CURRICULUM VITAE

Gordan Žitković

The University of Texas at Austin
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Education

Columbia University
Ph.D. Degree in Statistics, 2003 - awarded with distinction. Advisor *I. Karatzas*

Vienna University of Technology and **University of Zagreb**
M.Sc. Degree in Mathematics, 1999. Advisors *W. Schachermayer* and *Z. Vondraček*

University of Zagreb
B.Sc. Degree in Mathematics, 1997

United World College of the Adriatic, Italy
International Baccalaureate, 1993

Employment (long-term positions)

The University of Texas at Austin, Department of Mathematics
Associate Professor (with tenure), 2011-present
Assistant Professor, 2005 - 2011

Carnegie Mellon University, Department of Mathematical Sciences
Postdoctoral Associate, 2003 - 2005

Employment (visiting positions)

University of Oxford, Oxford-Man Institute and Mathematical Institute
Visiting Scholar, 2010

Research Interests

Mathematical finance, Stochastic optimization, Stochastic analysis

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Grants

NSF CAREER Grant:

Title:	*Equilibria and Stability in Financial Markets (DMS-0955614)*
Discipline Program:	*Probability/Applied Mathematics*
Amount:	*$500,000*
Duration:	*2010-2015*

NSF Grant:

Title:	*Stochastic Modeling and Methods in Financial Equilibrium Theory (DMS-0706947)*
Discipline Program:	*Probability*
Amount:	*$179,953*
Duration:	*2007-2010*

"The Unity Through Knowledge Fund" Grant (project co-PI):

Title:	*Worldwide Distributed Computing in Molecular Biology*
Amount:	*$252,724*
Duration:	*2008-2010*

NSF Grant (project co-PI):

Title:	*Workshop on Stochastic Analysis in Finance and Insurance (DMS-1108593)*
Discipline Program:	*Applied Mathematics*
Amount:	*$40,000*
Duration:	*2011-2012*

Publications
(published or accepted for publication)

[1] C. Kardaras and G. Žitković (2011) "Forward-convex convergence of sequences of nonnegative random variables." to appear in Proceedings of the AMS.

[2] C. Kardaras and G. Žitković (2011) "Stability of the utility maximization problem with random endowment in incomplete markets." *Mathematical Finance*, 21(2):313–333.

[3] M. Anthropelos and G. Žitković (2010) "On agents' agreement and partial-equilibrium pricing in incomplete markets." *Mathematical Finance*, 20(3):411–446.

[4] M. Anthropelos and G. Žitković (2010) "Partial equilibria with convex capital requirements: Existence, uniqueness and stability." *Annals of Finance*, 6(1):107–135.

[5] T. Zariphopoulou and G. Žitković (2010) "Maturity-independent risk measures." *SIAM Journal on Financial Mathematics*, 1:266–288.

[6] G. Žitković (2010) "An example of a stochastic equilibrium with incomplete markets." to appear in Finance and Stochastics.

[7] G. Žitković (2010) "Utility theory: historical perspectives." In *Encyclopedia of Quantitative Finance*. John Wiley and Sons Inc., New York.

[8] M. Hlevnjak, G. Žitković, and B. Žagrović (2009) "Hydrophilicity matching : a prerequisite for the formation of protein-protein complexes." *PLoS One*, 5(6):e11169.

[9] M. Owen and G. Žitković (2009) "Optimal investment with an unbounded random endowment and utility-based pricing." *Mathematical Finance*, 19(1):129–159.

[10] T. A. Pirvu and G. Žitković (2009) "Maximizing the growth rate under risk constraints." *Mathematical Finance*, 19(3):423–455.

[11] G. Žitković (2009) "Convex-compactness and its applications." *Mathematics and Financial Economics*, 3(1):1–12.

[12] G. Žitković (2009) "A dual characterization of self-generation and exponential forward performances." *Ann. Appl. Probab.*, 19(6):2176–2210.

