

## **Stathis Tompaidis**

McCombs School of Business, Information, Risk and Operations Management Department  
University of Texas at Austin, Austin, TX 78712-1175  
512-471-5252, Stathis.Tompaidis@mcombs.utexas.edu

### **Appointments**

Chair, IROM department, McCombs School of Business, UT-Austin, 2019-

Capitol City Savings Regents Professor, 2020-

Jack S. Josey Professorship in Energy Studies Fellow, McCombs School of Business, UT-Austin 2018-2020

Associate Director, Financial Markets, Office of Financial Research, 2015-2017

Acting Associate Director, Financial Institutions and Risk Management, Office of Financial Research, 2015-2017

William R. Spriegel Centennial Fellow, McCombs School of Business, UT-Austin, 2014-2018

Professor, IROM department, McCombs School of Business, UT-Austin, 2014-

Professor (by courtesy), Finance department, McCombs School of Business, UT-Austin, 2014-

Associate Professor, IROM department, McCombs School of Business, UT-Austin, 2006-2014

Assistant Professor, IROM department, McCombs School of Business, UT-Austin, 1999-2006

Lecturer, IROM department, McCombs School of Business, UT-Austin, 1997-1999

Postdoctoral Fellow, Mathematics Department, University of Toronto, 1996-1997

Postdoctoral Fellow at Institut de Recherche Mathématique de Rennes, 1995-1996

Postdoctoral Fellow, Mathematics Department, University of Toronto, 1994-1995

Scientific Director of RiskLab-Toronto, 1996-1997

Visiting Scholar, Northwestern University, IEMS department, Fall 2012

Visiting Scholar, Columbia Business School, Fall 2007

Visiting Scholar, Fuqua School of Business, Duke University, Fall 2007

Visiting Professor, Instituto Tecnológico Autónomo de México, 2003-2004

### **Education**

University of Texas at Austin, Ph.D., Physics, 1994

Aristotle's University, Thessaloniki, Greece, B.Sc., Physics, 1989

### **Research Awards**

Research Excellence Award for Assistant Professors, McCombs School of Business, UT-Austin, 2004

### **Teaching Awards**

Honor roll – full-time MBA students, Spring 2007

Honor roll – MBA students in Dallas, Fall 2006

Honor roll – full-time MBA students, Fall 2005

### **Grants**

European Central Bank – European Systemic Risk Board, EMIR Bridge Programme for Data Science on the topic “The role of big data in informing macroprudential policies and risk management practice.” Project title “Central Clearing – Central Counterparties,” PI, 2019.

Real Estate Research Institute, “Determinants of Credit Spreads in Commercial Mortgages,” 2002, with Sheridan Titman and Sergey Tsyplakov

Real Estate Research Institute, “Pricing Commercial Mortgages,” 2001, with Sheridan Titman and Sergey Tsyplakov

National Science Foundation, co-PI, “Analysis and Simulation of Strategic Behavior and Price Processes in Transmission Constrained Electricity Markets,” 2000-2002, with Ross Baldick (PI) and Marty Baughman (co-PI)

SciComp Inc., “Efficient Numerical Methods for Derivative Pricing,” 1999, with Patrick Jaillet

Lower Colorado River Authority, “Risk Management in the Gas and Power Markets,” 1997, with Patrick Jaillet

Bank of Nova Scotia, “Estimation of Credit Risk for Interest-Rate Derivatives,” 1997, with Luis Seco

Bank of Nova Scotia, “Risk Management of Bermudan Swaption Portfolios,” 1997, with Luis Seco

### **Patents**

“Effect of Idle Time for Pricing Lease Contracts and Lease Contract Options,” with Christopher M. Kenyon, WO 2000043937 A3, priority date January 21, 1999, filing date January 11, 2000, publication date, April 12, 2001.

### **Courses Taught**

Statistics and Modeling (undergraduate)

Statistics and Modeling for Finance (undergraduate)

Real Options (undergraduate)

Crises and Regulations (undergraduate)

Statistics (MBA, MSF)

Business Analytics and Decision Making (MBA)  
Case Studies in Financial Engineering (MBA)  
Futures and Options (MBA)  
Financial Modeling and Optimization (MBA)  
Modeling and Analysis of Energy Projects: Exploration, Production, and Financing, (MBA)  
Computational Finance (undergraduate, MBA, MSF, PhD)  
Mathematics in Finance (PhD)

### **Doctoral students supervised (advisor or co-advisor)**

Rohit Arora, in progress.

