

# Oleksii Mostovyi

Professor (effective August 23, 2026)

Department of Mathematics, University of Connecticut  
Affiliate appointment with the Department of Statistics

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## ACADEMIC EMPLOYMENT

**University of Connecticut**, Department of Mathematics  
*Professor* (effective August 23, 2026).

*Affiliate appointment* with the Department of Statistics.

*Associate Professor* (with tenure, early tenure), August 2020 – August 2026.

*Assistant Professor*, August 2015 – August 2020.

*Research Scientist*, July 2015 – August 2015.

**University of Texas at Austin**, Department of Mathematics

*Instructor and NSF Postdoc*, August 2012 – July 2015.

## VISITING POSITIONS

**University of Oxford**, Mathematical Institute, Summer 2022.

**University of Texas at Austin**, Department of Mathematics, Fall 2021 (sabbatical leave from the University of Connecticut).

## EDUCATION

**Carnegie Mellon University**

Ph.D. in Mathematical Sciences, 2012.

**New York University**

M.S. in Mathematics, 2004.

**Moscow Institute of Physics and Technology**

B.S. in Applied Physics and Mathematics, 2000.

## RESEARCH INTERESTS

Mathematical Finance and Applied Probability.

## PUBLICATIONS AND PREPRINTS

- **8 published papers are single-authored**

X. Ma and O. Mostovyi (2026) *Duality for Optimal Stopping in Continuous Time*,  
<https://www2.math.uconn.edu/~mostovyi/dualOS.pdf>; preprint, 20 pages.

P. Ernst and O. Mostovyi (2026) *The Value of Partial Jump Information*,  
<https://www2.math.uconn.edu/~mostovyi/sigInfo.pdf>; **accepted in Mathematics of Operations**

**Research**, 22 pages.

O. Mostovyi (2025) *An Approach to the Greeks for Indifference Pricing*, <https://www2.math.uconn.edu/~mostovyi/iGreeks.pdf>; preprint, 51 pages.

F. Baudoin and O. Mostovyi (2025) *The Indifference Value of the Weak Information*, <https://www2.math.uconn.edu/~mostovyi/iInf.pdf>; preprint, 29 pages.

O. Mostovyi and P. Siorpaes (2025) *Pricing of Contingent Claims in Large Markets*, <https://www2.math.uconn.edu/~mostovyi/lmPr.pdf>, **Finance and Stochastics**, 29(1): 177-217.

J. Freitas, J. Huang, and O. Mostovyi (2025) *Representation of Indifference Prices on a Finite Probability Space*, <https://www2.math.uconn.edu/~mostovyi/ipRep.pdf>, **Involve**, 18(3): 495-516.

This paper is part of an REU project conducted under my supervision.

O. Mostovyi and M. Sîrbu (2024) *Quadratic Expansions in Optimal Investment with Respect to Perturbations of the Semimartingale Model*, <https://www2.math.uconn.edu/~mostovyi/pertSem.pdf>, **Finance and Stochastics**, 28(2): 553-613.

M. Monoyios and O. Mostovyi (2024) *Stability of the Epstein-Zin Problem*, arXiv:2208.09895 [q-fin.MF], <https://www2.math.uconn.edu/~mostovyi/ezStab.pdf> **Mathematical Finance**, 34(4): 1263-1290.

O. Mostovyi, M. Sîrbu, and T. Zariphopoulou (2024) *On the Analyticity of the Value Function in Optimal Investment*, <https://www2.math.uconn.edu/~mostovyi/analyticsity.pdf>, **Pure and Applied Functional Analysis: Special Issue "Control, Systems Theory and Related Topics Dedicated to the memory of Professor Wendell H. Fleming,"** 9(3): 825-862.

O. Mostovyi and A. Teplyaev (2024) *On Perturbations of Preferences and Indifference Price Invariance*, <https://www2.math.uconn.edu/~mostovyi/indStab.pdf>, preprint, 38 pages.

J. Koerner, J.S. Lee, and O. Mostovyi (2024) *The Information Premium on a Finite Probability Space*, <https://www2.math.uconn.edu/~mostovyi/infPrem.pdf>, **Missouri Journal of Mathematical Sciences**, 36(1): 68–88.

This paper is part of an REU project conducted under my supervision.

