CURRICULUM VITAE

Gordan Žitković

The University of Texas at Austin
Department of Mathematics
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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
Professor, 2017 - present
Associate Professor, 2011 - 2017
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 Grant:

Title:	*Stochastic Equilibria and Related Topics in Financial Mathematics (DMS-1516165)*
Discipline Program:	*Applied Mathematics*
Amount:	*$346,996*
Duration:	*2015-2018*

NSF Grant (co-PI):

Title:	*Workshop on Probability, Control and Finance (DMS-1204036)*
Discipline Program:	*Applied Mathematics*
Amount:	*$45,000*
Duration:	*2012-2013*

NSF Collaborative-Research Grant (project co-PI):

Title:	*Kinetic Description of Emerging Challenges in Multiscale Problems of Natural Sciences (DMS-1107465)*
Discipline Program:	*Applied Mathematics*
Amount:	*$1,000,000*
Duration:	*2012-2017*

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*

NSF CAREER Grant:

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

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

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

NSF Grant:

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

Publications
(published or accepted for publication)

[1] K. Larsen, O. Mostovyi, and G. Žitković (2017) "An expansion in the model space in the context of utility maximization." To appear in Finance and Stochastics.

[2] J. Li and G. Žitković (2017) "Existence, characterization and approximation in the generalized monotone follower problem." To appear in SIAM Journal of Control and Optimization.

[3] H. Xing and G. Žitković (2017) "A class of globally solvable Markovian quadratic bsde systems and applications." To appear in Annals of Probability.

[4] K. Larsen, H. M. Soner, and G. Žitković (2016) "Facelifting in utility maximization." *Finance and Stochastics*, 20(1):99–121. doi:10.1007/s00780-015-0274-y.

[5] G. Žitković (2014) "Dynamic programming for controlled Markov families: abstractly and over martingale measures." *SIAM Journal of Control and Optimization*, 52(3):1597–1621. doi:10.1137/130926481.

[6] J. Choi, M. Sirbu, and G. Žitković (2013) "Shadow prices and well-posedness in the problem of optimal investment and consumption with transaction costs." *SIAM Journal of Control and Optimization*, 51(6):4414–4449.

[7] C. Kardaras and G. Žitković (2013) "Forward-convex convergence of sequences of nonnegative random variables." *Proceeding of the American Mathematical Society*, 141:919–929. doi:10.1090/S0002-9939-2012-11373-5.

[8] K. Larsen and G. Žitković (2013) "Utility maximization under convex portfolio constraints." *Annals of Applied Probability*, 23(2):665–692. doi:10.1214/12-AAP850.

[9] G. Žitković (2012) "An example of a stochastic equilibrium with incomplete markets." *Finance and Stochastics*, 16(2):177–206. doi:10.1007/s00780-011-0161-0.

[10] C. Kardaras and G. Žitković (2011) "Stability of the utility maximization problem with random endowment in incomplete markets." *Mathematical Finance*, 21(2):313–333. doi:10.1111/j.1467-9965.2010.00433.x.

[11] M. Anthropelos and G. Žitković (2010) "On agents' agreement and partial-equilibrium pricing in incomplete markets." *Mathematical Finance*, 20(3):411–446. doi: 10.1111/j.1467-9965.2010.00405.x.

[12] M. Anthropelos and G. Žitković (2010) "Partial equilibria with convex capital requirements: Existence, uniqueness and stability." *Annals of Finance*, 6(1):107–135. doi: 10.1007/s10436-009-0134-x.

[13] T. Zariphopoulou and G. Žitković (2010) "Maturity-independent risk measures." *SIAM Journal on Financial Mathematics*, 1:266–288. doi:10.1137/080739732.

[14] G. Žitković (2010) "Utility theory: historical perspectives." In *Encyclopedia of Quantitative Finance*. John Wiley and Sons Inc., New York. doi: 10.1002/9780470061602.eqf01011.

[15] M. Hlevnjak, G. Žitković, and B. Žagrović (2009) "Hydrophilicity matching : a prerequisite for the formation of protein-protein complexes." *PLoS One*, 5(6):e11169. doi:10.1371/journal.pone.0011169.

