

Curriculum Vitae

OLYMPIA HADJILIADIS

Associate Professor,
Department of Mathematics,
Brooklyn College of CUNY,
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Status: US Citizen, Canadian Citizen, Greek citizen

Languages: English, French, Greek, Spanish.

EDUCATION

Feb. 2005 PH.D. (with Distinction), Columbia University, Department of Statistics (Advisor: Jan Vecer).
May 2003 M.PHIL., Columbia University, Department of Statistics.
Feb. 1999 M.Math. (Statistics-Finance), University of Waterloo, Centre for Advanced Studies in Finance.
May 1997 B.Sc. (with High Distinction), University of Toronto, New College, Statistics and Actuarial Science.

EXPERIENCE

09/2013 - 06/2014 Visiting Scholar, University of California at Santa Barbara,
Department of Statistics, Santa Barbara CA.
01/2010 - Present Associate Professor (effective tenure date 09/2011),
Brooklyn College of the City University of New York,
Department of Mathematics, Brooklyn, NY.
09/2007 - 12/2009 Assistant Professor, Brooklyn College of the City University of New York,
Department of Mathematics, Brooklyn, NY.
04/2008 - Present Member of the Doctoral Faculty, Graduate Center of the City University
of New York, Department of Computer Science, New York, NY.
06/2009 - Present Member of the Doctoral Faculty, Graduate Center of the City University
of New York, Department of Mathematics, New York, NY.
09/2006 - 08/2007 Assistant Professor, Drexel University, Department of Mathematics,
Philadelphia PA.
09/2006 - 08/2007 Associate Research Scholar, Princeton University,
Department of Electrical Engineering, Princeton, NJ (Dean H. V. Poor supervisor).
09/2005 - 08/2006 Postdoctoral Research Associate, Princeton University,
Department of Electrical Engineering, Princeton, NJ (Dean H. V. Poor supervisor).
01/2005 - 08/2005 Postdoctoral Fellow, Columbia University, Department of Statistics, New York, NY.
03/1999 - 09/1999 Associate Financial Engineer, Algorithmics Inc.,
Applied risk management research team, Toronto, Canada.
05/1998 - 08/1998 Summer Intern, Financial Analyst, Citibank, Global Derivatives, Toronto, Canada.

RESEARCH INTERESTS

My research interests are in the broad areas of statistical surveillance and sequential detection. In particular, I am interested in quickest detection of abrupt changes as applied to finance, signal processing, decentralized detection, and computer vision. I am interested in the study of drawdowns in finance and in real-time detection and classification of scenes in vision. I am also interested in the analysis of big data using techniques of quickest detection.

HONORS AND AWARDS

2011	Best Presentation Award for the presentation on "Insurance against market crashes" at INFORMS Annual Meeting, Charlotte NC (November 13-16). Session on financial services.
2010	NSA-MSP-Probability-Young Investigator's Award.
2000	Offered NSERC (Natural Science and Engineering Research Council of Canada) Graduate Scholarship (PGS-B), University of Toronto.
1999 - 2000	Ontario Graduate Scholarship (OGS), University of Toronto.
1997 - 1998	NSERC (Natural Science and Engineering Research Council of Canada) Graduate Scholarship (PGS-A), University of Waterloo.
1997 -1998	Centre for Advanced Studies in Finance Scholarship, University of Waterloo.
1997	Offered Ontario Graduate Scholarship (OGS), University of Waterloo.
1997	Graduated with highest GPA in Mathematical and Physical Science, New College, University of Toronto.
1997	Donald G. Ivey Graduation Award in Mathematics and Physical Sciences, University of Toronto.
1997	Student Leadership Award, University of Toronto.
1997	Scholarship for Academic Excellence and Involvement in the Greek Community, Hellenic Canadian Foundation of Ontario.
1996	Samuel Beatty In-Course Scholarship, University of Toronto.
1996 - 1997	New College Council In-Course Scholarship, University of Toronto.
1995 - 1997	Dean's Honor List, University of Toronto.