Vishwakant Malladi, “Dependence in Operations: Modeling and Applications,” 2018, joint supervisor with Kumar Muthuraman. First position: Assistant Professor, Indian School of Business.

Chunyu Yang, “Functional Approximation Methods for Solving Stochastic Control Problems in Finance,” 2010. First position: Morgan Stanley. Current position: Associate Professor of Finance, BI School of Management, Oslo, Norway.

### **Department, School, and University Service**

Chair, IROM department, UT Austin, 2019-

*As the chair of the department I head the department’s executive committee; provide input to the College and the University in promotion and post-tenure review cases; head recruiting efforts; assign on-load and off-load teaching duties for all tenure track and non-tenure track faculty; supervise offerings of traditional face-to-face courses, as well as synchronous and asynchronous online courses; supervise the undergraduate majors and minors in Management Information Systems, and Supply Chain Operations Management and the minor in Risk Management; and supervise the MSc programs in Business Analytics and Information Technology Management. My main priority is to introduce a new undergraduate major in Business Analytics with input from the department, the College, and the University.*

Graduate Education Task Force, UT Austin, 2019

*The Graduate Education Task Force is a University-wide committee with the goal of improving graduate education across the University. As a member of the task force, I helped analyze data and prepare a report providing recommendations to all departments.*

Graduate Advisor, IROM department, 2017-2019

*As the graduate advisor, I headed the Graduate Studies Committee, reviewed the PhD program offerings and requirements, coordinated admissions of PhD students, nominated students for fellowships and monitored student progress and placements. To help improve recruitment, I introduced an annual department open house to attract new PhD students.*

Dean's Faculty Advisory Committee, 2013-2014

*As a member of the committee, I provided feedback to the Dean regarding various schools initiatives.*

IROM Executive Committee member, 2009-2011, 2017-2019

*As a member of the executive committee, I participated in merit reviews, and promotion and hiring decisions. I also provided feedback to the department chair regarding various departmental initiatives.*

Undergraduate Programs Committee member, McCombs School of Business, 2010-2011, 2017-2019

*As a member of the committee, I helped review proposed changes to the undergraduate program – in particular the introduction of a new quantitative, core, curriculum for all undergraduate business students.*

### **Other Service – Office of Financial Research**

*Between June 2015-May 2017 (24 months), I was on detail at the Office of Financial Research, a federal agency in Washington D.C. I was the Associate Director for Financial Markets and the acting Associate Director for Financial Institutions and Risk Management. I was the head of a team of 20 researchers with PhDs in economics, finance, mathematics, statistics, engineering, and computer science, conducting research in various topics in Financial Stability, including Central Clearing, Asset Management, Stress Testing, Networks, etc. In addition, my responsibilities included supervising and mentoring all team members, and representing the agency nationally (at the Financial Stability and Oversight Council) and internationally (at the Over-the-Counter-Derivatives Regulatory Forum).*

### **Professional Activities**

IISE Transactions, Operations Engineering & Analytics, Associate Editor, Financial Engineering, 2020 –

Management Science, Associate Editor, Finance, 2018 –

Co-chair of National Science Foundation Panel on BIGDATA applications to systemic risk, co-sponsored by the National Science Foundation and the Office of Financial Research, 2015, 2016

Co-organizer with Kumar Muthuraman, “2nd Texas Quantitative Finance Festival,” Austin, October 25-26, 2013.

Guest Editor, Special issue on Computational Methods, International Journal of Theoretical and Applied Finance, volume 14, number 3, May 2011

Cluster co-chair, “Quantitative Finance,” 12 sessions, with Kumar Muthuraman, 2011 Annual INFORMS meeting.

Cluster chair, “Quantitative Finance,” 12 sessions, 2010 Annual INFORMS meeting

Co-organizer with Kumar Muthuraman, “Texas Quantitative Finance Festival,” Austin, November 6, 2010.

Co-organizer with Luis Seco, Workshop on “Mathematical Physicists in Finance and Industry,” Centre de Recherches Mathematiques, Montreal, June 12-17, 2000.

Co-organizer with Stamatis Dostoglou, Meeting on “Mathematical and Computational Finance,” Columbia, Missouri, May 19-21, 2000.

