

Ebrahim Nasrabadi

CONTACT INFORMATION	Postdoctoral Associate Sloan School of Management Massachusetts Institute of Technology 77 Massachusetts Avenue, Bldg. E40-149 Cambridge, MA 02139 USA	<i>Tel:</i> +1-617-258-5040 <i>Fax:</i> +1-617-258-9214 <i>E-mail:</i> nasrabad@mit.edu
RESEARCH INTERESTS	Network Optimization, Mathematical Optimization, Robust Optimization, Algorithmic Game Theory	
ACADEMIC APPOINTMENTS	Postdoctoral Associate Sloan School of Management and Operations Research center, Massachusetts Institute of Technology – Supervisors: Professor Dimitris Bertsimas, Professor James B. Orlin	October 2010 to present
	Postdoctoral Researcher Institut für Mathematik, Technische Universität Berlin – Supervisor: Professor Martin Skutella	April 2009 to Sep 2010
EDUCATION	Technische Universität Berlin , Berlin, Germany <i>Ph.D in Mathematics</i> • Thesis Topic: <i>Dynamic Flows in Time-varying Networks</i> • Adviser: Professor Martin Skutella	March 2009
	Sharif University of Technology , Tehran, Iran <i>M.Sc. in Industrial Engineering</i> • Thesis Topic: <i>Fuzzy Linear Regression Models</i> • Adviser: Professor Mohammad Modarres	September 2003
	Bahonar University of Kerman , Kerman, Iran <i>B.Sc. in Applied Mathematics</i>	May 2002
TEACHING EXPERIENCE	Massachusetts Institute of Technology, Cambridge, MA <i>Teaching Associate</i> • 15.053 - Optimization Methods in Management Science (Overall Ranking 6.3 out of 7)	Spring 2012
	Amirkabir University of Technology, Tehran, Iran <i>Instructor</i> • Algorithmic Game Theory • Advanced Network Optimization	Fall 2011
PAPERS IN PREPARATION	<ul style="list-style-type: none">[1] D. Bertsimas, E. Nasrabadi, and J. Orlin. On the power of nature in robust optimization. Working paper, MIT, 2012.[2] D. Bertsimas, E. Nasrabadi, and J. Orlin. On the power of randomization in network interdiction. Working paper, MIT, 2012.[3] E. Nasrabadi, and J. Orlin. Two-stage robust-incremental optimization Working paper, MIT, 2012.	

SUBMITTED
JOURNAL
PUBLICATIONS

- [4] D. Bertsimas, E. Nasrabadi, and S. Stiller. Robust and adjustable network flows. submitted to *Operations Research*.
- [5] R. Koch, and E. Nasrabadi. Flows over time in time-varying networks. Technical Report 15-2010, Technische Universität Berlin, 2010. submitted to *SIAM Journal Optimization*.
- [6] R. Koch and E. Nasrabadi. Continuous-time dynamic shortest paths with negative transit times. Technical Report 6-2010, Technische Universität Berlin, 2010. submitted to *SIAM Journal on Control and Optimization* (under the second round of review).

