

CURRICULUM VITAE

Personal Details

Tomer Shushi
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Education

B.A. – 2009-2011 – Bar-Ilan University – Multidisciplinary degree in Economics and Computer Science, *Summa Cum Laude*.

M.A. – 2013-2015 – University of Haifa – Department of Statistics, *Dean Award for Academic Excellence*.

Ph.D. – 2013-2016 – University of Haifa, Research in Risk Management under the supervision of Prof. Zinoviy Landsman and Prof. Udi Makov.
Title of dissertation: Tail Risk Measures and Loss Distributions.

Employment History

2018-current Lecturer – Tenure track position. Department of Business Administration, Guilford Glazer Faculty of Business and Management. Ben-Gurion University of the Negev, Israel.

2018 Lecturer. The Department of Economics and Business Management, Faculty of Social Sciences and Humanities. Ariel University, Israel.

2016-2017 Postdoctoral fellow – Department of Physics, Ben-Gurion University of the Negev, Israel.

2013-2015 Research Assistant. Actuarial Research Center (ARC), University of Haifa, Israel.

2009-2011 Teaching Assistant and Research Assistant, Department of Economics, Western Galilee College, Israel.

Professional Activities

(a) Positions in academic administration

2020-current – Coordinator of the departmental website, Ben-Gurion University of the Negev.

2019-current – Head of the Actuarial Science and Risk Management program, Guilford Glazer Faculty of Business and Management. Ben-Gurion University of the Negev, Israel.

2019-current – Member of the Teaching Committee, Department of Business Administration, Ben-Gurion University of the Negev.

2018 – Coordinator of Econometrics Courses, Ariel University.

(b) Professional functions outside universities/institutions

2016-2017 – Vice-Chairman, **ILASOL** (Israel Society for Astrobiology and the Study of the Origin of Life).

(c) Ad-hoc reviewer for journals

International Statistical Review

Risks

Journal of Computational and Applied Mathematics

Statistics and Probability Letters

Math Reports

Journal of Sports Sciences

Journal of Risk and Financial Management

Entropy

Communications in Statistics - Theory and Methods

Symmetry

Safety

International Journal of Financial Studies

Quanta

Educational activities

(a) Courses taught

- Extreme Events in the Financial World – Graduate – Ben-Gurion University of the Negev.
- Financial and Actuarial Risk Management – Graduate – Ben-Gurion University of the Negev.
- Financial Risk Management – Undergraduate – Ben-Gurion University of the Negev.
- Data Analysis for Managers – Undergraduate – Ben-Gurion University of the Negev.

- Actuarial Mathematics – The Actuarial Science and Risk Management program – Ben-Gurion University of the Negev, Israel.
- Advanced Econometrics – Undergraduate – Ariel University, Israel.
- Advanced Statistics for Economists – Undergraduate – Ariel University, Israel.

(b) Research students

2019 – Ittai Barkai – M.B.A.

Ben Gurion University of the Negev. [Joint with Prof. Rami Yosef].

Membership in Professional Societies

Bernoulli Society for Mathematical Statistics and Probability

Operations Research Society of Israel (ORSIS)

Awards, Citations, Honors

2015 – University of Haifa, President's Scholarship of Excellence for Outstanding Students.

2013 – University of Haifa, Direct Ph.D program for Excellent Students.

2011 – Scholarship from the council for Higher Education, 2011.

2010 – Scholarship on excellence from Bar-Ilan university, 2010.

2010 – Scholarship from Kerliner Foundation.

2010 – Scholarship from Solly-Yellin Foundation.

2009 – Scholarship from the Jewish congregation.

Scientific Publications

Articles in scientific refereed journals

(When there is more than one author, author's names follow the rule of Alphabetic order)

In brackets (when available):

JR = Journal ranking according to the Australian Business Deans Council (ABDC) 2019 ranking.