EXTERNAL RESEARCH GRANTS

- 2009 - 2013 *MSC Sequential Classification and Detection via Markov Models in Point Clouds of Urban Scenes*, NSF-CCF # 0916452, PI: I. Stamos, **Co-PI**: O. Hadjiliadis, \$380,000.
- 2009 - 2011 *Sequential Detection and Classification in 3D Computer Vision*, NSF-DMS-IGMS # 0929317, **PI**: O. Hadjiliadis, \$100,000.
- 2010 - 2012 *Quickest detection in correlated multi-sensor systems*, NSA-MSP-Probability-Young Investigator's program # 081103, **PI**: O. Hadjiliadis, \$30,000
- 2012 - 2015 *ATD: Sequential quickest detection and identification of multiple co-dependent epidemic outbreaks*, NSF-DMS #1222526, **PI**: O. Hadjiliadis, Co-PI: M. Ludkovski, \$490,781. Brooklyn College portion \$278,154.
- 2015 Mathematical research community in Financial Mathematics, Snowbird UT (June 13-20). Mathematical Research Council \$80,000-\$100,000. Team: Stephan Sturm, Maxim Bichuch, Birgit Rudloff, Michael Carlisle.
- 2015-2018 *Collaborative: Online detection and low-rank discovery*, NSF-DMS #1521516, **PI**: O. Hadjiliadis, Co-PI: Y. Feng, Co-PI: I. Stamos, \$500,000 (submitted 12/09/2014).
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INTERNAL RESEARCH GRANTS

- 2014 *Gradual Change detection for object classification in 3D Computer Vision*, CUNY Collaborative, \$30,000, 1 year, O. Hadjiliadis (**PI**), I. Stamos (co-PI).
- 2012 - 2013 *Joint quickest detection and sequential identification*, PSC_CUNY-Traditional B, \$6,000.
- 2010 - 2011 *Distributional properties of the minimum of two CUSUMs*, \$3,325.
- 2009 - 2010 *Sequential classification in multi-sensor systems*, PSC-CUNY, \$2,960.
- 2008 - 2009 *Multi-dimensional quickest detection*, CUNY Collaborative, \$38,000 O. Hadjiliadis (**PI**), T. Schaefer (co-PI).
- 2008 - 2009 *Quickest detection in multi-source systems*, PSC-CUNY, \$3,525.
- 2008 New Faculty Fund (NFF), CUNY, \$784, 1/2 a year (Spring).
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PUBLICATIONS

Available at
<http://userhome.brooklyn.cuny.edu/ohadjiliadis>

Books

1. "Quickest detection". Authors: H. V. Poor and **O. Hadjiliadis**. Publisher: Cambridge University Press, Cambridge UK, November of 2008. This is a research monograph of 256 pages.

Peer-Reviewed Journal Publications and Book Chapters

2. Zhang, H., Rodosthenous, N. and **Hadjiliadis, O.** (2014) "Robustness of the N-CUSUM rule in a Wiener disorder problem", accepted by the Annals of Applied Probability.

3. Carlisle, M., **Hadjiliadis, O.** and Stamos, I. (2014) "Trends and trades", Handbook of high-frequency trading and modeling in finance. Editors: F. Viens, M. C. Mariani and I. Florescu, Publisher: John Wiley and Sons.
4. Zhang H., **Hadjiliadis, O.**, Schaefer T., and Poor H.V. (2014) "Quickest detection in stochastic coupled systems", SIAM Journal on Control and Optimization, issue 3, vol. 52, pp. 1567-1596.
5. Zhang, H., Leung T. and **Hadjiliadis, O.** (2013) "Stochastic modeling and fair valuation of drawdown insurance", Insurance: Mathematics and Economics, issue 3, vol. 53, pp. 840-850.
6. Zhang, H. and **Hadjiliadis, O.** (2012) "Drawdowns and the speed of market crash", Methodology and Computing in Applied Probability, issue 3, vol. 14, pp. 739-752.
7. Carr, P., Zhang, H. and **Hadjiliadis, O.** (2011) "Maximum drawdown insurance", International Journal in Theoretical and Applied Finance, issue 8, vol.14, pp. 1195-1230.
8. Zhang, H. and **Hadjiliadis, O.** (2010) "Drawdowns preceding Rallies in a finite time-horizon", Methodology and Computing in applied probability, issue 2, vol. 12, pp. 293-308.
9. Pospisil, L., Vecer, J. and **Hadjiliadis, O.** (2009) "Formulas for stopped diffusion processes with stopping times based on drawdowns and drawups", Stochastic Processes and their Applications, issue 8, vol. 119, pp. 2563-2578.
10. **Hadjiliadis, O.**, Zhang, H. and Poor, H.V. (2009) "One shot schemes for decentralized quickest change detection", IEEE Transactions on Information Theory, issue 7, vol. 55, pp. 3346-3359.
11. **Hadjiliadis, O.**, Hernandez-del-Valle, G. and Stamos, I. (2009) "A comparison of 2-CUSUM stopping rules for quickest detection of two-sided alternatives", Sequential Analysis, issue 1, vol. 28, pp. 92-114.
12. **Hadjiliadis, O.** and Poor, H. V. (2008-09) "On the best 2-CUSUM rule for quickest detection of two-sided alternatives in a Brownian motion model", (Teoriya Veroyatnostei i ee Primeneniya 2008), Theory of Probability and its applications, issue 3, vol. 53, pp. 610-622.
13. **Hadjiliadis, O.** and Vecer, J. (2006) "Drawdowns Preceding Rallies in the Brownian Motion Model", Quantitative Finance, issue 5, vol. 6, pp 403-409.
14. **Hadjiliadis, O.** and Moustakides, G.V. (2005-06) "Optimal and Asymptotically Optimal CUSUM rules for change point detection in the Brownian Motion Model with multiple alternatives", (Teoriya Veroyatnostei i ee Primeneniya 2005), Theory of Probability and its Applications, issue 1, vol. 50, pp 131-144.
15. **Hadjiliadis, O.** (2005) "Optimality of the 2-CUSUM Drift Equalizer Rules among the Harmonic Mean 2-CUSUM rule class for detecting two-sided alternatives in the Brownian Motion model", Journal of Applied Probability, issue 4, vol. 42, pp 1183-1193.