O. Mostovyi and P. Siorpaes (2023) *Differentiation of Measures on an Arbitrary Measurable Space*, <https://www2.math.uconn.edu/~mostovyi/difMeas.pdf>, **Journal of Mathematical Analysis and Applications**, published online, 25 pages.

W. Busching, D. Hintz, O. Mostovyi, and A. Pozdnyakov (2022) *Fair Pricing and Hedging Under Small Perturbations of the Numéraire on a Finite Probability Space*, arXiv:2208.09898 [q-fin.PR], **Involve**, 15(4): 649–668.

This paper is part of an REU project conducted under my supervision.

O. Mostovyi (2021) *Stability of the Indirect Utility Process*, arXiv:2002.09445 [math.PR], **SIAM Journal on Financial Mathematics**, 12(2): 641–671.

O. Mostovyi and M. Sîrbu (2020) *Optimal Investment and Consumption with Labor Income in Incomplete Markets*, arXiv:1806.05901 [math.PR], **Annals of Applied Probability**, 30(2): 747-787.

O. Mostovyi (2020) *Asymptotic Analysis of the Expected Utility Maximization Problem with Respect to*

*Perturbations of the Numéraire*, arXiv:1805.11427 [math.PR],  
**Stochastic Processes and their Applications**, 130(7): 4444–4469.

S. Boese, T. Cui, S. Johnston, G. Molino, and O. Mostovyi (2020) *Stability and Asymptotic Analysis of the Föllmer-Schweizer Decomposition on a Finite Probability Space*, arXiv:2002.03286 [q-fin.MF],  
**Involve**, 13(4): 607–623.

This paper is part of an REU project conducted under my supervision.

O. Mostovyi and M. Sîrbu (2019) *Sensitivity Analysis of the Utility Maximization Problem with Respect to Model Perturbations*, arXiv:1705.08291 [q-fin.PM],  
**Finance and Stochastics**, 23(3): 595-640.

O. Mostovyi (2018) *Utility Maximization in a Large Market*, arXiv:1403.6175 [q-fin.PM],  
**Mathematical Finance**, 28(1): 106-118.

K. Larsen, O. Mostovyi, and G. Žitković (2018) *An Expansion in the Model Space in the Context of Utility Maximization*, arXiv:1410.0946 [q-fin.PM],  
**Finance and Stochastics**, 22(2): 297-326.

O. Mostovyi (2018) *Optimal Consumption of Multiple Goods in Incomplete Markets*, arXiv:1705.02291 [q-fin.MF],  
**Journal of Applied Probability**, 55(3): 810-822.

H. Chau, A. Cosso, C. Fontana, and O. Mostovyi (2017) *Optimal Investment with Intermediate Consumption under No Unbounded Profit with Bounded Risk*, arXiv:1509.01672 [q-fin.PM],  
**Journal of Applied Probability**, 54(3): 710-719.

O. Mostovyi (2017) *Optimal Investment with Intermediate Consumption and Random Endowment*, arXiv:1110.2573v2 [q-fin.PM],  
**Mathematical Finance**, 27(1): 96-114.

O. Mostovyi (2015) *Necessary and Sufficient Conditions in the Problem of Optimal Investment with Intermediate Consumption*, arXiv:1107.5852v3 [q-fin.PM],  
**Finance and Stochastics**, 19(1): 135-159.

O. Mostovyi, O. Prokopyev, and O. Shylo (2013) *On Maximum Speedup Ratio of Restart Algorithms Portfolios*,  
**INFORMS Journal on Computing**, 25(2): 222-229.

O. Mostovyi (2013) *On the Stability of the Least Squares Monte Carlo*,  
**Optimization Letters**, 7(2): 259-265.

O. Mostovyi (2005) *Signal Processing under Active Monitoring*,  
**Information Theories and Applications**, 12: 49-56.

#### Scholarly writing from service activities

(2018) *Open-Source Undergraduate Probability Textbook*, University of Connecticut,  
<https://probability.oer.math.uconn.edu/wp-content/uploads/sites/2187/2020/03/OERprobability2020.pdf>  
(co-writers: probability group at the University of Connecticut).

#### NSF AWARDS

O. Mostovyi “*CAREER: An Approach to Pricing, Hedging, Stability, and Asymptotic Analysis in Financial Markets.*” National Science Foundation, DMS-1848339, 2019 – 2025.

