

Recent significant publications (2004 onwards) – Gareth W. Peters

Summary:

Preprints	Journal Papers (submitted)	=	25
	Scholarly Books In Preparation	=	3
	Scholarly Research Books Author	=	2
	Scholarly Research Books Editor	=	3
	Scholarly Book Chapters	=	9
	Journal Papers (peer reviewed) Appeared	=	110
	Conference Papers (peer reviewed) in Proceedings	=	37

Scholarly books (peer reviewed)

1. Cruz M., **Peters G.W.**, and Shevchenko P.V., *Fundamental Aspects of Operational Risk Modelling and Insurance Analytics: A Handbook of Operational Risk*. Wiley New York, 01/01/2014. (900 pages)
2. **Peters G.W.**, and Shevchenko P.V., *Advances in Heavy Tailed Risk Modelling: A Handbook of Operational Risk*. Wiley New York, 01/01/2014. (700 pages)
3. Dick J., Kuo F., **Peters G.W.**, and Sloan I.H., eds. *Monte Carlo and Quasi-Monte Carlo Methods 2012*. Springer Berlin, 2014.
4. **Peters G.W.** and Matsui T. eds. *Theoretical Aspects of Spatial-Temporal Modeling*. Springer Briefs, Springer Japan, 2015.
5. **Peters G.W.** and Matsui T., eds. *Modern Methodology and Applications in Spatial-Temporal Modeling*. Springer Briefs, Springer Japan, 2015.

Scholarly book chapters (peer reviewed)

6. **Peters G.W.**, Korotsil I. and Regan D. (2013) "HPV Modelling Goes Bayesian: Inference via Advanced Markov chain Monte Carlo Methods.", Book chapter on Modeling and Calibration of Statistical Models in "Human Papilloma virus: Prevalence, Detection and Management" (76 pages)- Book Publisher, www.novapublishers.com. Chapter 17, pp 453-526
7. **Peters G.W.** and Panayi E. (2018) "Calibration of Financial Limit Order Book Stochastic Models via Approximate Bayesian Computation .", Book chapter in **Handbook of Approximate Bayesian Computation** (eds. Sisson S., Fan Y. and Beaumont M.). Wiley New York. Part II, Chapter 15, pp 1-44.
8. **Peters G.W.** and Septier F. (2015) "An Overview of Recent Advances in Monte-Carlo Methods for Bayesian Filtering in High-dimensional Spaces." Book chapter in **Springer Briefs Japan** (eds. Peters GW. and Matsui T.). Springer Japan. Chapter 2, pp 31-61.
9. Azzaoui N., Clavier L., Guillin A. and **Peters G.W.** (2015) "Spectral Measures of Heavy Tailed Distributions: An Overview of their Applications in Wireless Communications Channel Modelling." Book chapter in **Springer Briefs Japan** (eds. Peters GW. and Matsui T.). Springer Japan. Chapter 3, pp 63-95.
10. **Peters G.W.**, Nevat I. and Matsui T. (2015) "How to Utilize Sensor Network Data to Efficiently Perform Model Calibration and Spatial Field Reconstruction." Book chapter in **Springer Briefs Japan** (eds. Peters GW. and Matsui T.). Springer Japan. Chapter 3, pp 25-62.
11. **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." **Book**

chapter in Edited volume on Blockchain "Banking Beyond Banks and Money" Editor: Paolo Tasca, Tomaso Aste, Lorian Pelizzon and Nicolas Perony. Chapter 13, pp 239-278.