Peer-Reviewed Conference Publications

16. Heng, Y. and **Hadjiliadis, O.** (2014) "Quickest detection with post-change drift uncertainty", Proceedings of the IEEE Conference on Decisions and Control, December 10-13, Los Angeles, California.
17. Carlisle, M. and **Hadjiliadis, O.** (2013) "Sequential decision making in two-dimensional hypothesis testing", Proceedings of the 52nd IEEE International Conference on Decisions and Control conference, December 10 -13, Florence, Italy.
18. Zhang, H. and **Hadjiliadis, O.** (2012) "Quickest Detection in a system with correlated noise", Proceedings of the 51st IEEE International Conference on Decisions and Control, December 10 - 13, Maui, Hawaii.

19. Stamos, I., **Hadjiliadis, O.**, Zhang H. and Flynn, T. (2012) "Online algorithms in the classification of urban objects in 3D point clouds", Proceedings of the IEEE 3DIMPVT conference, October 13 - 15, Zurich, Switzerland.
20. **Hadjiliadis, O.** and Stamos, I. (2010). "Sequential classification in point clouds of urban scenes", Proceedings of the IEEE 3DIMPVT conference, May 17 - 20, Paris, France.
21. **Hadjiliadis, O.**, Schaefer, T. and Poor, H.V. (2009) "Quickest detection in coupled sensor networks", Proceedings of the 48th IEEE International Conference on Decisions and Control, December 16 - 18, Shanghai, China.
22. **Hadjiliadis, O.**, Zhang, H. and Poor, H. V. (2008) "One shot schemes for decentralized detection", Proceedings of the 11th International IEEE Conference on Information Fusion, June 30- July 3, Cologne, Germany.

Theses

23. **Hadjiliadis, O.**, 2005, Change-point detection of two-sided alternatives in the Brownian motion model and its connection to the gambler's ruin problem with relative wealth perception, *PhD Thesis, Columbia University*.

Working Papers

24. Yang, H., **Hadjiliadis, O.** and Ludkovski, M. (2014) "Cusum reaction period for simultaneous detection and identification", (currently under review).
25. Guerrier, S., **Hadjiliadis, O.** and Zhang, Xinyu (2014) "Latent random walk models and applications" (in preparation).
26. Carlisle, M., Cui, Z. and **Hadjiliadis, O.** (2014) "N-dimensional hypothesis testing" (in preparation).

Student supervision

1. Doctoral students

- (a) Hongzhong Zhang: Currently an Assistant Professor at Columbia University
- (b) Heng Yang: Ph.d. candidate at the Department of Mathematics at the Graduate Center of CUNY (due to graduate at the end of the academic year 2014-2015)
- (c) Thomas Flynn: (co-advisor) Ph.d. candidate at the Department of Computer Science at the Graduate Center of CUNY.