REFERRED
JOURNAL
PUBLICATIONS

- [7] S. M. Hashemi and E. Nasrabadi. On solving continuous-time dynamic network flows. *Journal of Global Optimization*, 2012. to appear.
- [8] R. Koch, E. Nasrabadi, and M. Skutella. Continuous and discrete flows over time. *Mathematical Methods of Operations Research*, 73:301–337, 2011.
- [9] E. Nasrabadi and S. M. Hashemi. Minimum cost time-varying network flow problems. *Optimization Methods and Software*, 25:429–447, 2010.
- [10] S. M. Hashemi, S. Mokarami, and E. Nasrabadi. Dynamic shortest path problems with time-varying costs. *Optimization Letters*, 4:147–156, 2010.
- [11] E. Nasrabadi and S. M. Hashemi. Robust fuzzy regression analysis using neural networks. *International Journal Uncertainty, Fuzziness and Knowledge-Based Systems*, 16:579–598, 2008.
- [12] E. Nasrabadi, S. M. Hashemi, and M. Ghatee. An LP-based approach to outliers detection in fuzzy regression analysis. *International Journal Uncertainty, Fuzziness and Knowledge-Based Systems*, 15:441–456, 2007.
- [13] S. M. Hashemi, M. Ghatee, and E. Nasrabadi. Combinatorial algorithms for the minimum interval cost flow problem. *Applied Mathematics and Computation*, 175:1200–1216, 2006.
- [14] S. M. Hashemi, M. Modarres, E. Nasrabadi, and M. M. Nasrabadi. Fully fuzzified linear programming, solution and duality. *Journal of Intelligent & Fuzzy Systems*, 17:253–261, 2006.
- [15] M. Modarres, E. Nasrabadi, and M. M. Nasrabadi. Fuzzy linear regression models with least squares errors. *Applied Mathematics and Computation*, 163:977–989, 2005.
- [16] M. M. Nasrabadi, E. Nasrabadi, and A. R. Nasrabad. Fuzzy linear regression analysis: A multi-objective programming approach. *Applied Mathematics and Computation*, 163:245–251, 2005.
- [17] G. R. Jahanshahloo, Soleimani damaneh M., and E. Nasrabadi. Measure of efficiency in dea with fuzzy input-output levels: A methodology for assessing, ranking and imposing weights restrictions. *Applied Mathematics and Computation*, 156:175–187, 2004.
- [18] M. Modarres, E. Nasrabadi, and M. M. Nasrabadi. Fuzzy linear regression analysis from the point of view risk. *International Journal Uncertainty, Fuzziness and Knowledge-Based Systems*, 12:635–649, 2004.
- [19] M. M. Nasrabadi and E. Nasrabadi. A mathematical-programming approach to fuzzy linear regression analysis. *Applied Mathematics and Computation*, 155:873–881, 2004.

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PUBLICATIONS

- [20] R. Koch and E. Nasrabadi. Strong duality for the maximum borel flow problem. In J. Pahl, T. Reiners, and S. Voß, editors, *Network Optimization*, volume 6701 of *Lecture Notes in Computer Science*, pages 256–261. Springer, Berlin, 2011. to appaer.
- [21] E. Nasrabadi and S. M. Hashemi. On solving dynamic shortest path problems. In L. Sakalauskas and E. K. Zavadskas, editors, *Proceedings of 20th International Conference/Euro Mini Conference on Continuous Optimization and Knowledge-Based Technologies (EurOPT 2008)*, pages 48–53, Neringa, Lithuania, MAY 20–23, 2008.
- [22] S. M. Hashemi, E. Nasrabadi, and M. Ghatee. Fuzzy regression analysis using neural networks. In *Proceedings of 6th Conference on Fuzzy Systems and 1th Islamic World Conference of Fuzzy Systems*, pages 1–7, Shiraz, Iran, May 18–21, 2006.
- [23] E. Nasrabadi and S. M. Hashemi. Fuzzy regression analysis using neural networks. In *Proceedings of 6th Conference on Fuzzy Systems and 1th Islamic World Conference of Fuzzy Systems*, pages 495–506, Shiraz, Iran, May 18–21, 2006.
- [24] S. M. Hashemi, M. Modarres, M. M. Nasrabadi, and E. Nasrabadi. Three models to fuzzy linear regression. In *Proceedings of 5th Iranian Conference on Fuzzy Systems*, pages 231–237, Tehran, Iran, September 7–9, 2004.
- [25] M. Modarres, M. M. Nasrabadi, E. Nasrabadi, and G. R. Mohtashami. Evaluation of fuzzy linear regression models: A mathematical programming approach. In *Proceedings of 4-th Seminar on Fuzzy Sets and its Applications*, pages 1–7, Babolsar, Iran, May 28–29, 2003.
- [26] M. M. Nasrabadi, E. Nasrabadi, and G. R. Mohtashami. A concept of the fuzzy linear regression. In *Proceedings of the 54th Session of the International Statistical Institute*, pages 49–50, Berlin, Germany, August 13–20, 2003.

OTHER
PUBLICATIONS

- [27] A. Boghosian, S. Khaleghi, M. Ghatee, and E. Nasrabadi. Crude oil distribution and storage planning (in persian). *Quarterly Energy Economics Review*, 8:58–70, 2006.
- [28] A. Boghosian and E. Nasrabadi. Forecasting demands for petroleum products: Comparing econometric system of equations and neural networks (in persian). *Quarterly Energy Economics Review*, 10:47–67, 2006.
- [29] A. Boghosian and E. Nasrabadi. Policy-making on gasfuel consumption reduction: Suggestions on price adjustment and quota (in persian). *Energy Economics Surveys*, 2:45–63, 2006.
- [30] M. Modarres, M. M. Nasrabadi, E. Nasrabadi, and G. R. Mohtashami. Fuzzy linear regression analysis: A mathematical programming approach. *Journal of Basic Science (University of Mazandaran)*, 2:39–46, 2003.