I. Ben Ari, F. Baudoin, Z. Li, O. Mostovyi *“Research Workshops, UCONN Special Semester in Probability.”* National Science Foundation, DMS-1823060, 2018.

O. Mostovyi *“Utility Based Pricing and Hedging in Incomplete Markets with Stochastic Preferences in a Unifying Framework of Admissibility.”* National Science Foundation, DMS-1600307, 2015 – 2019.

## **CONFERENCE/SEMINAR PRESENTATIONS, INVITED TALKS**

International Conference “Stochastic Analysis, Statistics of Random Processes and Optimization,” Tbilisi - Bakuriani, Georgia, December 2026.

(online) Mathematical Finance Seminar, Texas Tech University, October 2026.

Mathematics for the Real World Conference, University of Southern Denmark, Odense, Denmark, August 2026.

The 39th New England Statistical Society Symposium (NESS), Storrs, May 2026.

AMS Joint Mathematics Meetings, Washington, DC, January 2026.

SIAM Conference on Financial Mathematics and Engineering, Miami, July 2025.

Paris Bachelier Seminar, Henri Poincaré Institute, Paris, June 2025.

The 38th New England Statistics Symposium, New Haven, June 2025.

AMS Eastern Sectional Meeting, Hartford, April 2025.

Mathematical Finance Seminar, University of Pittsburgh, February 2025.

Quantitative Methods in Finance Conference, University of Technology Sydney, December 2024.

International Conference devoted to the 90th anniversary of Academician Albert Shiryaev “Stochastic Analysis, Statistics of Random Processes and Optimisation,” Tbilisi – Bakuriani, Georgia, December 2024.

Financial Mathematics Seminar, Worcester Polytechnic Institute, December 2024.

12th World Congress of the Bachelier Finance Society, School of Applied Mathematics at FGV, Rio de Janeiro, July 2024.

The 37th New England Statistics Symposium, University of Connecticut, Storrs, May 2024.

Macroeconomics Seminar, University of Connecticut, April 2024.

Financial/Actuarial Mathematics Seminar, University of Michigan, Ann Arbor, February 2024.

Mathematical Finance Seminar, University of Miami, December 2023.

Brown Bag Seminar, Finance Department, Boston University, November 2023.

2023 Fall Eastern Sectional Meeting at the University at Buffalo (SUNY), September 2023.

26th International Congress on Insurance: Mathematics and Economics, Heriot-Watt University, Edinburgh, July 2023.

The 36th New England Statistics Symposium, Boston University, June 2023.

Workshop on Financial Mathematics and Stochastic Analysis, Illinois Institute of Technology, Chicago, May 2023.

Finance and Stochastics Seminar, Imperial College London, March 2023.

Analysis and Probability Seminar, University of Connecticut, February 2023.

2023 AMS Joint Mathematics Meetings, Boston, January 2023.

SIGMA Seminar, Mathematics Department, University of Connecticut, October 2022.

(online) Stochastic Control with Application to Finance at SIAM Annual Meeting, Convention Center, Pittsburgh, July 2022.

The 35th New England Statistics Symposium, University of Connecticut, Storrs, May 2022.

Workshop on Stochastic Hybrid Systems, University of Connecticut, November 2021.

The 34th New England Statistics Symposium, University of Rhode Island, Providence Campus, October 2021.

(online) SIGMA Seminar, Mathematics Department, University of Connecticut, June 2021.

(online) SIAM Conference on Financial Mathematics and Engineering, June 2021.

(online) 2021 AMS Joint Mathematics Meetings, January 2021.

(online) SIAM/CAIMS Annual Meeting, Toronto, July 2020.

(postponed due to COVID) Actuarial and Financial Mathematics Seminar, UQAM, Montreal, March 2020.

Stamford Financial Technology Meetup, Stamford, CT, February 2020.

Colloquium, Department of Mathematics, UCLA, January 2020.

Canadian Mathematical Society Winter Meeting, Toronto, December 2019.

Colloquium, Department of Mathematics, University of Miami, December 2019.

Mathematical Finance Seminar, Dublin City University, November 2019.

Mathematical and Computational Finance Seminar, Oxford University, November 2019.

4th Eastern Conference on Mathematical Finance, Boston University, October 2019.

Mathematical Finance and Stochastic Analysis Seminar, Illinois Institute of Technology, September 2019.