12. Peters G.W. and Vishnia G.R. (2016) "Blockchain Architectures for Electronic Exchange Reporting Requirements: EMIR, Dodd Frank, MiFID I/II, MiFIR, REMIT, Reg NMS and T2S." Book chapter in **Handbook of Digital Banking and Internet Finance: Alternative Finance, Financial Inclusion, Impact Investing and Decentralized Consensus Ledger**, David LEE Kuo Chuen, and Robert Deng ed. Chapter 12, pp271-329.
13. Peters G.W., Shevchenko P.V., Cohen R. and Maurice D. (2018) "**Understanding Cyber Risk and Cyber Insurance.**" Book chapter in FinTech: Growth and Deregulation which is edited by Diane Maurice (of the Banking and Financial Services department at the US Department of the Treasury and Resident Advisor for the Tunisia Central Bank), Jack Freund (Senior Manager, Cyber Risk Framework at TIAA), and David Fairman (Chief Information Security Officer for the Royal Bank of Canada)ed. Risk Books. Chapter 12, pp 1-31.
14. Peters G.W., Shevchenko P.V., Cohen R. and Maurice D. (2018) "**Statistical Machine Learning Analysis of Cyber Risk: Event Case Studies.**" Book chapter in FinTech: Growth and Deregulation which is edited by Diane Maurice (of the Banking and Financial Services department at the US Department of the Treasury and Resident Advisor for the Tunisia Central Bank), Jack Freund (Senior Manager, Cyber Risk Framework at TIAA), and David Fairman (Chief Information Security Officer for the Royal Bank of Canada)ed. Chapter 3, pp 1-28.

Refereed journal articles – Accepted (peer reviewed)

2021

15. Xiang Q. Nevat I and **Peters G.W.** (2021) "Bayesian Spatial Field Reconstruction with Unknown Distortions in Sensor Networks." IEEE Transactions on Signal Processing (to appear)
16. Jiang Y., Macrina A and **Peters G.W.** (2021) "Multiple barrier-crossing of an Ornstein-Uhlenbeck diffusion in consecutive periods" Stochastic Analysis and Applications (to appear)
17. Murakami D., **Peters G.W.**, Matsui T. and Yamagata Y. (2021) "Spatiotemporal analysis of urban heatwaves using Tukey g-and-h random field models" IEEE Access (to appear)
18. J. Fonseca, I. Nevat, **G.W. Peters** (2021) "Quantifying the Uncertain Effects of Climate Change on Building Energy Consumption Across the United States" Applied Energy (to appear)
19. Yan K.H., Peters G.W. and Chan J. (2020) "Mortality Models Incorporating Long Memory Improve Life Table Estimations: a comprehensive analysis." Annals of Actuarial Science. (to appear)

2020

20. Marowka M, **Peters G.W.**, Kantas N, Bagnarosa G. (2020) "Factor-augmented Bayesian cointegration models: a case-study on the soybean crush spread." Journal of the Royal Statistical Society: Series C (Applied Statistics). 2020 Jan 7.
21. Yan H, **Peters G.W.**, Chan JS. (2020) "Multivariate Long-Memory Cohort Mortality Models." ASTIN Bulletin: The Journal of the IAA. Jan;50(1):223-63.

22. Dias F. and **Peters G.W.** (2020) "A Non-parameteric Test and Predictive Model for Signed Path Dependence." *Computational Economics* 1-38.
23. Koh JY, **Peters G.W.**, Nevat I, Leong D. (2020) "Privacy Considerations in Participatory Data Collection via Spatial Stackelberg Incentive Mechanisms." *Methodology and Computing in Applied Probability*. Jul 9:1-32.
24. Marowka M, **Peters G.W.**, Kantas N, Bagnarosa G. (2020) "Factor-augmented Bayesian cointegration models: a case-study on the soybean crush spread." *Journal of the Royal Statistical Society: Series C (Applied Statistics)*. Jan 7.
25. Ames, Matthew, Guillaume Bagnarosa, Tomoko Matsui, **Gareth W. Peters**, and Pavel V. Shevchenko. (2020) "Which risk factors drive oil futures price curves?." *Energy Economics* 87 (2020): 104676.
26. Koh JY, **Peters G.W.**, Nevat I, Leong D. "Probabilistic routing in wireless networks with privacy guarantees." *Computer Communications*. 2020 Feb 1;151:228-37.
27. Vishnia GR, **Peters G.W.** (2020) "AuditChain: A Trading Audit Platform Over Blockchain." *Frontiers in Blockchain*. 2020 Feb 26;3:9.
28. Dias F. and **Peters G.W.** (2020) "Non-parameteric Price Momentum Models for Global Equity Index and Currency Markets." *Royal Economics Society*
29. Yan H, **Peters G.W.**, Chan JS. Multivariate Long-Memory Cohort Mortality Models. *ASTIN Bulletin: The Journal of the IAA*. 2020 Jan;50(1):223-63.

