

CURRICULUM VITA

Eliezer Zeev Prisman

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Research Interests:

The use of symbolic and numerical computation for methodological and commercial financial models, financial engineering, investment, tax effects in the derivative and fixed income markets, arbitrage models, market imperfections and arbitrage, Risk Management in Medicine. Historical Finance

Teaching:

FNEN 6810 Derivative Securities
FNEN 6210: Portfolio Managements
FINE 6100 : Cooperate Finance
FINE 3810: Fundamentals of Fixed Income Securities
PHD Level Courses: 700 level
FINE 3810 Derivative Securities

Publications:

Books:

"Lecture Notes in Fixed Income", World Scientific Publication, Forthcoming 2017

"Fundamentals of Fixed Income Securities: An Interactive e-book powered by Maple", eBook <http://www.mymathapps.com/>, 2015

"Essays in Portfolio Management: An Interactive e-book powered by Maple", Maple 2007, <http://www.mymathapps.com/2012>, 2013

"Introduction to Derivative Securities: An Interactive e-book, powered by Maple" An electronic book with collections of Graphic User Interfaces and library of functions for the pricing and valuation of derivative securities and related issues ", Maple 2006, 2010, <http://www.mymathapps.com/> 2012,2013,2015, 2016

"*DERIVATIVE SECURITIES*: An Interactive Dynamic Environment for Advanced Learning (**IDEAL**) powered by MAPLE V and MATLAB", *Academic Press* 2001.

Refereed Journal Publications

"Real Estate Transactions in Ancient Israel: Excavating Imbedded Options Utilizing Modern Finance", *Financial History Review*, 22, 1, 2015 pp 117-131

"Regulator's Determination of Return on Equity in the Absence of Public Firms: The Case of Automobile Insurance in Ontario", *Risk Management and Insurance Review*, 2, 2015, pp 1199-216, with (F. Lazar)

"Intraoperative Risk Management of Hyperparathyroidism: modeling and testing the evolution of parathyroid hormone's evolution as a mean reverting stochastic processes", with (Eitan Prisman and J. Freeman), *Operations Research for Health Care*, 3 (2014) pp. 7-14

"Valuing Historical Land Claims and Its Loss of Use" (with Fred Lazar), *Journal of Real Estate Literature* 21 no 2 (2013) pp 315-325

"Arbitrage Violations and Implied Valuations: The Option Market" *European Journal of Finance* (with I. Ioffe) , Vol. 19, no 3-14, 2013, pp. 298-327 .

A Dual Interpretation of the Case-Shiller Index and its Implications to Home Appraisal, *Journal of Real Estate Portfolio Management*, Vol. 18, No. 2, 2012, 205-217

"Constructing Historical Yield Curves from Very Sparse Spot Rates: A Methodology and Examples from the 1920s Canadian Market" *Journal of Business Valuation and Economic Loss Analysis* (with F. Lazar) Volume 7, Issue 1, pp. 1-22, 2012

"A Stochastic Approach to Risk Management for Prostate Cancer Patients on Active Surveillance", (with A. Gafni and T. Finelli), *Journal of Theoretical Biology*, 284 (2011)61–70.

"Testing the Evolution Process of Prostate-Specific Antigen in Early Stage Prostate Cancer: What is the Proper Underlying Model?", (with A. Gafni and T. Finelli) *Statistics in Medicine* 2011, 30 3038–3049.

"An Essay on Financial Innovations: the Case of Installment Receipts", (with N. Charupat), *Journal of Banking and Finance*, Vol. 28(1), January 2004, 129-156.

"Term Structure of Interest Rates and Implied Market Frictions: The Min-Max Approach", (with I. D. Ioffe), *Management Science*, Vol. 49(7), July 2003, 965-978.

"Managing the Risk of Relative Price Changes by Splitting Index Linked Bonds", (with A. Aziz and E. Katz), *Journal of Risk*, Vol. 3(4), Summer 2001.

"Non-Segmented Equilibria Under Differential Taxation: Evidence from the Canadian Bond Market", (with A. E. MacKay and Y. Tian), *European Finance Review* Vol. 4(3), 2000, 253-278.

"After-tax Term Structures of Real Interest Rates: Inferences from the U.K. Linked and Non-Linked Gilt Markets", (with A. Aziz), *Journal of Banking and Finance* Vol. 24(9), September 2000, 1433-1455.

"Hedging and Pricing with Tax Law Uncertainty: Managing Under an Arkansas Best Doctrine", (with M. A. Milevsky), *Quarterly Review of Finance and Economics*, Vol. 39(1), Spring 1999, 147-168.

"Corporate Investment, Dividend Decisions, Differential Taxation and the No-Arbitrage Condition", (with K. Ardalán), *Journal of Economics and Finance* Vol. 22(1), Spring 1998, 49-58.