Organizer, Workshop on “Mathematical and Computational Finance,” Austin, Texas, October 7-8, 1999.

## Papers (by topic)

### Quantitative Finance and Risk Management

1. Kenyon, C., Tompaidis, S., "Real Options in Leasing: the Effect of Idle Time," *Operations Research*, vol. 49 (5), 675-689, (2001)
2. Manoliu, M., Tompaidis, S., "Energy Futures Prices: Term Structure Models with Kalman Filter Estimation," *Applied Mathematical Finance*, vol. 9 (1), 21-43, (2002)
3. Titman, S., Tompaidis, S., Tsyplakov, S., "Market Imperfections, Investment Flexibility and Default Spreads," *Journal of Finance*, vol. 59, (1), 165-205, (2004)
4. Jaillet, P., Ronn, E.I., Tompaidis, S., "Valuation of Commodity Based Swing Options," *Management Science*, vol. 50, (7), 909-921, (2004)
5. Titman, S., Tompaidis, S., Tsyplakov, S., "Determinants of Credit Spreads in Commercial Mortgages," *Real Estate Economics*, vol. 33, (4), 711-738 (2005)
6. Baldick, R., Kolos, S., Tompaidis, S., "Interruptible Electricity Contracts from an Electricity Retailer's Point of View: Valuation and Optimal Interruption," *Operations Research*, vol. 54 (4), 627-642, (2006)
7. Gallmeyer, M., Kaniel, R., Tompaidis, S., "Tax Management Strategies with Multiple Risky Assets," *Journal of Financial Economics*, vol. 80, (2), 243-291, (2006)
8. Kaniel, R., Tompaidis, S., Zemlianov, A. "Efficient Computation of Hedging Parameters for Discretely Exercisable Options," *Operations Research*, vol. 56 (4), 811-826, (2008)
9. Albanese, C., Tompaidis, S., "Small Transaction Cost Asymptotics and Dynamic Hedging," *European Journal of Operational Research*, vol. 185, 1404-1414, (2008)
10. Ronn, E.I., Sayrak, A., Tompaidis, S., "The Impact of Large Changes in Asset Prices on Intra-Market Correlations in the Domestic and International Markets," *Financial Review*, vol. 44 (3), 405-436, (2009)
11. Albanese C., Lo, H., Tompaidis, S., "A Numerical Method for Pricing Electricity Derivatives Based on Continuous Time Lattices," *European Journal of Operational Research*, vol. 222, 361-368, (2012)
12. Roche H., Tompaidis, S., and Yang, C., "Why Does Junior Put All His Eggs In One Basket? A Potential Rational Explanation for Holding Concentrated Portfolios," *Journal of Financial Economics*, vol. 109, 775-796, (2013)
13. Tompaidis, S., Yang, C., "Pricing American-Style Options by Monte Carlo Simulation: Alternatives to Ordinary Least Squares," *Journal of Computational Finance*, vol. 18, 121-143, (2014)
14. Ehling, P., Gallmeyer, M., Srivastava, S., Tompaidis, S., and Yang, C. "Portfolio Choice with Capital Gain Taxation and the Limited Use of Losses," *Management Science*, vol. 64 (9), 3971-4470 (2018)
15. Tompaidis, S., "Measuring System-wide Resilience of Central Counterparties," *Journal of Financial Market Infrastructures*, vol. 6 (4), 41-54, (2018)

16. Baklanova, V., Dalton, O., Tompaidis, S., “Benefits and Risks of Central Clearing in the Repo Market,” *Journal of Financial Market Infrastructures*, vol. 7 (1), 1-14, (2018)
17. Kaniel, R., Tompaidis, S., and Zhou, T. “Impact of Managerial Commitment on Risk Taking with Dynamic Fund Flows,” *Management Science*, vol. 65(7), 3174-3195. (2019)
18. Malladi, V., Mendoza-Arriaga, R., Tompaidis, S., “Modeling Dependent Outages for Electric Power Plants,” *Operations Research*, vol. 68(1), 1-15.
19. Mitchell, D., Bialkowski, J., Tompaidis, S., “Volume Weighted Average Price Tracking: A Theoretical and Empirical Study,” *IIE Transactions*, vol. 52(8), 864-889.