2019

30. Georgescu DI, Higham NJ, **Peters G.W.** (2019) "Explicit solutions to correlation matrix completion problems, with an application to risk management and insurance." *Royal Society open science*. 2019 Mar 14;5(3):172348.
31. Dalessandro A, **Peters G.W.** (2019) "Efficient and Accurate Evaluation Methods for Concordance Measures via Functional Tensor Characterizations of Copulas." *Methodology and Computing in Applied Probability*. 2019 Dec 5:1-36.
32. Fung S., **Peters G.W.** and Shevchenko P.V. (2019) "Cohort Effects in Mortality Modelling: A Bayesian State-Space Approach" *Annals of Actuarial Science*. 13, 1, p. 109-144 36
33. Deyu M., Huang C., **Peters G.W.** and Galasso C. (2019) "Advancing Ground Motion Characterization for Post-Event Loss Assessment" 16th European Workshop on Earthquake Engineering.
34. Ming D., Huang C., **Peters G.W.** and Galasso C. (2019) "An Advanced Estimation Algorithm for Ground-Motion Models with Spatial Correlation" *Bulletin of the Seismological Society of America*. 2019 Apr 1;109(2):541-66.
35. **Peters G.W.** (2019) "Tutorial on General Quantile Time Series Constructions " *Risks* (invited special issue) *Risks* 2018, 6, 97; doi:10.3390/risks6030097

36. BA Desai, DM Divakaran, I Nevat, **GW Peters**, M Gurusamy (2019) "A feature-ranking framework for IoT device classification" 11th International Conference on Communication Systems & Networks (COMSNETS) 2019 Jan 7 (pp. 64-71). IEEE.
37. Zheng C, Egan M, Clavier L, **Peters G.W.**, Gorce JM. (2019) "Copula-based interference models for IoT wireless networks." InICC 2019-2019 IEEE International Conference on Communications (ICC) 2019 May 20 (pp. 1-6). IEEE.
38. Zheng C, Egan M, Clavier L, Peters G, Gorce JM. On the validity of isotropic complex α -stable interference models for interference in the iot. InICC 2019-2019 IEEE International Conference on Communications (ICC) 2019 May 20. IEEE.

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39. Zhang P., Nevat I., Septier F., **Peters G.W.** and Osborne M. (2018) "Spatial Field Reconstruction and Sensor Selection in Heterogeneous Sensor Networks with Stochastic Energy Harvesting" IEEE Transactions on Signal Processing. 2018 Feb 5;66(9):2245-57.
40. I Nevat, F Septier, K Avnit, **GW Peters**, L Clavier (2018) "Joint Localization and Clock Offset Estimation via time-of-arrival with ranging offset" 26th European Signal Processing Conference (EUSIPCO), 672-676
41. Ames M., **Peters G.W.**, Bagnarosa G and Shevchenko P. (2018) "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.
42. Yan S., **Peters G.W.**, Nevat I and Malaney R. (2018) "Location Verification Systems Based on Received Signal Strength with Unknown Transmit Powers" IEEE Communication Letters. 22(3):650-3.
43. **Peters G.W.**, Clark G., Thirlwell J. and Kulwal M. (2018) "Global Perspectives on Operational Risk Management and Practice. A survey by Institute of Operational Risk (IOR) and the Center for Financial Professionals (CeFPro)" Journal of Operational Risk. 2018;13(4).
44. Dalessandro A, **Peters G.W.** (2018) "Tensor approximation of generalized correlated diffusions and functional copula operators." Methodology and Computing in Applied Probability. 2018 Mar 1;20(1):237-71.