SIAM Conference on Financial Mathematics and Engineering, University of Toronto, June 2019.

The 33rd New England Statistics Symposium, University of Connecticut, Hartford, May 2019.

Joint Risk & Stochastics and Financial Mathematics Seminar, London School of Economics, March 2019.

London Mathematical Finance Seminar, Imperial College London, March 2019.

Financial/Actuarial Mathematics Seminar, University of Michigan, Ann Arbor, February 2019.

Quantitative Finance Workshop, ETH Zurich, January 2019.

AMS Joint Mathematics Meeting, Baltimore, MD, January 2019.

Probability and Mathematical Finance Seminar, Carnegie Mellon University, January 2019.

Quantitative Methods in Finance Conference, University of Technology Sydney, December 2018.

10th World Congress of the Bachelier Finance Society, Dublin, July 2018.

Mathematical Finance Seminar, Paris Diderot University, June 2018.

Paris Bachelier Seminar, Henri Poincaré Institute, June 2018.

AMS Joint Mathematics Meetings, San Diego, CA, January 2018.

Stochastics Seminar, University of Colorado Boulder, October 2017.

The International Conference on Computational Finance 2017, ISEG - Lisbon School of Economics and Management, September 2017.

Mathematical Finance and Probability Seminar, Rutgers University, April 2017.

The 31st New England Statistics Symposium, University of Connecticut, April 2017.

Mathematical Finance and Applied Probability Seminar, University of Connecticut, April 2017.

Mathematical Finance and Applied Probability Seminar, University of Connecticut, April 2017.

Mathematical Finance and Applied Probability Seminar, University of Connecticut, March 2017.

SIAM Conference on Financial Mathematics, Austin, TX, November 2016.

Probability Seminar, University of Minnesota, Minneapolis, MN, October 2016.

AMS Sectional Meeting at Bowdoin College, Brunswick, ME, September 2016.

Stochastic Processes Seminar, Institute of Mathematics, Kyiv, Ukraine, August 2016.

9th World Congress of the Bachelier Finance Society, New York, NY, July 2016.

Minisymposium in Financial Mathematics at the 2016 SIAM Annual Meeting, Boston, MA, July 2016.

Sixth IMS-FIPS Workshop, University of Alberta, Edmonton, Canada, July 2016.

Colloquium, Hong Kong Polytechnic University, May 2016.

Mathematical Finance / Applied Probability Seminar, the University of Texas at Austin, January 2016.

Stochastic Analysis and Financial Mathematics Seminar, Worcester Polytechnic Institute, November 2015.

Fifth International IMS-FIPS Workshop, Rutgers University, June 2015.

Poster Presentation at "Methods of Mathematical Finance, a conference in honor of Steve Shreve," Carnegie Mellon University, June 2015.

Conference on Mathematical Finance and Partial Differential Equations at Rutgers University, May 2015.

Mathematics Colloquium, University of Connecticut, March 2015.

SIAM Conference on Financial Mathematics & Engineering, Chicago, November 2014.

Conference on Mathematical Finance and Partial Differential Equations at Rutgers University, November 2013.

Mathematical Finance / Applied Probability seminar, the University of Texas at Austin, October 2013.

Frontiers in Financial Mathematics, Dublin, Ireland, June 2013.

The Fifth Western Conference on Mathematical Finance, Stanford University, May 2013.

Mathematical Finance Seminar, the University of Texas at Austin, October 2012.

7th Oxford-Princeton Workshop on Financial Mathematics and Stochastic Analysis, Princeton University, April 2012.

Computational Finance Seminar, University of Pittsburgh, April, 2012.

ORIE Colloquium, Cornell University, February 2012.

Mathematical Finance and Probability Seminar, Rutgers University, January 2012.

Mathematical Finance Seminar, the University of Texas at Austin, November 2011.  
 INFORMS Annual Meeting, Charlotte, NC, November 2011.  
 INFORMS Annual Meeting, Charlotte, NC, November 2011.  
 Conference on Mathematical Finance and Partial Differential Equations at Rutgers University, November 2011.  
 Center for Computational Finance Seminar, Carnegie Mellon University, September 2011.  
 Institute of Applied System Analysis, Kyiv, Ukraine, August 2011.  
 Conference “Stochastic Analysis in Finance and Insurance,” University of Michigan, May 2011.  
 Center for Computational Finance Seminar, Carnegie Mellon University, February 2011.  
 3rd Yalta Optimization Conference “Network Science,” Yalta, Ukraine, August 2010.  
 Center for Computational Finance Seminar, Carnegie Mellon University, November 2007.