*Preprints*

20. Arora R., Gao R., Tompaidis S., “Extreme yet Plausible: Choosing Scenarios to Stress Test Financial Institutions”, preprint.
21. Ghoddusi H., Titman S., Tompaidis S., “Hedging Commodity Risk in a Supply Chain,” preprint.
22. Mitchell D., Tompaidis S., “Managing Risk in Financial Networks,” preprint.
23. Monin P., Pritsker M., Tompaidis S., “Measuring Risks in Hedge Funds: Evaluation and Usefulness of Exposure Data in Form PF,” preprint.
24. Paddrik M., Tompaidis S., “Intermediation Networks and Market Liquidity: Evidence from CDS Markets,” preprint.
25. Ehling P., Yang C., Tompaidis S., “Tax Collection from Realized Capital Gains on Equity,” preprint.
26. Kim, D., Tompaidis, S., Wermers, R., “The Role of Market Intermediaries in Cross-Market Spillovers,” preprint.
27. Yang, C., Tompaidis, S., “An Iterative Simulation Approach for Solving Stochastic Control Problems in Finance,” preprint.

**Dynamical Systems**

28. de la Llave, R., Tompaidis, S., “Computation of Domains of Analyticity for Some Perturbative Expansions from Mechanics,” *Physica D*, vol. 71, 55-81, (1994)
29. de la Llave, R., Tompaidis, S., “Nature of Singularities for Analyticity Domains of Invariant Curves,” *Physical Review Letters* vol. 73, 1459-1463, (1994)
30. de la Llave, R., Tompaidis, S., “On the Singularity Structure of Invariant Curves of Symplectic Mappings,” *Chaos*, vol. 5, 227-237, (1995)
31. Elipe, A., Hietarinta, J., Tompaidis, S., “Comments on a paper by S. Kasperczuk (Integrability of the Yang-Mills Hamiltonian System: Celestial Mechanics and Dynamical Astronomy, 58, 387-391),” *Celestial Mechanics and Dynamical Astronomy*, vol. 62, 191-192, (1995)
32. Tompaidis, S., “Approximation of Invariant Surfaces by Periodic Orbits in High-dimensional Maps. Some Rigorous Results,” *Experimental Mathematics*, vol. 5, 197-209, (1996)
33. Tompaidis, S., “Numerical Study of Invariant Sets of a Quasi-periodic Perturbation of a Symplectic Map,” *Experimental Mathematics*, vol. 5, 211-230, (1996)

## **Refereed Conference Proceedings**

34. Bountis, T., Tompaidis, S., “Strong and Weak Instabilities in 4D Mapping Models of Accelerator Dynamics,” in *Nonlinear Problems in Future Particle Accelerators*, ed. by G. Turchetti and W. Scandale, World Scientific (1991)
35. Tompaidis, S., “Approximation of Invariant Surfaces by Periodic Orbits in High-dimensional Maps,” in *Hamiltonian Systems with Three or More Degrees of Freedom (S'Agaro 1995)*, ed. Charles Simo editor, NATO Adv. Sci. Inst. Ser. C Math. Phys. Sci., 533, Kluwer Acad. Publ., Dordrecht, (1999)
36. Kenyon, C., Tompaidis, S., “Real Options in Leasing Semi-Submersible Rigs in the North Sea,” *Computational Intelligence in Financial Engineering conference proceedings*, (1999)

## **Other**

37. Jaillet, P., Ronn, E.I., Tompaidis, S. “Swing Options: The quest for valuation,” *Energy & Power Risk Management*, pages 14-16, (June 1998)
38. Jaillet, P., Ronn, E.I., Tompaidis, S. “Swing Options: A ruthless business,” *Energy & Power Risk Management*, pages 28-29, (July 1998)
39. Tompaidis, S., “Book review: *Computational Methods for Option Pricing*,” *Quantitative Finance*, vol. 6 (4), 279-280, (2006)
40. Tompaidis, S., “Energy Brief on the Austin Energy rate review process,” report on the recommended electricity rate increase proposed by Austin Energy, posted on the McCombs Energy Insights blog by Sheridan Titman, (March 2012)
41. Baklanova, V., Dalton. O., Tompaidis, S., “Benefits and Risks of Central Clearing in the Repo Market,” Office of Financial Research Brief No. 17-04, March 9, 2017
42. Tompaidis, S., “Measuring System-wide Resilience of Central Counterparties,” Office of Financial Research Brief No. 17-03, February 22, 2017