in cooperative cognitive networks with partial CSI. In 2011 IEEE Statistical Signal Processing Workshop (SSP) (pp. 373-376). IEEE.http://dx.doi.org/10.1109/SSP.2011.5967707

34. Nevat, I., Peters, G.W. and Yuan, J., 2011, September. Channel tracking in relay systems via particle MCMC. In 2011 IEEE Vehicular Technology Conference (VTC Fall) (pp. 1-5). IEEE. http://dx.doi.org/10.1109/VETECF.2011.6093024

35. Nevat, I., Peters, G.W. and Yuan, J., 2009. Coherent detection for cooperative networks with arbitrary relay functions using likelihood-free inference. In NEWCOM-ACorn Workshop.

36. Nevat, I., Peters, G.W. and Yuan, J., 2009, April. Channel estimation in OFDM systems with unknown power delay profile using trans-dimensional MCMC via stochastic approximation. In VTC Spring 2009- IEEE 69th Vehicular Technology Conference (pp. 1-6). IEEE. http://dx.doi.org/10.1109/VETECS.2009.5073436

37. Peters G.W., Shevchenko P. and Wüthrich (2009) Dynamic Operational Risk: modelling dependence and combining different sources of information. 15th International Conference on Computing in Economics and Finance.

38. Peters G.W., Kannan B., Lasscock B. and Mellen C. (2009) Rank Estimation and Adaptive Markov chain Monte Carlo for Bayesian Cointegrated VAR Models. 15th International Conference on Computing in Economics and Finance.

39. Peters G.W., Shevchenko P. and Wüthrich M. (2008) Model Risk in Claims Reserving within Tweedie's Compound Poisson Models". Astin Colloquium, UK.

40. Nevat, I., Peters, G.W. and Yuan, J., 2008, September. Bayesian inference in linear models with a random Gaussian matrix: algorithms and complexity. In 2008 IEEE 19th International Symposium on Personal, Indoor and Mobile Radio Communications (pp. 1-6). IEEE. https://doi.org/10.1109/PIMRC.2008.4699427

41. Nevat, I., Peters, G.W. and Yuan, J., 2008, March. Maximum a-posteriori estimation in linear models with a random Gaussian model matrix: A Bayesian-EM approach. In 2008 IEEE International Conference on Acoustics, Speech and Signal Processing (pp. 2889-2892). IEEE.http://dx.doi.org/10.1109/ICASSP.2008.4518253

42. Nevat, I., Peters, G.W. and Yuan, J., 2008, May. OFDM CIR estimation with unknown length via Bayesian model selection and averaging. In VTC Spring 2008-IEEE Vehicular Technology Conference (pp. 1413-1417). IEEE. https://doi.org/10.1109/VETECS.2008.297

TECHNICAL REPORTS

1. S. A. Sisson, G. W. Peters, M. Briers and Y. Fan 2010 "A Note on Target Distribution Ambiguity for Likelihood-Free Samplers (ABC)" [arXiv: 1005.5201]
2. Del Moral P., Doucet A. and Peters G.W., (Version 1 - 2002 JRSSB, Revised - 2004 JRSSB, rejected)"Sequential Monte Carlo Samplers" - Original Technical Report - CUED report series- Cambridge University.
3. Peters G.W. and Terauds V. (2007) Quantifying Operational Risk, part of report by Sisson S.A. and Franklin J. Low Probability Large Consequence Events, Australian Center for Excellence in Risk Analysis, project no. 06/02.
4. Boronia Capital Pty. Ltd (2008). Vector Auto Regressions and Cointegration Modelling.
5. Operational Risk OpRA System Combining and Aggregation Methodology, (2007). Commonwealth Bank of Australia, Internal Report and Analysis.
6. Operational Risk OpRA System Capital Allocation and Capital Sensitivity Methodology, (2007). Commonwealth Bank of Australia, Internal Report and Analysis.
7. Operational Risk OpRA System Accuracy Testing, (2006). Commonwealth Bank of Australia, Internal Report and Analysis.
8. Operational Risk OpRA System Sensitivity Analysis Report (Convolution, Distribution Choice, Number of Exposures), (2006). Commonwealth Bank of Australia, Internal Report and Analysis.
9. Operational Risk OpRA System Survey Design and Methodology Analysis, (2005). Commonwealth Bank of Australia, Internal Report and Analysis.