

CURRICULUM VITAE

• **Personal Details**

Tomer Shushi
Department of Business Administration,
Guilford Glazer Faculty of Business and Management,
Ben-Gurion University of the Negev

• **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. Name of Advisors: Prof. Zinoviy Landsman and Udi Makov. Title of thesis: Tail Risk Measures and Loss Distributions.

• **Employment History**

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| 2018-current | Lecturer, Department of Business Administration, Guilford Glazer Faculty of Business and Management, Ben-Gurion University of the Negev. |
| 2018 | Lecturer, Department of Economics and Business Management, Faculty of Social Sciences and Humanities, Ariel University. |
| 2016-2017 | Postdoctoral researcher, Department of Physics, Ben-Gurion University of the Negev. |
| 2013-2015 | Research Assistant, Actuarial Research Center (ARC), University of Haifa. |
| 2009-2011 | Teaching Assistant and Research Assistant, Department of Economics, Western Galilee College. |

• **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.

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).

(e) Ad-hoc reviewer for journals

Insurance: Mathematics and Economics, International Statistical Review, Test, Risks, American Institute of Mathematical Sciences, 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.

Advanced Econometrics, Undergraduate – Ariel University.

Advanced Statistics for Economists, Undergraduate – Ariel University.

• **Awards, Citations, Honors**

(a) Honors, Citation Awards

2020, Faculty grant (To promote the submission of research proposals), Guilford Glazer Faculty of Business and Management. Ben-Gurion University of the Negev. Total amount: US\$1,160, 1 year.

2020, Article no. (17) in the section of scientific publications entered the list of most cited articles since 2017 in Insurance: Mathematics and Economics.

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

2015, University of Haifa, MA honors.

2010, Bar-Ilan university, BA honors.

• Scientific Publications

Articles in scientific refereed journals

1. Landsman^{PI}, Z., Makov^{PI}, U., & **Shushi^S, T.** (2016). Tail conditional moments for elliptical and log-elliptical distributions. *Insurance: Mathematics and Economics*, 71, 179-188.
2. Landsman^{PI}, Z., Makov, U^{PI}., & **Shushi^S, T.** (2016). Multivariate tail conditional expectation for elliptical distributions. *Insurance: Mathematics and Economics*, 70, 216-223.
3. Landsman^{PI}, Z., Makov^{PI}, U., & **Shushi^S, T.** (2016). Extended Generalized Skew-Elliptical Distributions and their Moments. *Sankhya A*, 1-25.
4. Landsman^{PI} Z., Makov^{PI} U., & **Shushi^S 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^{PI}, Y., Cohen^S, E., & **Shushi^C, T.** (2016). Accommodating Retrocausality with Free Will. *Quanta*, 5, 53-60.
6. Elitzur^{PI}, A., Cohen^{PI} E., & **Shushi^{PI}, 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.
7. **Shushi^{PI}, T.** (2016). A proof for the conjecture of characteristic function of the generalized skew-elliptical distributions. *Statistics & Probability Letters*, 119, 301-304.
8. **Shushi^{PI} T.** (2017). Skew-elliptical distributions with applications in risk theory. *European Actuarial Journal*, 7, 1-20.
9. **Shushi^{PI} T.** (2017). The generalized exponential family of distributions and its characteristics. *Communications in Statistics - Theory & Methods*. 1-7.
10. **Shushi^{PI} T.** (2018). Stein's lemma for truncated elliptical random vectors. *Statistics & Probability Letters*, 137, 297-303.
11. **Shushi^{PI}, T.** (2018). Randomness in modified General Relativity theory: The stochastic f(R) gravity model. *Canadian Journal of Physics*.

12. Aharonov^{PI}, Y., Cohen^{PI}, E., & **Shushi^{PI}, T.** (2018). Is the Quilted Multiverse Consistent with a Thermodynamic Arrow of Time?. *Frontiers in Physics*, **6**, 1-6.
13. **Shushi^{PI}, T.** (2019). Explicit formulas for the cumulants and the vector-valued odd moments of the multivariate linearly skewed elliptical distributions. *Communications in Statistics-Theory and Methods*, 48(12), 3085-3091.
14. **Shushi^{PI}, T.** (2018). Generalized skew-elliptical distributions are closed under affine transformations. *Statistics & Probability Letters*, **134**, 1-4.
15. Landsman^{PI}, Z., Makov^{PI}, U., & **Shushi^{PI}, T.** (2018). A Generalized Measure for the Optimal Portfolio Selection Problem and its Explicit Solution. *Risks*, **6**, 1-15.
16. **Shushi^{PI}, T.** (2018). A proof for the existence of multivariate singular generalized skew-elliptical density functions. *Statistics and Probability Letters*. 50-55.
17. Landsman^{PI}, Z., Makov^{PI}, U., & **Shushi^{PI}, T.** (2018). A Multivariate tail covariance measure for elliptical distributions. *Insurance: Mathematics and Economics*. 81, 27-35.
18. **Shushi^{PI}, T.** (2018). Towards a Topological Representation of Risks and Their Measures. *Risks*, **6**, 1-15. Invited paper.
19. **Shushi^{PI}, T.** (2019). The Minkowski length of a spherical random vector. *Statistics & Probability Letters*.
20. **Shushi^{PI}, T.** (2019). A note on the coefficients of elliptical random variables. *Statistics & Probability Letters*, 152, 153-155.
21. Landsman^{PI}, Z., Makov^{PI}, U., & **Shushi^{PI}, T.** (2019). Analytic solution to the portfolio optimization problem in a mean-variance-skewness model. *The European Journal of Finance*, 1-14.
22. Adcock^{PI}, C., Landsman^{PI}, Z., & **Shushi^{PI}, T.** (2019). Stein's Lemma for generalized skew-elliptical random vectors. *Communications in Statistics-Theory and Methods*, 1-16.
23. Landsman^{PI}, Z., Makov^{PI}, U., & **Shushi^{PI}, T.** (2019). Portfolio Optimization by a Bivariate Functional of the Mean and Variance. *Journal of Optimization Theory and Applications*, 1-14. Accepted.
24. Barkai^S I., **Shushi^{PI}, T.**, and Yosef^{PI} R. (2020). A Cryptocurrency Risk-Return Analysis for Bull and Bear Regimes. *The Journal of Alternative Investments*. Accepted.
25. Bäuerle^{PI}, N., & **Shushi^{PI}, T.** (2020). Risk management with Tail Quasi-Linear Means. *Annals of Actuarial Science*, 14, 170-187.