2. Undergraduate students

- (a) David Stulman: Senior Actuarial Associate at TIAA-CREF
- (b) Artur Sahakyan: Consultant at Prolifics Information Technology Services
- (c) Manshen Lin: UBS Summer Analyst at market Risk IT and MS candidate in Financial Engineering at Brooklyn Polytechnic Institute
- (d) Shmuel Pfeiffer: Eaglewood Capital Management LLC and MS candidate in Financial Engineering at Baruch College

Olympia Hadjiliadis

INVITED LECTURE SERIES

2010 Lecture series, Mathematical Institute in Guanajuato Mexico (May 30-June 4).

INVITED SEMINAR TALKS

- 2015 Bronx Community College, Department of Mathematics and Computer Science (Feb. 3-to be rescheduled).
- 2015 University of Texas at El Paso, Department of Mathematical Science (Jan. 30-to be rescheduled).
- 2014 University of Reno Nevada, STATFest (Nov. 15).
- 2014 Johns Hopkins University, Department of Mathematical Science (Oct. 30).
- 2014 Morgan Stanley (Oct. 29).
- 2014 NYU-Bloomberg International Association of Quantitative Finance/Thalesians seminar (Oct. 22).
- 2014 Probability seminar, CUNY (Sept. 30).
- 2014 State University of New York at Binghamton, Department of Electrical Engineering (April 9).
- 2014 State University of New York at Binghamton, Department of Mathematical Science (April 8).
- 2013 University of California at Santa Barbara, Department of Statistics (Oct. 9).
- 2013 Worcester Polytechnic, Department of Mathematics (April 26).
- 2013 University of Connecticut at Storrs, Department of Mathematics (March 8).
- 2012 Columbia University, Department of Statistics, Risk seminar (Oct. 24).
- 2012 Hunter College catalyst program (April 4).
- 2011 Seminar Course series on sequential algorithms, Department of Industrial Engineering and Operations Research, Columbia University (December 5).
- 2011 Cornell Financial Engineering Manhattan Seminar Series (Nov. 28).
- 2011 University of Michigan at Ann Arbor, Department of Mathematical Science (Oct. 13).
- 2011 Columbia University, Department of Operations Research (Aug. 17).
- 2011 London School of Economics, Department of Statistics (July 1).
- 2011 Google, Vision Group led by Vincent Luc, Mountain View, CA (June 13).
- 2011 Johns Hopkins University, Department of Mathematical Science (May 5).
- 2011 Graduate Center, CUNY, Department of Computer Science (April 7).
- 2011 Graduate Center, CUNY, Department of Mathematics, Probability seminar (March 29).
- 2011 Graduate Center, Statistics seminar (April 1).
- 2011 York College, Women in Mathematics, (March 12).
- 2011 University of California at Santa Barbara, Department of Statistics (Feb. 9).
- 2011 Stochastic Analysis Seminar, Prague (Jan. 4-5).
- 2010 Columbia University, Department of Statistics, Student Seminar Series (Sep. 14).
- 2010 Purdue University, Department of Statistics (April 20).
- 2009 Columbia University, Department of Statistics, Risk seminar (Dec. 2).
- 2009 University of Connecticut, Department of Statistics (Sept. 16).
- 2009 Georgia Institute of Technology, Department of Industrial and Systems Engineering (April 8).
- 2009 Bronx Community College (March 24).
- 2009 Columbia University, Department of Electrical Engineering (March 23).
- 2008 University of Delaware, Department of Mathematics (Dec. 19).
- 2008 Stevens Institute of Technology, Applied Mathematics seminar (Nov. 14).
- 2008 CUNY Graduate Center, Statistics seminar (Feb. 29).
- 2008 CUNY Graduate Center, Applied Math seminar lecture series (Feb. 29-March 7).
- 2008 University of Southern California, Department of Mathematics (Jan. 14).
- 2007 CUNY Graduate Center, Probability seminar (Dec. 4).
- 2007 Columbia University, Department of Statistics,
Advanced probability course in topics of Stochastic Differential Equations
and Applications (Nov. 29).
- 2007 Courant Institute of Mathematical Sciences, Mathematical Finance seminar,
New York University (Oct. 4).