2017

45. Targino RS, **Peters G.W.**, Sofronov G, Shevchenko PV. "Optimal exercise strategies for operational risk insurance via multiple stopping times." Methodology and Computing in Applied Probability. 2017 Jun 1;19(2):487-518.
46. Zhang P., Nevat I., **Peters G.W.**, Furthwirt W., Huang Y. and Osborne M. (2017) "Sensor Selection and Random Field Reconstruction for Robust and Cost-effective Heterogeneous Weather Sensor Networks for the Developing World" Neural Information Processing Workshop.
47. Furthwirt W., Zhang P., **Peters G.W.** (2017) "Riemannian tangent space mapping and \\\elastic net regularization for cost-effective EEG markers of brain atrophy in Alzheimer's disease" Neural Information Processing Workshop.

48. **Peters G.W.**, Targino R. and Wuthrich M. "Bayesian Modelling, Monte Carlo Sampling and Capital Allocation of Insurance Risks" Risks (invited special issue "A Celebration of the Ties That Bind Us: Connections between Actuarial Science and Mathematical Finance") 2017 Dec;5(4):53.
49. Marowka M., **Peters G.W.**, Kantas N. and Bagnarosa G. (2017) "Some Recent Developments in Markov Chain Monte Carlo for Cointegrated Time Series." ESAIM: Proceedings and Surveys. Special issue (editors Prof. B Jourdain, Prof. E Gobet and Prof. B. Bouchard) 2017;59:76-103.
50. Toczydlowska D., **Peters G.W.**, Fung M.C. and Shevchenko P.V. (2017) "Stochastic Period and Cohort Effect State Space Mortality Models Incorporating Demographic Factors via Probabilistic Robust Principle Components.", Risks: Special Issue on "Aging Population Risks". 2017 Sep;5(3):42.
51. Panayi S., **Peters G.W.** and Kyriakides G. (2017) "Sensor Network Based Precision Agriculture: Obtaining Optimal Environmental Schedules for Agaricus Bisporus Production via Variable Domain Functional Regression" PLOS One. 2017 Sep 29;12(9):e0181921.
52. Nevat, P. Zhang, G. Frenkel and **Peters G.W.** (2017) "Parameter Estimation in Sensor Networks with Probabilistic Clipping". IEEE Transactions on Signal Processing. 2017 May 19;65(15):4047-58.
53. Fung M.C., **Peters G.W.** and Shevchenko P.V. (2017) "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.
54. Ames M, Bagnarosa G, **Peters G.W.** (2017) "Violations of uncovered interest rate parity and international exchange rate dependences." Journal of International Money and Finance. 2017 May 1;73:162-87.
55. de Freitas M., Egan M., Clavier L., Goupil A., **Peters G.W.**, and Azzaoui N (2017) "Capacity Bounds for Additive Symmetric alpha-Stable Noise Channels" IEEE Transactions on Information Theory. 2017 Mar 2;63(8):5115-23.
56. I. Nevat, P. Zhang, G. Frenkel and **G.W. Peters.** (2017) "Parameter Estimation in Sensor Networks with Probabilistic Clipping". IEEE Transactions on Signal Processing. 2017 May 19;65(15):4047-58.
57. J.Y. Koh, D. Leong, **Peters G.W.**, I. Nevat, and W.C. Wong, (2017) "Optimal Privacy-Preserving Probabilistic Routing for Wireless Networks" IEEE transaction on Information Forensics and Security. 2017 Apr 26;12(9):2105-14.
58. E. Karimalis, I. Kosmidis 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.

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59. **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 for Hong Kong Monetary Authority - joint with ASTRI (HK).
60. Vishnia G.R. and **Peters G.W.** (2016) "Overview of Blockchain Platforms and Big Data". Journal of Financial Transformation. Capco.com
61. **Peters G.W.**, Chen W. and Gerlach R. (2016) "Estimating Quantile Families of Loss Distributions for Non-Life Insurance Modelling via L-Moments." Risks (Special Issue on General Insurance). 2016 Jun;4(2):14.
62. Panayi E., **Peters G.W.**, Danielsson J. and Zigrand J.P. (2016) "Designating Market Maker Behaviour in Limit Order Book Markets" Econometrics and Statistics, Elsevier. 2018 Jan 1;5:20-44.