26.* **Shushi^{PI}, T.** & Yao^{PI}, J. (2020). Multivariate Risk Measures Based on Conditional Expectation and Systemic Risk for Exponential Dispersion Model. *Insurance: Mathematics and Economics*.

27.* Landsman^{PI} Z., **Shushi^{PI} T.** (2020). Modeling random vectors of dependent risks with different elliptical components. *Annals of Actuarial Science*. Accepted.

• **Lectures and Presentations at Meetings and invited Seminars**

1. 2019, A novel approach to measure systemic risks using multivariate tail moments: From theory to practice. 12th International Conference on Computational and Methodological Statistics (CMStatistics 2019), United Kingdom.

2. 2020, The tail systemic risk measures for extreme loss events. Recent Developments in Dependence Modelling with Applications in Finance and Insurance. Workshop organized by the finance and insurance research group of Vrije Universiteit Brussel. To be held in September 2021, Greece. (postponed due to the COVID-19 pandemic).

3. 2020, From multivariate to univariate: Projections of optimal portfolio selection problems. 13th International Conference on Computational and Methodological Statistics (CMStatistics 2020). United Kingdom.

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

1. Landsman Zinoviy, Udi Makov, Tomer Shushi, 2014, Tail Risk Measures of Skew-Elliptical Distributions. 8th Conference in Actuarial Science & Finance on Samos, Greece. Oral presentation. <http://www.actuar.aegean.gr/samos2014/confprogram.html>

2. Landsman Zinoviy, Udi Makov, Tomer Shushi, 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. <https://actuarweb.aegean.gr/samos2018/program/conference-program/>

3. Landsman Zinoviy, Udi Makov, Tomer Shushi, 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. <https://www.groups.ma.tum.de/mathfinance/ime-2019/program/contributed-speakers/>

4. Landsman Zinoviy, Udi Makov, Tomer Shushi, 2019, An explicit analytic solution of a portfolio optimization. Operations Research Society of Israel (ORSIS) Annual Meeting. Israel. Oral presentation. <https://orsis.net.technion.ac.il/files/2019/04/ORSIS-2019-program.pdf>

5. Tomer Shushi, 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. <http://www.icores.org/Home.aspx?y=2019>

6. Landsman Zinoviy, Udi Makov, Tomer Shushi, 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. <https://oica.univ-lyon1.fr/parallel-session-7/>

7. Landsman Zinoviy, Udi Makov, Tomer Shushi, 2020, Multivariate risk measures based on conditional tail moments for elliptical loss Distributions. Bernoulli-IMS One World Symposium 2020. Oral presentation. <https://www.worldsymposium2020.org/program/prerecorded-talks>

(d) Seminar presentations at universities and institutions

1. 2015, Department of Statistics, University of Haifa, Tail risk measures for skew-elliptical distributions.

2. 2016, Faculty of Industrial and Management Engineering, Technion, Israel Institute of Technology, Multivariate tail conditional expectations for elliptical distributions.

3. 2017, Department of Economics, Bar-Ilan University, Explicit Solution of a Portfolio Optimization Problem by a general Bivariate Functional of the Mean and Variance.

4. 2017, Department of Economics and Business Management, Ariel University, Explicit Solution of a Portfolio Optimization Problem by a general Bivariate Functional of the Mean and Variance.

5. 2018, Department of Business Administration, Ben-Gurion University of the Negev, The Optimal Portfolio Selection Problem by a General Mean-Variance Measure and its Solution.

• **Research Grants**

2014, Zimmerman Foundation for study of Banking and Finance, PI: Tomer Shushi, The modified Sharpe ratio, annual amount: US\$1,160, 1 year.

2017-2020, Israel Science Foundation (ISF), PIs: Tomer Shushi, Zinoviy Landsman, and Udi Makov, Multivariate Tail-based Measures for Systemic Risk, ISF grant No. 1686/17. annual amount: US\$200,866, 3 years.