- 2007 Kent University, Department of Mathematical Science, Kent Ohio (April 27).
- 2006 Fox School of Business, Department of Statistics, Temple University (Sep. 22).
- 2006 University of Waterloo, Department of Statistics (July 20).
- 2006 Columbia University, Department of Statistics (April 19).
- 2006 Carnegie Mellon University, Department of Mathematical Science (April 17).
- 2006 City College, Department of Mathematics, City University of New York (March 21).
- 2005 Bloomberg New York (Dec. 16).
- 2004 City College, Department of Mathematics, City University of New York (Dec. 2).
- 2004 Lehigh University, Department of Mathematics, Bethlehem Pennsylvania (Nov. 17).
- 2004 IBM - T. J. Watson Research Center, Yorktown Heights, New York (Oct. 29).
- 2004 Courant Institute of Mathematical Sciences, New York University (June 7).

INVITED CONFERENCE PRESENTATIONS

- 2015 Joint Statistical Meeting, Seattle WA (Aug 8-13).
To be delivered by Heng Yang.
- 2015 ASMDA annual meeting, Pireaus, Greece (June 30- July 3).
- 2015 29th New England Statistics Symposium, Storrs CT (April 25-26).
To be delivered by Heng Yang.
- 2014 INFORMS Annual Meeting, Session on financial services, San Francisco CA (Nov. 9-12)
Delivered by Heng Yang.
- 2014 IMS-FPS Workshop on Finance, Probability and Statistics, Sydney Australia (July 2-6).
- 2014 International Workshop in Applied Probability, IWAP meeting, Antalya Turkey (June 16 -19).
- 2014 28th New England Statistics Symposium, Boston MA (April 25-26).
- 2014 AMS meeting, Special session on financial mathematics, Albuquerque NM (April 5-6) .
- 2014 AMS meeting, Special session on financial mathematics, Baltimore MD (March 29).
- 2014 MAA and AMS Joint Mathematics meetings, Baltimore MD (Jan. 15-18).
SIAM mini-symposium on recent advances in financial mathematics.
- 2013 Conference on Modeling High Frequency Data in Finance IV, Hoboken NJ (Oct. 24-26).
- 2013 Interdisciplinary AMMCS Conference series, Waterloo ON Canada (Aug. 26-30).
Session on mathematical finance modeling, computation and risk management.
- 2013 MAA Mathfest, Hartford CT (July 31-Aug. 3).
Session on recent developments in mathematical finance.
- 2013 SIAM Conference on Control and its applications, San Diego CA (July 8 -10).
- 2013 NY Women in Math and Computer Science, Graduate Center of CUNY, New York NY (May 10).
- 2013 AMS meeting, Special session on financial mathematics, Boston MA (April 6-7).
- 2012 DTRA/NSF/NGA Algorithm for Threat Detection Workshop, San Diego CA (Nov. 26-29).
- 2012 Informs Annual Meeting, Session on market crashes, Phoenix AR (Oct. 14-17).
- 2012 AMS meeting, Special session on financial mathematics, Rochester NY (Sept. 22-23).
- 2012 Conference on Modeling High Frequency Data in Finance IV, Hoboken NJ (July 19-22).
- 2012 8th International Purdue Symposium on Statistics,
"Diversity in the Statistical Sciences for the 21st Century", Session on Quantitative Finance,
Purdue University, (June 20-24).
- 2012 6th International Workshop in Applied Probability, Jerusalem Israel (June 11-14).
- 2012 International Workshop on Sequential Methods and their Applications, Rouen France (June 4-8).
- 2011 INFORMS Annual Meeting, Session on financial services, Charlotte NC (Nov. 13-16).
- 2011 Conference on Modeling High Frequency Data in Finance III, Hoboken NJ (July 28-31).
- 2011 SIAM Conference on control and its applications,
Session on Stochastic and Risk-sensitive Control in Finance,
Baltimore MD (July 25-27).
- 2011 3rd International Workshop in Sequential Methodologies,
Special session on sequential detection and engineering applications,
San Francisco, California (June 14-16).
- 2011 3rd International Workshop in Sequential Methodologies (June 14-16).
- 2011 AMS meeting, Iowa City, Special Session on Financial Mathematics,
March 18-20.
- 2011 AMS meeting, Special session in stochastic analysis, New Orleans, (Jan. 6-8).
- 2010 International Workshop in Applied Probability, IWAP meeting,
Special session on Optimal stopping and change-point detection,
Colmenarejo, Spain (July 5-8).
- 2010 International Workshop in Applied Probability (IWAP), Colmenarejo, Spain (July 5-8).
- 2010 AMS meeting, Special session on Financial Mathematics, Hoboken NJ (May 22-23).
- 2010 AMS meeting, Special session on Financial Mathematics,
Albuquerque NM (April 17-18).
- 2009 NIPS (Neural Science and Information Systems) Conference,
Special Workshop on change-point detection, Vancouver, Canada (Dec. 11-12).
- 2009 2nd International Workshop on Sequential Methodologies, Troyes,