## CORE ACADEMIC SERVICES

- **Member of the Steering Committee** of the Eastern Conference in Mathematical Finance (ECMF) (since November 2025).
- **Editorial board:** Associate Editor for Stochastics (since June 2025).
- **One of the core/instrumental developers of the Mathematical Finance Group** at the Mathematics Department of the University of Connecticut (as one of the 11 core research groups within the department on par with Applied Mathematics, for example).
- **Supervisor of the REU projects on mathematical finance** at the Mathematics Department at the University of Connecticut, Summer 2019 – Summer 2021, Summer 2023. **Past REU advisees are accepted in Ph.D. programs in Princeton University (mathematics), UC Berkeley (IEOR), NC State (statistics), and SUNY at Buffalo (Industrial Engineering).**
- **External peer-review tenure letter writer**, 2023.
- **Co-organizer** of the Mathematics Department Colloquium, University of Connecticut, Fall 2016 – Spring 2018.
- **Associate Graduate Director** of the Masters’ Program in Applied Financial Mathematics, University of Connecticut, Spring 2017 – Fall 2019.
- **Co-organizer** of the seminar series “Special Semester in Actuarial and Financial Mathematics,” University of Connecticut, Fall 2016. The list of speakers includes Ioannis Karatzas, Dmitry Kramkov, Robert C. Merton, and Steven E. Shreve.
- **Co-organizer** of the seminar series “Special Semester in Probability,” University of Connecticut, Fall 2018. The list of speakers includes Srinivasa Varadhan, Ofer Zeitouni, Elizabeth Meckes, Van Vu, Walter Schachermayer, Rodrigo Banuelos, David Nualart, Kavita Ramanan, and Rene Carmona.
- **Organizer** of the Workshop on Mathematical Finance, University of Connecticut, Fall 2018. The list of the speakers includes Christa Cuchiero, Paolo Guasoni, Jan Kallsen, Martin Larsson, Johannes Muhle-Karbe, Sergio Pulido, Scott Robertson, Mihai Sîrbu, and Hao Xing.
- **Open source textbook in probability co-author**, 2018, <https://probability.oer.math.uconn.edu/3160-oer/>
- **Ph.D. dissertation committee member**
  - Hongjiang Qian (advisor: George Yin), University of Connecticut, July 2023,

- Geoff Lindsell (advisor: Fabrice Baudoin), University of Connecticut, August 2022,
- Berend Coster (advisor: Fabrice Baudoin), University of Connecticut, June 2019.

## STUDENT SUPERVISION

### Ph.D. Student Advisees at the University of Connecticut

- Rahul Krishnakumar (current student);
- Oleksandr Pavlenko, graduation: August 2022.

### Masters' Student Advisee at the University of Connecticut

- Alexander Furey, graduation: May 2024.

### REU Advisees

- 2023: Jason Freitas (University of Connecticut), *next position: Ph.D. program in industrial engineering at SUNY at Buffalo;*  
Joshua Huang (Tufts University);
- 2021: William Busching (Bowdoin College),  
Delphine Hintz (Bethany Lutheran College),  
Alexey Pozdnyakov (University of Connecticut), *next position: Ph.D. program in mathematics at Princeton University that is ranked 1st among graduate programs in mathematics;*
- 2020: Jake Koerner (Rochester Institute of Technology), *next position: Ph.D. program in statistics at North Carolina State University that is ranked 11th among graduate programs in statistics;*  
Joo Seung Lee (Northwestern University), *next position: IEOR Ph.D. program at the University of California, Berkeley, that is ranked 3rd among graduate programs in industrial engineering;*
- 2019: Sarah Boese (Vassar College),  
Tracy Cui (Carnegie Mellon University),  
Samuel Johnston (Willamette University).

### Undergraduate Honors Program Advisees

- 2025: Kishan Angadi, *next position: MS in ECE at Carnegie Mellon University,*  
Catherine Murphy,  
Dhruv Nimmagadda,
- 2024: Isha Adlani,
- 2023: Sahib Sandhu,
- 2022: Maya Perdomo,
- 2021: Thomas McGrath,
- 2020: Zarmeen Hasan.