"The No-Arbitrage Condition and Financial Markets with Heterogeneous Information: The Non-Competitive Case", (with K. Ardalán), *The International Journal of Finance*, Vol. 10, No. 2, 1998, 1058-1073.

"Financial Innovations and Arbitrage Pricing in Economies with Frictions: Revisited", (with N. Charupat), *Journal of Economic Theory*, Vol. 74(2), June 1997, 435-447.

"Tax Effects in Canadian Equity Option Markets", (with M. A. Milevsky), *Multinational Finance Journal*, Vol. 1(2), June 1997, 101-122.

"Tax Arbitrage in Government Bonds: A Suggested Methodology with Policy Implications", (with E. Katz), *Journal of Banking and Finance*, Vol. 21(8), August 1997, 1065-1083.

"On the Relative Importance of Duration Constraints", (with J. Paroush), *Management Science*, Vol. 43(2), February 1997, 198-205.

"Optimal Bond Trading and the Tax Timing Option in Canada", (with G. Roberts and Y. Tian), *Journal of Banking and Finance*, Vol. 20(8), September 1996, 1351-1363.

"Tests for Tax-Clientele and Tax-Option Effects in U.S. Treasury Bonds", (with J.V. Jordan and M. Ehrhardt), *Journal of Banking and Finance*, Vol. 19(6), September 1995, 1055-1072.

"Immunization in Markets with Tax Clientele Effects: Evidence from the Canadian Market", (with Y. Tian), *Journal of Financial and Quantitative Analysis*, Vol. 29(2), June 1994, 301-321.

"Duration Measures, Immunization and Utility Maximization", (with Y. Tian), *Journal of Banking and Finance*, Vol. 17(4), June 1993, 689-707.

"No Arbitrage and Valuation in Markets with Realistic Transaction Costs", (with J.C. Dermody), *Journal of Financial and Quantitative Analysis*, Vol. 28(1), March 1993, 65-80.

"A Duality Approach to MinMax Results for Quasi-Saddle Function in Finite Dimensions", (with U. Passy), *Mathematical Programming*, 55, 1992, 82-98.

"Arbitrage, Clientele Effects, and the Term Structure of Interest Rates", (with E. Katz), *Journal of Financial and Quantitative Analysis*, Vol. 26(4), December 1991, 435-443.

"A Unified Approach to Term Structure Estimation: A Methodology for Estimating the Term Structure in Markets with Frictions", *Journal of Financial and Quantitative Analysis*, Vol. 25(1), March 1990, 127-142.

"Bond Pricing in Markets with Taxes: The tax-clientele model vs. the non-clientele model", *Journal of Banking and Finance*, Vol. 14(1), March 1990, 33-39.

"Term Structure Multiplicity and Clientele in Markets with Transaction Costs and Taxes", (with J.C. Dermody), *Journal of Finance*, Vol. 43(4), September 1988, 893-911.

"The Monday Effect and Speculative Opportunities in the Stock - Index Futures Market", (with D. Piepeta), *Advances in Futures and Options Research*, 3, 1988, 319-328.

"Duration Measures for Specific Term Structure Estimations and Applications to Bond Portfolio Immunization", (with M. Shores), *Journal of Banking and Finance*, Vol. 12(3), September 1988, 493-504.

"A General Model of the Banking Firm under Conditions of Monopoly, Uncertainty and Recourse", (with M. B. Slovin and M. E. Sushka), *Journal of Monetary Economics*, Vol. 17(2), March 1986, 293-304.

"Immunization as a MaxMin Strategy: A New Look", *Journal of Banking and Finance*, Vol. 10, December 1986, 491-510.

"Valuation of Risky Assets in Arbitrage-Free Economies with Frictions", *Journal of Finance*, Vol. 41(3), July 1986, 545-560.

"Apex Duality for Constrained Optimization", (with R.J. Duffin and D.J. Karney), *Journal of the Australian Mathematical Society*, (Series B), 28, 1986, 134-146.

"A Convex-like Duality Scheme for Quasi-Convex Programs", (with U. Passy), *Mathematical Programming*, 32, 1985, 278-299.

"Secant Relations vs. Positive Definiteness for Quasi-Newton Methods", (with U. Passy), *Journal of Optimization Theory and Applications*, 44, 1984, 681-687.

"On Quasi-Convex Functions and their Conjugates", (with U. Passy), *Mathematical Programming*, 30, 1984, 121-146.

Other Refereed Publications:

"Optional Taxes", (with M.A. Milvesky), September 1997, *Risk Magazine*.

"Hedging and Pricing with Tax Law Uncertainty: Managing Under an Arkansas Best Doctrine", (with M.A. Milvesky) Proceedings of the Chicago Board of Trade Research Symposium. Chicago, December 1997.