- 2008 IWAP Annual Meeting, Compiègne, France (July 7-10)
Special session in Stochastic Optimization and Dice Games I and
Special session on interface of applied probability with change point detection phenomena.
 - 2008 11th International Conference on Information Fusion,
Special session in distributed inference and decision-making in multi-sensor systems,
Cologne German (June 30-July 3).
 - 2007 AMS meeting on Financial Mathematics, Albuquerque NM (Oct. 13-14).
 - 2007 ISI Annual Meeting, Lisbon, Portugal (Aug. 22-29).
 - 2007 ASMDA Annual Meeting, Chania Crete, Greece (May 29-June 2).
 - 2005 13th INFORMS Applied Probability Conference, Ottawa Ontario (July 6-8).
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CONFERENCE PRESENTATIONS

- 2014 IEEE Conference on Decisions and Control, December 10-13, Los Angeles, California.
[presented by Heng Yang].
Title: Quickest detection with post-change drift uncertainty.
- 2014 DTRA/NSF/NGA Algorithm for Threat Detection Workshop, Boulder CO (March 10-12).
[presented by Heng Yang].
Title: Quickest Detection with Post-change drift Uncertainty.
- 2013 **(Peer-reviewed)** 52nd IEEE Conference on Decisions and Control,
Florence, Italy (Dec. 10-13) [presented by M. Carlisle].
Title: Sequential decision making in two-dimensional hypothesis testing.
- 2012 **(Peer-reviewed)** 51st IEEE Conference on Decisions and Control,
Maui, Hawaii (Dec. 10-13) [presented by H. Zhang].
Title: Quickest detection in systems with correlated noise.
- 2012 **(Peer-reviewed)** SIAM Conference on Financial Mathematics and Engineering,
Minneapolis (July 9-11).
Title: Drawdown swaps.
- 2012 **(Peer-reviewed)** 7th World Congress of the Bachelier Finance Society,
Sydney, Australia (June 19-22) [presented by H. Zhang]
Title: The price of a market crash.
- 2011 **(Peer-reviewed)** Rutgers Mathematical Finance and partial differential equations conference,
Rutgers University (November 4).
Title: Drawdowns and the speed of market crash.
- 2011 **(Peer-reviewed)** 16th INFORMS Applied Probability Society meeting,
Stockholm, Sweden (July 6-8).
Title: Drawdowns and the speed of market crash.
- 2010 **(Peer-reviewed)** 6th World Congress of the Bachelier Finance Society,
Toronto, Canada (June 22-26).
Title: Drawdown insurance.
- 2010 **(Peer-reviewed)** 3-D Processing Visualization and Transmission conference (3DPVT),
Paris, France (May 17-20).
Title: Sequential classification in point clouds of urban scenes.
- 2009 **(Peer-reviewed)** 48th IEEE International Conference on Decisions and Control,
Shanghai, China (Dec. 16-18).
Title: Quickest detection in coupled sensor networks.
- 2009 **(Peer-reviewed)** 15th INFORMS Applied Probability Society meeting,
Ithaca, New York (July 12-15).
Title: Drawdowns and rallies in a finite time-horizon and applications.
- 2007 First International Workshop in Sequential Methodologies (IWSM),
Auburn AL (July 22-25).
Title: The best 2-CUSUM stopping rules for quickest detection
of two-sided alternatives in a BM model.
- 2006 IMS Annual meeting,
Rio de Janeiro, Brazil (July 29-Aug. 4).
Title: The best 2-CUSUM stopping rules for quickest detection
of two-sided alternatives.
- 2005 Joint Statistical Meeting,
Minneapolis (Aug. 7-11).
Title: Optimal two-sided CUSUM stopping rules for change-point
detection in the Brownian motion model with two-sided alternatives.
- 2005 30th conference on Stochastic Processes and its Applications,
Santa Barbara CA (June 26-July 1).
Title: Change-point detection in the Brownian motion
model with two-sided alternatives.
- 2004 Joint Statistical Meeting, Toronto (Aug. 8-12).