[16] M. Owen and G. Žitković (2009) "Optimal investment with an unbounded random endowment and utility-based pricing." *Mathematical Finance*, 19(1):129–159. doi: 10.1111/j.1467-9965.2008.00360.x.

[17] T. A. Pirvu and G. Žitković (2009) "Maximizing the growth rate under risk constraints." *Mathematical Finance*, 19(3):423–455. doi:10.1111/j.1467-9965.2009.00378.x.

[18] G. Žitković (2009) "Convex-compactness and its applications." *Mathematics and Financial Economics*, 3(1):1–12. doi:10.1007/s11579-010-0024-z.

[19] G. Žitković (2009) "A dual characterization of self-generation and exponential forward performances." *Ann. Appl. Probab.*, 19(6):2176–2210. doi:10.1214/09-AAP607.

[20] K. Larsen and G. Žitković (2008) "On the semimartingale property via bounded logarithmic utility." *Annals of Finance*, 4(2):255–268. doi:10.1007/s10436-006-0067-6.

[21] T. Zariphopoulou and G. Žitković (2008) "On maturity-independent risk measures." In *Proceedings of 47th IEEE Conference on Decision and Control*, pages 5596–6501. doi:10.1109/CDC.2008.4739244.

[22] K. Larsen and G. Žitković (2007) "Stability of utility-maximization in incomplete markets." *Stochastic Processes and their Applications*, 117(11):1642–1662. doi: 10.1016/j.spa.2006.10.012.

[23] G. Žitković (2006) "Financial equilibria in the semimartingale setting: complete markets and markets with withdrawal constraints." *Finance and Stochastics*, 10(1):99–119. doi: 10.1007/s00780-005-0175-6.

[24] G. Žitković (2005) "Utility maximization with a stochastic clock and an unbounded random endowment." *Annals of Applied Probability*, 15(1B):748–777. doi: 10.1214/105051604000000738.

[25] I. Karatzas and G. Žitković (2003) "Optimal consumption from investment and random endowment in incomplete semimartingale markets." *Annals of Probability*, 31(4):1821–1858. doi:10.1214/aop/1068646367.

[26] G. Žitković (2002) "A filtered version of the bipolar theorem of Brannath and Schachermayer." *Journal of Theoretical Probability*, 15(1):41–61. doi: 10.1023/A:1013885121598.

Publications (submitted or in preparation)

[1] R. Fayvisovich and G. Žitković (2017) "A framework for the dynamic programming principle and martingale-generated control structures." In preparation.

[2] K. Larsen, H. M. Soner, and G. Žitković (2016) "Conditional davis pricing." Submitted for publication.

[3] C. Kardaras, H. Xing, and G. Žitković (2015) "Incomplete stochastic equilibria with exponential utilities close to Pareto optimality." Submitted for publication.

Service

National Science Foundation:

- NSF Panelist, 2010, 2012, 2014, 2015, 2016

Editorial boards:

- Associate Editor for *Finance and Stochastics* (since 2009)
- Associate Editor for *Mathematical Finance* (since 2013)

Conference, workshop and school organization:

- *Stochastic Analysis and Mathematical Finance - a fruitful partnership*, Oaxaca (a BIRS-CMO conference), co-organizer (May 2016, May 2018 (upcoming))
- *7th Western Conference in Mathematical Finance*, UT Austin, co-organizer (Nov 2015)
- *Interacting agents in constrained financial markets*, University of Texas, Austin (January 2015)
- *Mathematical Finance: Arbitrage and Portfolio Optimization*, Banff International Reseach Station (May 2014)
- *Mathematical Finance and Stochastic Control*, Lisbon, Portugal (July 2012)
- *Probability, Control and Finance*, Columbia University (June 2012)
- *Stochastic Analysis in Finance and Insurance*, University of Michigan, co-organizer (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: Springer Verlag, 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)

Other: research-quality reviewer for the Italian Ministry of Education