"Tax-Adjusted Pricing Algorithms for Derivative Securities Using a Symbolic Computational Language", (with M. A. Milevsky), *Proceedings of the Conference On Computational Intelligence for Financial Engineering*, 1997.

"Is There a Tax-Induced January Effect in the Canadian Equity Options Market?" (with M. A. Milevsky), *Proceedings of the Fifth Annual Derivative Securities Conference*, Johnson Graduate School of Management, Cornell University, April 1995.

"Option Prices Implicit in Callable Bonds: A Study of the Israeli Market," (with J. Itzikovitz and A. E. MacKay), *The Banking Review*, 1995.

"Using Index Linked Bonds to Model Real Interest Rates and to Detect Inflation Risk Premiums: The Canadian Case," (with A. Aziz), 1994, *Proceedings of the Actuarial Approach for Financial Risks International Colloquium*.

Working Papers:

"Utilizing Duality Theory to Determine Statistical Significance of Set Separation: Calibrating Growth Markers in Geometric Brownian Processes" with (Eitan Prisman),

"Intraoperative Risk Management of Hyperparathyroidism: A Clinical Implementation", with (Eitan Prisman and S. Wiseman),

Works in Progress:

Categorizing Mutual funds using Machine Learning Techniques (with D. Coming).

Valuing Historical Claims of Land's Loss of Use over a Finite Period (with F. aLzar)

Stochastic Approaches to Assessing Risks by Sequence of Biomarkers' Levels with (Eitan Prisman, A. Gafni, J. Johnston L. Goldenberg).

Stochastic Approaches to Assessing Risks by Sequence of Biomarkers' Levels utilizing Machine Learning Methods" with (Eitan Prisman J. Johnston L. Goldenberg and M. Leshno) .

Conference Presentations:

"Stochastic Approaches to Assessing Risks by Sequence of Biomarkers' Levels", Asaf Harofe , Israel, 2016.

Real Estate Transactions in Ancient Israel: Excavating Imbedded Options Utilizing Modern Finance", Hebrew University, Israel, 2015

Teaching "Fixed Income Fundamentals" in an interactive hands-on environment
Research Center for Innovation Technology Open University Israel, 2015

Teaching "Derivative Securities " in an interactive hands-on environment
Research Center for Innovation Technology Open University Israel, 2014

Intraoperative Risk Management of **Hyperparathyroidism**: modeling and testing the evolution of the parathyroid hormone's evolution as a mean reverting stochastic processes, with Eitan Prisman and Jermy Frieman, ORSI, May 2012

A Dual Interpretation of the Case-Shiller Index and Its Implications to Home Appraisals, European Financial Management, Barcelonan June 2012

A Dual Interpretation of the Case-Shiller Index and its Implications to Home Appraisal, Holon Institute of Technology, Israel 2011

“An interactive Dynamic and Friendly Environment Powered by maple for Financial engineering” The 8th annual MEITAL Conferee (the open university , Israel 2010)

"Pitfalls in Constructing Historical Yield Curves: The Canadian Market in the 1920s" (with Fred Lazar) (Moansh University 2009)

" *Fundamentals of Fixed Income Securities*: An Interactive e-book powered by Maple, E-learning, Melbourne December 2007

"Derivative Securities: An Interactive, Dynamic Environment "Thee- book conference" , Spain, November 2007

"Real Estate Transactions in Ancient Israel: Excavating Imbedded Options Utilizing Modern Finance ", Bar-Ilan University, Israel 2006

"Implied Valuation and Arbitrage Violation", (with I. D. Ioffe), The Fields Institute Toronto, 2004.

"Pricing Derivative Securities: An Interactive, Dynamic Environment with Matlab" SFU, 2003.

"Implied Valuation Operators and Friction Functions in the Debt Market: The MinMax approach", (with I. D. Ioffe), BFS Greece June 2002, FMA October 2002.

"An Essay on Financial Innovations: the Case of Installment Receipts", (with N. Charupat), 2002 APFA/PACAP Finance Conference July 14 - 17, 2002 Keio Plaza Hotel, Tokyo, Japan.

"An Essay on Financial Innovations: the Case of Installment Receipts", (with N. Charupat), 2002 FMA European Conference June 5 - 8, 2002 Copenhagen, Denmark.

"Implied Valuation Operators Friction Functions and Negative Option Pricing", (with I. D. Ioffe) The Finance and Banking Australian Society, Sydney December 2001.

"Pricing Derivative Securities: An Interactive, Dynamic Environment with Maple V and Matlab" University of Melbourne, 2000.

"Feasibility and Attainability of Non-Segmented Equilibria Under Differential Taxation: Evidence from the Canadian Government Bond Market" (with Alexandra MacKay and Yisong Tian) NFA, 2000.