COURSES TAUGHT

- Involvement in course CSC 86005, Big data analytics, Graduate Center, CUNY, Spring 2015.
- MATH 89905, Independent research study, Graduate Center, CUNY, Spring 2015. (Graduate students: Ni Lu Yen, Chris Knaplund).
- MATH 4501 Statistics, Brooklyn College, CUNY, Spring 2015.
- MATH 85200/CSC 86010 Topics in Applied Mathematics: Quickest Detection & Applications, Fall 2014.
- MATH 1311, Thinking mathematically, Fall 2014.
- MATH 90000, Dissertation supervision, Graduate Center, CUNY, Fall 2013, Spring 2014, Fall 2014, Spring 2015. (Graduate students: Heng Yang).
- MATH 89905, Independent research study, Graduate Center, CUNY, Fall 2013. (Graduate student: Hengyu Zhou)
- MATH 4501 Statistics, Brooklyn College, CUNY, Spring 2013.
- MATH 5002, 5003, Independent research study, Brooklyn College, Fall 2012, Spring 2013 (Undergraduate students: Anh Dinh, Manshen Lin).
- MATH 89905, Independent Study, Graduate Center, CUNY, Spring 2013. (Graduate student: Mikhail Sklar)
- MATH 90000, Dissertation supervision, Graduate Center, CUNY, Spring 2013, Fall 2013 (Graduate student: Heng Yang)
- MATH 85200/CSC 86010 Topics in Applied Mathematics: Quickest Detection & Applications in Finance & Computer Vision, Fall 2012.
- MATH 89905, Independent Study, Graduate Center, CUNY, Spring 2012 (Graduate student: Heng Yang).
- MATH 4601/ECON 3375/BUS 3375, Financial Derivatives and their pricing, Spring 2012.
- MATH 3601/ECON 3370/BUS 3370, Investment Science, Brooklyn College, CUNY, Fall 2011.
- MATH 85200/PHYS 85200/CSC 87100, Science of Finance, Graduate Center, Spring 2011.
- MATH 83100, Probability Theory, Graduate Center, Fall 2010.
- MATH 3.3, Calculus I, Brooklyn College, Spring 2010.
- MATH 88.1, Independent Research, Brooklyn College, Fall 2009. (Undergraduate student: Artur Sahakyan)
- CSC 84020, Quickest Detection of abrupt changes and applications, Computer Science Department, Graduate Center, Spring 2009. Interdisciplinary course in Mathematics and Computer Science.
- MATH 90000, Dissertation supervision, Department of Mathematics, Graduate Center, Fall 2008, Spring 2009, Fall 2009, Spring 2010. (Graduate student: Hongzhong Zhang) Note: Hongzhong Zhang is graduated on 05-11-2010. He is currently a non-tenure track Assistant Professorship at Columbia University's Statistics Department. His appointment began on July the 1st of 2010.
- PHYS 85200, Science of Finance, Graduate Center, Fall 2008.
- MATH 88.1, Independent Research, Brooklyn College, Fall 2008. (Undergraduate student: David Stulman)

- MATH 52, Mathematical Statistics, Brooklyn College, CUNY, Spring 2008.
 - MATH 74.3, Financial derivatives and their pricing, Brooklyn College, CUNY, Spring 2008. (This course was designed by me and was taught this term for the first time.)
 - MATH 74.2, Investment Science, Brooklyn College, CUNY, Fall 2007.
 - MATH 312, Probability & Statistics II, Drexel University, Winter 2007.
 - MATH 311, Probability & Statistics I, Drexel University, Fall 2006.
 - W4150, Statistics & Probability, Columbia University, Spring 2005.
 - W1001, Introduction to Statistical Reasoning, Columbia University, Fall 2004.
 - W1111, Introduction to Statistics, Columbia University, Summer 2004.
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DOCTORAL THESES SUPERVISED

2010	Hongzhong Zhang, <i>Drawdowns, drawups and their applications</i> , PhD program in Mathematics, Graduate Center of the City University of New York. Currently an Assistant Professor at Columbia University.
In progress	Heng Yang, PhD program in Mathematics, Graduate Center of the City University of New York. Due to graduate in 2015.
In progress	Thomas Flynn, PhD program in Computer Science, Graduate Center of the City University of New York. Due to take second exam in spring of 2015. Co-advised with I. Stamos

PROFESSIONAL SERVICE

-Editorial service

2011-Present Associate Editor, Probability in Engineering and Informational Science, Cambridge University Press.