63. M. Egan, **Peters G.W.**, Nevat I., Shirvanimoghaddam M. and Collings I. (2016) " A Ruin Theoretic Design Approach for Wireless Cellular Network Sharing with Facilities", IEEE Transactions on Emerging Telecommunications Technologies. 2017 Jul;28(7):e3141.
64. **Peters G.W.**, Shevchenko P.V., Hassani B. and Chapelle A. (2016) "Should AMA be Replaced with SMA for Operational Risk ? ". Journal of Operational Risk. 2016 Sep 12;11(3).
65. **Peters G.W.**, Shevchenko P.V., Hassani B. and Chapelle A. (2016) "Standardized Measurement Approach: Pros and Cons." Response to Basel Committee BIS 2016 consultative call for SMA proposal. June. Basel Committee Website Publication.
66. Chapelle A, Hassani B, **Peters G.W.**, Sekeris E and Shevchenko P. "Removing the AMA could become a source of op risk." Risk Magazine.
67. **Peters G.W.**, Targino R. and Wuthrich M.V. (2016) "Full Bayesian Uncertainty Analysis of the Claims Development Result. ". Insurance Mathematics and Economics. 2017 Mar 1;73:41-53.
68. Ames M., Bagnarosa G., **Peters G.W.** and Shevchenko P.V. (2016) "Understanding the Interplay Between Covariance Forecasting Factor Models and Risk Based Portfolio Allocations in Currency Carry Trades." Special issue of IEEE Transactions Signal Processing ICASSP Financial Engineering.
69. Murakami D., **Peters G.W.**, Yamagata Y. and Matsui T. (2016) "Participatory Sensing Data "TWEETS" for Micro-Urban Real-Time Resiliency Monitoring and Risk Management". IEEE Access journal. 2016 Jan 12;4:347-72.
70. Zhang P, Nevat I, **Peters G.W.**, Clavier L. (2016) "Event detection in sensor networks with non-linear amplifiers via mixture series expansion." IEEE Sensors Journal. 2016 Jul 15;16(18):6939-46.
71. I. Nevat, **Peters G.W.**, K. Avnit, F. Septier and L. Clavier. (2016) "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.
72. S. Yan, I. Nevat, **Peters G.W.**, R. Malaney. (2016) "Location Verification Systems for VANETs Under Spatially Correlated Shadowing", IEEE Transactions on Wireless Communications. 2016 Feb 26;15(6):4132-44.
73. **Peters G.W.** , Chapelle A. and Panayi E. (2016) "Opening Discussion on Banking Sector Risk Exposures and Vulnerabilities from Virtual Currencies: An Operational Risk Perspective." Journal of Banking Regulation. 2016 Nov 1;17(4):239-72.

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74. T. Nguyen, F. Septier, H. Rajaona, **Peters G.W.**, I. Nevat, Y. Delignon. (2015) "A Bayesian Perspective on Multiple Source Localization in Wireless Sensor Networks", IEEE Transactions on Signal Processing, April. 2015 Dec 4;64(7):1684-99.
75. Richards K.A., **Peters G.W.** and Dunsmuir W. (2015) "Heavy-Tailed Features and Empirical Analysis of the Limit Order Book Volume Profiles in Futures Markets." Journal of Financial Engineering. 2015 Sep 23;2(03):1550033.
76. **Peters G.W.**, Panayi E. and Chapelle A. (2015) "Trends in Crypto-Currencies and Blockchain Technologies: A Monetary Theory and Regulation Perspective." Invited Paper to: Journal of Financial Perspectives, Ernst and Young EY Global Financial Services Institute. 2015 Nov 7;3(3).