"Term Structure Estimation: The Implied Norm Approach Negative Option Prices - A Puzzle or Just Noise?" Fields Institute - Seminar on Financial Mathematics, (with A. E. Mackay) Toronto, 1999.

"Hedging and Pricing with Tax Uncertainty: Managing Under an Arkansas Best Doctrine", (with M. A. Milevsky), *Chicago Board of Trade Research Symposium*, Chicago IL, December 1997.

"From Utility Maximization to Arbitrage Pricing, and Back", (with A. E. Mackay), *IFAC/SCE/IFIP/IFORS/ Society for Computational and Economics Symposium on Computation in Economics, Finance and Engineering: Economic Systems*, Cambridge, England, June 1998.

"Tax-Adjusted Pricing Algorithms for Derivative Securities Using a Symbolic Computational Language", (with M. A. Milevsky), *Conference on Computational Intelligence for Financial Engineering*, 1997.

"Hedging and Pricing with Tax Uncertainty: Managing Under an Arkansas Best Doctrine", (with M. A. Milevsky), *Financial Management Association*, New Orleans, October 1996.

"Selecting a Valuation Operator via the Entropy Criterion: There is an Economic Interpretation After All", (with A. E. Mackay), *SIAM 5th Optimization Conference*, Victoria British Columbia, May 1996.

"Valuation Operators in Incomplete Markets: The Puzzle of Pricing Callable Bonds", (with A. E. MacKay), *American Finance Association*, San Francisco, California, January 1996.

"Valuation Operators in Incomplete Markets: The Puzzle of Pricing Callable Bonds", (with A. E. MacKay), *The Fields Institute*, Toronto, Ontario, September 1995.

"Optimal Bond Trading and the Tax Timing Option: The Canadian Income Tax Environment", (with G. Roberts and Y. Tian), *Northern Finance Association*, London, Ontario, September 1995.

"The Estimation of Valuation Operators (SDF) in an Incomplete Market with Noises", (with A. E. MacKay), *Northern Finance Association*, London, Ontario, September 1995.

"Is There a Tax-Induced January Effect in The Canadian Option Market", (with M.A. Milevsky), *Northern Finance Association*, London, Ontario, September 1995.

"On the Feasibility and Attainability of Non-segmented Equilibrium", (with Y. Tian), *European Finance Association 21st Annual Conference*, Brussels, August 1994.

"Using Index-linked Bonds to Model Real Interest Rates and to Detect Inflation Risk Premiums: The Canadian Case", (with Andrew R. Aziz), *Actuarial Approach for Financial Risks International Colloquium*, Orlando, Florida, 1994.

"On the Feasibility and Attainability of Non-segmented Equilibrium", *Financial Management Association*, Toronto, Ontario, October 1993.

"Duration Measure, Immunization and Utility Maximization," (with Y. Tian), *Financial Management Association*, San Francisco, California, October 1992.

"Immunization in Markets with Tax-clientele Effects: Evidence from the Canadian Market", (with Y. Tian), *Northern Finance Association Meeting*, Toronto, Ontario, September 1992.

"Taxation, the Term Structure of Interest Rates and the Pattern of Bond Payments", (with E. Katz), *Financial Management Association*, Chicago, Illinois, October 1991.

"Tests for Tax-clientele and Tax-option Effects in U.S. Treasury Bonds: A New Interpretation", (with J.V. Jordan and M. Ehrhardt), *American Finance Association*, Atlanta, Georgia, January 1989.

"On No-Arbitrage Conditions in Markets with Non-Linear Transaction Costs," (with J.C. Dermody), *American Finance Association*, Atlanta, Georgia, January 1989.

"Clientele Effects, Arbitrage and Term Structure Estimation", (with E. Katz), *Financial Management Association*, Boston, Massachusetts, October 1989.

"Tests for Tax-clientele and Tax-option Effects in U.S. Treasury Bonds: A New Interpretation", ORS/TIM *meeting*, Atlanta, Georgia, 1985.

"Immunization as a MaxMin Strategy: A New Look", *American Finance Association*, Dallas, Texas, January 1984.

"Saddle Function and MinMax Problem: the Quasi-Convex Quasi-Concave Case", *'Optimization Days'*, Montreal, Quebec, 1984.

"A Stochastic Model of Consumption: Theory and Evidence", (with M. Slovin), *Econometric Society*, San Francisco, 1983.

"A General Model of the Banking Firm under Conditions of Monopoly, Uncertainty, and Recourse", (with M. Slovin and M. Suska), *Financial Management Association*, Atlanta, 1983.

"Duality in Quasi-Convex Programming", ORSA/TIMS *meeting*, Orlando, 1983.

"On Quasi-Convex Functions and Their Conjugates", *'Optimization Days'*, Montreal, 1983.