-Referee

Bulletin of the American Mathematical Society (2014)-AMS book review on the topic of Contract Theory by Jaksa Cvitanic and Jianfeng Zhang. SIAM Journal on Financial Mathematics, SIAM Journal on Optimization and Control, Annals of Applied Probability, Journal of Applied Probability, Journal of Quantitative Finance, Mathematical Finance Journal, Stochastic Processes and its applications, NSF grant proposals, JASA, IEEE-Conference on Decision and Control, IEEE Symposium on information theory, Sankhya Statistical Journal, Mathematical Reviews, IEEE Transactions on Information Theory, IEEE Transactions on Signal processing, Mathematics of Operations Research, Operations research letters, Journal of Derivatives.

-NSF panel reviewer

2013 NSF DMS panel reviewer, session on Financial Mathematics, Arlington VA (March 15-16).
2014 NSF DMS panel reviewer, session on Financial Mathematics, Arlington VA (March 27-28).

-Invited Sessions Organizer and Chair

- 2013 4th International Conference on Continuous Optimization,
Organized a session on Stochastic Optimization in Sequential Detection and Optimal Execution,
Lisbon Portugal (July 27- Aug. 1).
- 2012 Informs Annual Meeting, Organized Session on market crashes (Oct. 14-17).
- 2012 6th International Workshop in Applied Probability,
Organized Finance and Management and Finance and Stochastics Sessions,
Jerusalem Israel, (June 11-14).
- 2011 3rd International Workshop in Sequential Methodologies,
Organized Session on optimal stopping and sequential decision making (June 14-16).
- 2010 Organized two sessions on the topic of Stochastics and Finance at the
International Workshop in Applied Probability (IWAP), Colmenarejo, Spain (July 5-8).

-University Service

At Brooklyn College of the City University of New York

- Founder and advisor of the trading club (Fall 2012-Spring 2013, Fall 2014-now)
- Design of the curriculum of the new B.S. program in Financial Math (Fall 2007-Spring 2010)
Approved at Brooklyn College in the Spring of 2010.
- Promotion of the Financial Math new B.S. program (Fall 2010-now).
- Invitation and arrangement of talks of external speakers/recruiters from the industry (2008-now).
- Member of the Committee on Committees (Fall 2010-Spring 2012, Fall 2014-now).
- Member of the Seminars and Research Committee (Fall 2010-Spring 2012).
- Member of the Curriculum Committee (Fall 2010-Spring 2012).
- Financial math/Actuarial Science ad-hoc Committee (chair) (Fall 2010- Spring 2011).
- Member of the Library Committee (2012-now).
- Member of the Seminar and Research Committee (2012-now).
- Member of the Actuarial, Financial, Applied Mathematics Committee (2012-now).
- Non-voting member of the search Committee for Actuarial Science (Fall 2012- Spring 2013).
- Chair Search Committee (Spring 2010).
- Brooklyn College representative, Brooklyn borough meeting (Feb. 19 2008).
- Faculty Council: Chair of the College-wide research committee (Fall 2014-now).

At the Graduate Center of the City University of New York

- Risk seminar co-organizer jointly with the Columbia University Statistics Department (September 2010-May 2012).
- Active participant of the probability seminar, speaker suggestions (September 2010-May 2012).

- PSC-CUNY panelist 2010-2011.
- Member of the local organizing committee for the Northeast Probability Seminar (Fall 2008, 2010, 2011, 2012).

-Doctoral Defense Committees

- | | |
|---------|---|
| 2015 | Wenyu Du, Department of Mathematical Science,
SUNY Binghamton |
| 2012-13 | Kai Cai, Exam Committee, Department of Computer Science,
CUNY Graduate Center. |
| 2012 | Michael Carlisle, PhD Thesis Defense Committee, Department of Mathematics,
CUNY Graduate Center. |
| 2008 | Libor Pospisil, PhD Thesis Defense Committee, Department of Statistics,
Columbia University. |
| 2006 | Olivier Nimeskern, PhD Thesis Defense Committee, Department of Statistics,
Columbia University. |