77. Dong, A. X.D., Chan J. and **Peters G.W.** (2015) "Risk Margin Quantile Function Via Parametric and Non-Parametric Bayesian Quantile Regression." *ASTIN Bulletin* 2015 Sep;45(3):503-50.
78. Panayi E. and **Peters G.W.** (2015) "Stochastic simulation framework for the Limit Order Book using liquidity-motivated agents" *International Journal of Financial Engineering*. 2015 Jun 1;2(02):1550013.
79. Targino R., **Peters G.W.** and Shevchenko P. (2015) "Sequential Monte Carlo Samplers for capital allocation under copula-dependent risk models." *Insurance: Mathematics and Economics*. 2015 Mar 1;61:206-26.
80. Zhang P., Nevat I., **Peters G.W.**, Xiao G. and Pink HP. (2015) "Event Detection in Wireless Sensor Networks in Random Spatial Sensors Deployments" *IEEE Transactions in Signal Processing*. 2015 Jul 1;63(22):6122-35.
81. Yan S., Malaney R., Nevat I. and **Peters G.W.** (2015) "Location Verification Systems for VANETs in Rician Fading Channels" *Location Verification Systems for VANETs in Rician Fading Channels.* *IEEE Transactions on Vehicular Technology (VTC)*. 2015 Jul 6;65(7):5652-64.
82. Nevat I., **Peters G.W.**, Septier F. and Matsui T. (2015) "Estimation of Spatially Correlated Random Fields in Heterogeneous Wireless Sensor Networks." *IEEE Transactions on Signal Processing*. 2015 Mar 13;63(10):2597-609.
83. Ames, M, **Peters G.W.**, Bagnarosa G. and Kosmidis I. (2015) "Exploring the Multivariate Upside and Downside Tail Exposure Risks of Currency Carry Trades via Tail Dependence." *Risk Management Reloaded*, Springer Berlin. 2015 (pp. 163-181). Springer, Cham.
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85. Nguyen T., Septier F., **Peters G.W.** and Delignon Y (2016) "Efficient Sequential Monte Carlo Samplers for Bayesian Inference." *IEEE Transactions on Signal Processing*. 2015 Nov 30;64(5):1305-19.

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89. Del Moral P., **Peters G.W.**, and Verge Ch. (2014) "An introduction to stochastic particle integration methods: with applications to risk and insurance." In *Monte Carlo and Quasi-Monte Carlo Methods 2012* 2013 (pp. 39-81). Springer, Berlin, Heidelberg.
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91. Hossack G.R., **Peters G.W.**, and Ludsin S.A. (2014) "Interspecific Relationships and Environmentally Driven Catchabilities Estimated from Fisheries Data." *Canadian Journal of Fisheries and Aquatic Sciences*. 2014;71(3):447-63.

92. Yan S., Malaney R., Nevat I. and **Peters G.W.**, (2014) "An Information Theoretic Location Verification Systems for Wireless Networks". IEEE Transactions on Vehicular Technology (VTC).
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94. S. Yan, R. Malaney, I. Nevat, **Peters G.W.** ``Optimal Theoretic Location Verification System for Wireless Networks", IEEE Transactions on Vehicular Technology. 2014 Jan 22;63(7):3410-22.
95. Nevat I., **Peters G.W.**, and Collings I. (2014) ``Distributed Detection in Sensor Networks over Fading Channels with Multiple Antennas at the Fusion Center". IEEE Transactions on Signal Processing. 2013 Dec 3;62(3):671-83.

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97. Korotsil I., **Peters G.W.** , Law M.G. and Regan D. (2013) "Herd immunity effect of HPV vaccination program in Australia under assumption of reduced susceptibility to re-infection following recovery.", Vaccine 31(15), 1931-1936.
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99. **Peters G.W.**, Targino R. and Shevchenko P. (2013) "Understanding Operational Risk Capital Approximations: First and Second Orders." Governance and Regulation, 2(3). [Invited Special Issue to coincide with 8th International conference "International Competition in Banking: Theory and Practice", Sumy, Ukraine, 2013.]
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