1. Landsman, Z., Makov, U., & **Shushi, T.** (2016). Tail conditional moments for elliptical and log-elliptical distributions. *Insurance: Mathematics and Economics*, 71, 179-188. (JR=A*).
2. Landsman, Z., Makov, U., & **Shushi, T.** (2016). Multivariate tail conditional expectation for elliptical distributions. *Insurance: Mathematics and Economics*, 70, 216-223. (JR=A*).
3. Landsman, Z., Makov, U., & **Shushi, T.** (2016). Extended Generalized Skew-Elliptical Distributions and their Moments. *Sankhya A*, 1-25.
4. Landsman Z., Makov U., & **Shushi T.** (2016). A new class of distributions based on Hurwitz zeta function with applications for risk management. *The open Statistics and Probability Journal*, 7, 53-62.
5. Aharonov, Y., Cohen, E., & **Shushi, T.** (2016). Accommodating Retrocausality with Free Will. *Quanta*, 5, 53-60.
6. Elitzur, A., Cohen E., & **Shushi, T.** (2016). The Too-Late-Choice Experiment: Bell's Proof within a Setting where the Nonlocal Effect's Target is an Earlier Event. *International Journal of Quantum Foundations*, 2, 32-46. (*Names are not in the alphabetic order).
7. **Shushi, T.** (2016). A proof for the conjecture of characteristic function of the generalized skew-elliptical distributions. *Statistics & Probability Letters*, 119, 301-304. (JR=B).
8. **Shushi T.** (2017). Skew-elliptical distributions with applications in risk theory. *European Actuarial Journal*, 7, 1-20. (JR=B).
9. **Shushi T.** (2017). The generalized exponential family of distributions and its characteristics. *Communications in Statistics - Theory & Methods*. 1-7. (JR=B).
10. **Shushi T.** (2018). Stein's lemma for truncated elliptical random vectors. *Statistics & Probability Letters*, 137, 297-303. (JR=B).
11. **Shushi, T.** (2018). Randomness in modified General Relativity theory: The stochastic f(R) gravity model. *Canadian Journal of Physics*.
12. Aharonov, Y., Cohen, E., & **Shushi, T.** (2018). Is the Quilted Multiverse Consistent with a Thermodynamic Arrow of Time?. *Frontiers in Physics*, 6, 1-6.
13. **Shushi T.** (2018). Explicit formulas for the cumulants and the vector-valued odd moments of the multivariate linearly skewed elliptical distributions. *Communications in Statistics - Theory & Methods*. Accepted. (JR=B).
14. **Shushi, T.** (2018). Generalized skew-elliptical distributions are closed under affine transformations. *Statistics & Probability Letters*, 134, 1-4. (JR=B).

15. Landsman, Z, Makov, U., & **Shushi, T.** (2018). A Generalized Measure for the Optimal Portfolio Selection Problem and its Explicit Solution. *Risks*, **6**, 1-15. (JR=B).
16. **Shushi, T.** (2018). A proof for the existence of multivariate singular generalized skew-elliptical density functions. *Statistics and Probability Letters*. 50-55. (JR=B).
17. Landsman, Z., Makov, U., & **Shushi, T.** (2018). A Multivariate tail covariance measure for elliptical distributions. *Insurance: Mathematics and Economics*. 81, 27-35. (JR=A*).
18. **Shushi, T.** (2018). Towards a Topological Representation of Risks and Their Measures. *Risks*, **6**, 1-15. (JR=B).
19. **Shushi, T.** (2019). The Minkowski length of a spherical random vector. *Statistics & Probability Letters*. (JR=B).
20. **Shushi, T.** (2019). A note on the coefficients of elliptical random variables. *Statistics & Probability Letters*, 152, 153-155. (JR=B).
21. Landsman, Z., Makov, U., & **Shushi, T.** (2019). Analytic solution to the portfolio optimization problem in a mean-variance-skewness model. *The European Journal of Finance*, 1-14. (JR=A).
22. **Shushi, T.** (2019). Modeling the Esscher Premium Principle for a System of Elliptically Distributed Risks. *Proceedings of the 8th International Conference on Operations Research and Enterprise Systems*.
23. Adcock, C., Landsman, Z., & **Shushi, T.** (2019). Stein's Lemma for generalized skew-elliptical random vectors. *Communications in Statistics-Theory and Methods*, 1-16. (JR=B).
24. Landsman, Z., Makov, U., & **Shushi, T.** (2019). Portfolio Optimization by a Bivariate Functional of the Mean and Variance. *Journal of Optimization Theory and Applications*, 1-14. Accepted. (JR=A).
25. Bäuerle, N., & **Shushi, T.** (2020). Risk management with Tail Quasi-Linear Means. *Annals of Actuarial Science*, 14, 170-187. (JR=A).
26. **Shushi, T.** & Yao, J. (2020). Multivariate Risk Measures Based on Conditional Expectation and Systemic Risk for Exponential Dispersion Model. *Insurance: Mathematics and Economics*. (JR=A*).