### Undergraduate Thesis Advisees

- 2022-2023: Jackson Hebner, *next position: Ph.D. program in mathematics at the University of Oxford (UK),*
- 2022-2023: Meera Neelati.

## ACADEMIC SERVICES (THE REMAINING ONES)

- **Referee for** *Finance and Stochastics, Mathematical Finance, Frontiers of Mathematical Finance, SIAM Journal on Financial Mathematics, Applied Mathematical Finance, International Journal of Theoretical and Applied Finance, Mathematics and Financial Economics, Journal of Optimization Theory and Applications, Annals of Applied Probability, SIAM Journal on Control and Optimization, Mathematics of Operations Research, Omega - International Journal of Management Science, Electronic Journal of*

*Probability, Stochastic Processes and their Applications, Journal of Applied Probability, Bulletin des Sciences Mathématiques, Communications on Stochastic Analysis, Theory of Stochastic Processes, Methodology and Computing in Applied Probability, Statistics and Probability Letters, Applied Mathematics and Optimization, Journal of Dynamical and Control Systems, Bulletin of Economic Research, Mathematical Reviews/MathSciNet, Journal of Global Optimization, Operations Research Letters, AMMCS-CAIMS Congress Proceedings, AIMS Mathematics.*

- **Advances in Mathematical Finance Session organizer** at the 39th New England Statistical Society Symposium (NESS), Storrs, May 2026.
- **Information Asymmetry and Related Topics in Financial Mathematics Minisymposium organizer** at the SIAM Conference on Financial Mathematics and Engineering, Miami, FL, July 2025.
- **Frontiers of Mathematical Finance Session organizer** at the 38th New England Statistical Society Symposium (NESS), New Haven, June 2025.
- **Frontiers of Mathematical Finance Session co-organizer** at the AMS Eastern Sectional Meeting, Hartford, CT, April 2025.
- **Frontiers in Financial Mathematics Session organizer** at the 37th New England Statistical Society Symposium (NESS), University of Connecticut, Storrs, May 2024.
- **Judge for NESS 2024 Student Poster Awards** at the 37th New England Statistics Symposium, University of Connecticut, Storrs, May 2024.
- **Quantitative Competency Subcommittee member**, University of Connecticut, 2023-present.
- **Mathematical Finance Session organizer** at the 36th New England Statistical Society Symposium (NESS), Boston University, June 2023.
- **Frontiers in Mathematical Finance Session organizer** at the 35th New England Statistical Society Symposium (NESS), University of Connecticut, Storrs, May 2022.
- **Advances in Mathematical Finance Session organizer** at the 34th New England Statistics Symposium (NESS), University of Rhode Island, Providence Campus, September – October 2021.
- **Asymptotic Methods in Portfolio Optimization Session organizer** at SIAM/CAIMS Annual Meeting, Toronto, July 2020 (online).
- **Mathematical Finance Session organizer** at the 33rd New England Statistics Symposium (NESS), University of Connecticut, Hartford, May 2019.
- **IBM Student Paper committee member** at the 33rd New England Statistics Symposium, University of Connecticut, Hartford, May 2019.
- **The Neumann Award committee member** (the Neumann award is given annually to a Ph.D. student with the best dissertation in the mathematics department), University of Connecticut, Spring 2019.
- **Mathematical Finance Session co-organizer** at the AMS Sectional Meeting at the University of Connecticut, Hartford, April 2019.
- **Research paper discussant** at Quantitative Finance Workshop, ETH Zurich, January 2019.
- **Organizer** of the Mathematical Finance and Applied Probability Seminar, University of Connecticut, Spring 2017 – present.
- **Co-organizer** of the Probability and Analysis Seminar, University of Connecticut, Fall 2016 – Spring 2018.
- **Mini-symposium organizer** at SIAM Conference on Financial Mathematics, Austin, TX, November 17-19, 2016.
- **Selection committee member** for Bernard Sippin '52 scholarship, University of Connecticut, Spring

2016 and Spring 2017.

- **Session organizer** at Sixth IMS-FIPS Workshop at the University of Alberta, Edmonton, Canada, July 7-9, 2016.
- **Research paper discussant** at 2016 Eastern Conference on Mathematical Finance, Worcester Polytechnic Institute, Worcester, MA.