TALKS

- On the power of randomization in robust optimization and network interdiction
 - Operations Research Center Seminars, Massachusetts Institute of Technology, May 10, 2012
 - Department of Electrical and Computer Engineering, Boston University, May 30, 2012

Robust and Adaptive Network Flows

- Department of Computer Science, Amirkabir University of Technology, October 8, 2011
- Institut für Mathematik, Technische Universität Berlin, August 25, 2011

A measure theoretic approach to continuous and discrete flows over time

- 24th European Conference on Operational Research 2010, July 11–14, Lisbon, Portugal
- Department of Mathematics, Shahed University, April 13, 2010
- Department of Mathematics, University of Kerman, April 6, 2010
- Department of Computer Science, Amirkabir University of Technology, April 2, 2010

Continuous-time dynamic shortest path problem

- Kolloquium über Kombinatorik, November 13-14, 2009, Otto-von-Guericke-Universität Magdeburg, Germany

Continuous-time dynamic shortest path problem

- COGA Workshop 2008, September 21-24, Schloss Blankensee, Germany.

Fuzzy regression analysis using neural networks

- 6th Iranian Conference on Fuzzy Systems and 1th Islamic World Conference of Fuzzy Systems 2006, May 18-21, Shiraz, Iran

Accident analysis of effects of driving using fuzzy regression

- 6th Iranian Conference on Fuzzy Systems and 1th Islamic World Conference of Fuzzy Systems 2006, May 18-21, Shiraz, Iran

Three models to fuzzy linear regression

- 5th Iranian Conference on Fuzzy Systems and its Applications Sept. 7-9, 2004, Tehran, Iran

Evaluation of fuzzy linear regression models

- 4th Iranian Conference on Fuzzy Sets and its Applications 2003, May 28-29, Babol-sar, Iran

PROFESSIONAL SERVICE

Referee Service

- Mathematical Programming
- IEEE Transactions on Systems, Man, and Cybernetics
- Networks
- Information Sciences
- European Journal of Operational Research
- Journal of Global Optimization
- Soft Computing
- International Journal Uncertainty, Fuzziness and Knowledge-Based Systems
- Iranian Journal of Fuzzy Systems
- IMA Journal of Management Mathematics
- Central European Journal of Operations Research
- Optimization Letters
- Computers & Industrial Engineering
- Information Processing Letters
- Journal of Computational and Applied Mathematics
- International Journal of Systems Science
- Journal of Optimization Theory and Applications
- INOC2009– 4th International Network Optimization Conference
- ATMOS 2011 – 11th Workshop on Algorithmic Approaches for Transportation Modelling, Optimization, and Systems

Conference Service

- Session Chair: “Robust network optimization”, 21th International Symposium on Mathematical Programming (ISMP 2012), Berlin, Germany, August 19–24, 2012.

PROFESSIONAL MEMBERSHIPS

Mathematical Optimization Society (2010–present)
Society for Industrial and Applied Mathematics (2010–present)

WORK EXPERIENCE

Iranian National Oil Company, Tehran, Iran

- Member of the project team of “Portfolio optimization in Petroleum Industry”, Petroleum Ministry, 2004–2007
- Member of project team of “Crude oil storage and transportation”, 2006–2007

Traffic and Transportation Organization, Tehran, Iran

- Member of project team of “Bus Rapid Transit (BRT) network design in Tehran”, 2007

AWARDS & HONORS

Berlin Mathematical School, Berlin, Germany

- Certificate of Excellence for Ph.D Dissertation, February 2010
- Graduate Research Fellowship, 2008–2009

Ministry of Science, Research, and Technology, Tehran, Iran

- Research Scholarship to visit Technische Universität Berlin, 2007–2004

Amirkabir University of University, Tehran, Iran

- Award of Excellence, 2003–2004
- Award of Excellence with distinction (among all PhD students in Iran), 2003

Institute for Studies in Theoretical Physics and Mathematics, Tehran, Iran

- Research Scholarship, 2002–2003

REFERENCES

Available on request.