Presentation of papers at conferences/meetings (oral or poster)

2020, The tail systemic risk measures for extreme loss events. Recent Developments in Dependence Modelling with Applications in Finance and Insurance. **Invited Speaker.** To be held in September 2020, Greece.

2020, A novel approach to measure systemic risks using multivariate tail moments: From theory to practice. Online International Conference in Actuarial science (OICA) 2020. Oral presentation.

2019, A novel approach to measure systemic risks using multivariate tail moments: From theory to practice. 12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019). United Kingdom. **Invited Speaker.**

2019, Analytic solutions to the portfolio optimization problems in a mean-variance skewness model. 23rd International Congress on Insurance: Mathematics and Economics (IME) in Munich. Oral presentation.

2019, Modeling the Esscher Premium Principle for a System of Elliptically Distributed Risks. 8th International Conference on Operations Research and Enterprise Systems (ICORES). Czech Republic. Oral presentation.

2019, An explicit analytic solution of a portfolio optimization. Operations Research Society of Israel (ORSIS) Annual Meeting. Israel. Oral presentation.

2018, The Optimal Portfolio Selection Problem by a General Mean-Variance Measure and its Solution. 10th Conference in Actuarial Science & Finance on Samos, Greece. Oral presentation.

2014, Tail Risk Measures of Skew-Elliptical Distributions. 8th Conference in Actuarial Science & Finance on Samos, Greece. Oral presentation.

Invited plenary lectures at conferences/meetings

2015, Tail risk measures for skew-elliptical distributions. Departmental Seminar. Department of Statistics, University of Haifa, Israel.

2016, Multivariate tail conditional expectations for elliptical distributions. Departmental Seminar. Faculty of Industrial and Management Engineering, Technion, Israel Institute of Technology, Israel.

2017, Explicit Solution of a Portfolio Optimization Problem by a general Bivariate Functional of the Mean and Variance. Departmental Seminar. Department of Economics, Bar-Ilan University, Israel.

2017, Explicit Solution of a Portfolio Optimization Problem by a general Bivariate Functional of the Mean and Variance. Departmental Seminar. Department of Economics and Business Management, Ariel University, Israel.

2018, The Optimal Portfolio Selection Problem by a General Mean-Variance Measure and its Solution. Finance Research Center seminar, Guilford Glazer Faculty of Business & Management, Ben-Gurion University of the Negev, Israel.

Participation in organizing conferences

2020 – (OWARS) One World Actuarial Research Seminar. **Scientific advisor.**

2017 – The Israel Society for Astrobiology and the Origin of Life, 30th annual meeting. **Organizer.**

2010 – Conference in Business Management at the Western Galilee College. **Organizer.**

Research Grants

2017-2020 – Israel Science Foundation (ISF). Tomer Shushi, Zinoviy Landsman, and Udi Makov. Multivariate Tail-based Measures for Systemic Risk.

ISF grant No. 1686/17.

Total amount: 200,866\$ (3 years).

2014 – Zimmerman Foundation for study of Banking and Finance. Tomer Shushi

The modified Sharpe ratio

Total amount: 1,160\$ (1 year).

Additional Information

2019 – Operations Research Society of Israel (ORSIS) Annual Meeting 2019, Israel. Session Chair.

2019 – International Conference on Operations Research and Enterprise Systems (ICORES). Session Chair.

2017 – The Galilee Research Center for Applied Mathematics, Israel. Active participation. The First Israeli Modelling Week.

2017 – Industrial day, MI-NET, Mathematics for Industry Network. Collaboration with researchers from Rafael - Advanced Defense Systems Ltd, Israel.

2016 – University of Waterloo, Canada. **Invited participant** (Fully Funded by the Perimeter Institute) “Concepts and Paradoxes in a Quantum Universe” conference.