[13] K. Larsen and G. Žitković (2008) "On the semimartingale property via bounded logarithmic utility." *Annals of Finance*, 4(2):255–268.

[14] T. Zariphopoulou and G. Žitković (2008) "On maturity-independent risk measures." In *Proceedings of 47th IEEE Conference on Decision and Control*, pages 5596–6501.

[15] K. Larsen and G. Žitković (2007) "Stability of utility-maximization in incomplete markets." *Stochastic Processes and their Applications*, 117(11):1642–1662.

[16] G. Žitković (2006) "Financial equilibria in the semimartingale setting: complete markets and markets with withdrawal constraints." *Finance and Stochastics*, 10(1):99–119.

[17] G. Žitković (2005) "Utility maximization with a stochastic clock and an unbounded random endowment." *Annals of Applied Probability*, 15(1B):748–777.

[18] I. Karatzas and G. Žitković (2003) "Optimal consumption from investment and random endowment in incomplete semimartingale markets." *Annals of Probability*, 31(4):1821–1858.

[19] G. Žitković (2002) "A filtered version of the bipolar theorem of Brannath and Schachermayer." *Journal of Theoretical Probability*, 15(1):41–61.

Invited Presentations
(last 5 years)

2011.

- Stochastic Analysis in Finance and Insurance (Mathematical Research Center Oberwolfach, Oberwolfach, Germany)
- SIAM-SEAS Conference (Charlotte, NC)
- University of Kansas (Lawrence, KS)
- 4th Western Conference on Mathematical Finance (Los Angeles, CA)
- University of Michigan (Ann Arbor, MI)
- Carnegie Mellon University (Pittsburgh, PA)

2010.

- SIAM Mini-Symposium on Investment and Portfolio Theory (San Francisco, CA)
- Postdoctoral Academy (New University of Lisbon, Lisbon, Portugal)
- Workshop on Foundations of Mathematical Finance (Fields Institute, Toronto, Canada)
- Ecole Polytechnique (Paris, France)
- University of Michigan (Ann Arbor, MI)
- University of Oxford (Oxford, United Kingdom)
- Carnegie Mellon University (Pittsburgh, PA)
- University of Southern California (Los Angeles, CA)

2009.

- Short Course on Mathematical Finance, MathFest 2009 (Portland, OR)
- 15th INFORMS Applied Probability Society Conference (Cornell University, NY)
- Daiwa Young Researchers' International Workshop (Kyoto University, Kyoto, Japan)
- Joint National Meeting of the American Mathematical Society (Washington, DC)
- Columbia University (New York, NY)
- Georgia State University (Atlanta, GA)

2008.

- 47th IEEE Conference on Decision and Control (Cancun, Mexico)
- Workshop on Optimization in Mathematical Finance (Johann Radon Institute for Computational and Applied Mathematics, Linz, Austria)
- Stochastic Analysis in Finance and Insurance (Mathematical Research Center Oberwolfach, Oberwolfach, Germany)
- Meeting of the South-Western Actuarial Foundation (Dallas, TX)

2007.

- Joint National Meeting of the American Mathematical Society (New Orleans, LA)
- ICMS Workshop on Quantitative Finance (Edinburgh, UK)
- CCCP Mathematical Finance Workshop (Princeton University, NJ)
- University of California, Santa Barbara (Santa Barbara, CA)
- University of Southern California (Los Angeles, CA)
- Columbia University (New York, NY)

Teaching

Assistant/Associate Professor at University of Texas at Austin:

- *Fall 2006, Fall 2007, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Fall 2011* - designed and taught a core graduate course in probability theory
- *Fall 2011* - taught an undergraduate course in probability theory
- *Spring 2011* - designed and taught an advanced graduate course in Malliavin calculus
- *Spring 2008, Fall 2008* - designed and taught an undergraduate course in stochastic processes
- *Spring 2007* - designed and taught an advanced graduate course in mathematical economics
- *Spring 2006* - designed and taught an advanced graduate course in stochastic analysis
- *Fall 2005* - taught a large (130 students) introductory undergraduate course in linear algebra