## TEACHING

### At the University of Connecticut:

- Received two Letters of Teaching Excellence from the Provost's Office. These letters are based on teaching (master's level) **Fundamentals of Financial Mathematics**, (Ph.D.-level) **Probability Theory and Stochastic Processes I**, and (master's level) **Advanced Financial Mathematics**.
  - **Fundamentals of Financial Mathematics** and **Advanced Financial Mathematics** are the central courses in the Masters' Program in Applied Financial Mathematics at the University of Connecticut.
  - **Probability Theory and Stochastic Processes I** is the core/prelim course in the mathematics Ph.D. program at the University of Connecticut.
1. *Yield Curve Models* (master's course): Spring 2024, **redesigned and taught this course**.
  2. *Stochastic Analysis and Financial Applications* (Ph.D. course): Fall 2023, **designed and taught this course**.
  3. *Probability Theory and Stochastic Processes II* (Ph.D. course): Spring 2023.
  4. *Elementary Stochastic Processes* (undergraduate course): Spring 2020 – Spring 2021.
  5. *Advanced Financial Mathematics* (master's course): Spring 2016 – Spring 2019, Spring 2022, Spring 2025; **restructured this course to make it a smoother continuation of the Fundamentals of Financial Mathematics**.
  6. *Probability Theory and Stochastic Processes I* (Ph.D. course): Fall 2017, Fall 2018, Fall 2025.
  7. *Fundamentals of Financial Mathematics* (master's course): Fall 2016 – Fall 2020, **designed (and taught) this course**.
  8. *Probability* (undergraduate course): Fall 2015, Spring 2016, Spring 2022 – Fall 2026, **co-authored the open-source textbook for this course**.

### At the University of Texas at Austin:

1. *Integral Calculus*: Spring 2015,
2. *Differential and Integral Calculus*: Fall 2014,
3. *Matrices and Matrix Calculations*: Spring 2013 and Spring 2014,
4. *Probability*: Fall 2012 and Fall 2013.

### As an instructor at Carnegie Mellon University:

1. *Matrix Algebra*: Summer 2010,
2. *Calculus in Three Dimensions*: Summer 2009,
3. *Differential Equations*: Summer 2008.

### As an assistant at Carnegie Mellon University:

1. Taught the following core courses in the Masters in Computational Finance Program (MSCF) simultaneously in New York and Pittsburgh campuses by means of remote teaching:
  - (a) *Financial Computing IV* (Master's level course at MSCF program),

- (b) *Financial Computing with C++* (Master's level course at MSCF program),
  - (c) *Multi-Period Asset Pricing* (Master's level course at MSCF program).
2. Taught multiple standard undergraduate courses in mathematics.

**Invited short courses at summer schools:**

1. *Optimal Investment in Incomplete Markets*.  
Prepared for summer school "Achievements and Applications of Contemporary Informatics, Mathematics, and Physics," Summer 2013, Kyiv Polytechnic Institute, Kyiv, Ukraine.
2. *Several Fundamental Problems of Mathematical Finance*.  
Prepared for summer school "Achievements and Applications of Contemporary Informatics, Mathematics, and Physics," Summer 2014, Kyiv Polytechnic Institute, Kyiv, Ukraine.

## SHORT-TERM RESEARCH VISITS

- Department of Mathematics, Imperial College London, March 7 - March 12, 2023.
- Department of Mathematics, Imperial College London, November 20 – November 26, 2022.
- Department of Mathematics, Université d'Évry-Val-d'Essonne, May 30 – June 8, 2018.
- Department of Applied Mathematics, Hong Kong Polytechnic University, May 11 – 21, 2016.
- Department of Mathematics, The University of Texas at Austin, January 10 – 17, 2016.

## NON-ACADEMIC EMPLOYMENT

- **Bank of America Securities**, New York  
*Associate with MBS Analytics Team*, 2005 – 2006.
- **BNP Paribas**, New York  
*Intern with Fixed Income Strategies and Research Team*, 2004 – 2005.
- **PNN** (now PNN Soft), Kyiv, Ukraine  
*Developer*, 2001 – 2002.

## PROFESSIONAL SOCIETY MEMBERSHIPS

- American Mathematical Society (AMS),
- Society for Industrial and Applied Mathematics (SIAM),
- International Association for Quantitative Finance (IAQF),
- New England Statistical Society (NESS),
- Bachelier Finance Society (BFS).