Instructor at Carnegie Mellon University: designed and taught a continuous-time finance course for the undergraduate major in computational finance (several times)

Instructor at Columbia University: taught an introductory course in statistics (several times)

IMO coach: served several times as a coach for the Croatian high-school International Mathematical Olympiad teams

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Graduate and Postgraduate Advising

Postdoctoral fellows at UT Austin, Department of Mathematics (supervisor):

- *G. Wu* (PhD: University of California Berkeley, advisors C. Evans and X. Guo)
- *S. Summerville* (PhD: University of California Berkeley, advisor Y. Perez) - supervised jointly with L. Caffarelli
- *G. Brunick* (PhD: Carnegie Mellon University, advisor S. Shreve) - supervised jointly with M. Sîrbu

Ph.D. students at UT Austin, Department of Mathematics (advisor):

- *C. Chen*
- *J. Li* (in candidacy),
- *J. Choi* (in candidacy, co-advised with M. Sîrbu)
- *Y. Zhao* (in candidacy)
- *A. DiTanna* (graduated: May 2009; employment: Goldman Sachs)
- *M. Anthropelos* (graduated: Dec 2008; employment: assistant professor, University of Piraeus, Greece)

Ph.D. students at UT Austin (committee member): *M. Dumav* (Economics), *P. Monin* (Mathematics), *N. Ringer* (Mathematics), *T. Zhou* (Mathematics), *X. You* (Mathematics), *Q. Sou* (Mathematics), *C.-B. Chae* (Electrical and Computer Engineering), *C. Lee* (Electrical and Computer Engineering), *X. You* (Civil, Architectural and Environmental Engineering), *U. Khan* (Economics), *A. Lockett* (Computer Science) and *H. Arabshahi* (Civil, Architectural and Environmental Engineering)

Ph.D. students outside of UT Austin (committee member): *H. Kauppila* (Columbia University, Department of Mathematics)

Master's students at UT Austin, Department of Mathematics: *S. Zhao*, *M. Dumav* (graduated: Aug 2011), *B. Duran* (graduated: May 2008), *J. Li* (graduated: May 2006) and *J. K. Xia* (graduated: Dec 2006)

Service

National Science Foundation:

- NSF Panelist, 2010

Editorial boards:

- Associate Editor for *Finance and Stochastics*

Conference, workshop and school organization:

- *Stochastic Analysis in Finance and Insurance*, University of Michigan, co-organizer (upcoming, May 2011)
- *3rd Western Conference in Mathematical Finance*, Santa Barbara, scientific committee member (Nov 2009)
- *Minisymposium on PDE in Mathematical Finance*, SIAM Conference on Analysis of Partial Differential Equations, Miami, co-organizer (Dec 2009)
- *2009 RTG Summer School on Financial Mathematics*, UT Austin, (July 2009)
- *2nd Western Conference in Mathematical Finance*, UT Austin, co-organizer (Nov 2008)
- *CCCP Workshop on Mathematical Finance*, CMU, co-organizer (Jan 2005)

Journal reviewing: Acta Applicandae Mathematicae, Annals of Applied Probability, Annals of Finance, Annals of Probability, Applied Mathematical Finance, Applied Mathematics Letters, Decisions in Economics and Finance, Economics Bulletin, Finance and Stochastics, International Journal of Theoretical and Applied Finance, Journal of Economic Dynamics and Control, Journal of Theoretical Probability, Mathematical Finance, Mathematics of Operations Research, Probability Theory and Related Fields, Review of Financial Studies, SIAM Journal on Control and Optimization, SIAM Journal on Financial Mathematics, Statistics and its Interface, Statistics and Decisions, Stochastic Processes and their Applications

Book reviewing: Cambridge University Press, Princeton University Press, MAA Book Reviews

Conference reviewing: Texas Quantitative Finance Festival (2010), World Congresses of the Bachelier Finance Society (2008, 2010), IEEE Conferences on Decision and Control (2008, 2009)