Curriculum Vitae



Mohammad Reza Peyghami

Professor in Applied Mathematics

(Operations Research and Optimization)

PERSONAL INFORMATION:

• Work: Faculty of Mathematics, K.N. Toosi University of Tech.,

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Vozarra Street, Tehran, IRAN

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PERSONAL DATA:

• Date of Birth: July 06, 1974

• Place of Birth: Miyandoab, Iran

• Marital Status: Married

• Nationality: Iranian

EDUCATION, DEGREES:

• **PhD** in Applied Mathematics, Sharif University of Technology, Tehran, Iran, 2005

Thesis advisor: Prof. N. Mahdavi-Amiri

Thesis title: Two New Proximity Functions for Feasible Interior Point Methods and a show of an Ill-behaved Central Path

• M.Sc. in Applied Mathematics, Sharif University of Technology, Tehran, Iran 1999

Thesis advisor: Prof. N. Mahdavi-Amiri

Thesis title: Sequential System of Linear Equations (SSLE) Method for Solving Nonlinear Optimization Problems

• B.Sc. in Mathematics, Razi University, Kermanshah, Iran 1997

ACTIVITIES AND AWARDS:

- Professor, Department of Applied Mathematics, Faculty of Mathematics, K.N. Toosi University of Technology, 2016-present
- Associate Professor, Department of Applied Mathematics, Faculty of Mathematics, K.N. Toosi University of Technology, 2011-2016
- Assistant Professor, Department of Mathematics, Faculty of Science, K.N. Toosi University of Technology, 2006-2011
- Ranking number 2 among 10000 students taking part in M.Sc. entrance examination, 1997
- Ranking number one among all students, Department of Mathematics, Razi University, Kermanshah, Iran, 1997
- Ranking number one in PhD program, Department of Mathematics, Sharif University of Technology, Tehran, Iran, 2005
- Member of American Mathematical Society, 2016-present
- Member of Iranian Mathematical Society
- Member of Iranian Operations Research Society
- Member of Advanced Optimization Laboratory (AdVOL), McMaster University, Hamilton, Ontario, Canada, 2003-present
- Member of European Atelier for Engineering and Computational Sciences (EUA4X), 2006
- Inspector of Peyman Paya Elevator and Escalator Company, 2005present

• Supervisor of the project entitled "Text to Communication (TTC) System" which was ranked number 3 among all projects in the computer science filed of "8th Khwarizmi Youth Award", December 2006

PROFESSIONAL EXPERIENCE:

- Visiting researcher, Department of Mathematics and Statistics, York University, Toronto, Ontario, Canada, Jan. - Sep. 2016
- Chair of SCOPE (Scientific Computations in OPtimization and Systems Engineering) Research Center, K.N. Toosi University of Technology, 2011-present
- Deputy of Education, Faculty of Mathematics, K.N. Toosi University of Technology, 2013-2016
- Deputy of Education, Faculty of Science, K.N. Toosi University of Technology, 2012-2013.
- Director of Graduate Studies, Faculty of Science, K.N. Toosi University of Technology, 2010-2012
- Research Grant, Iran Khodro Company, Tehran, Iran, 2007-08
- Research Grant, National Iranian Gas Company, Tehran, Iran, 2007-08
- Research fellow, Sharif University of Technology, Tehran, Iran, 1999-2005
- Research fellow, Oil Industry Research Center, Tehran Refinery, Iran, 2003
- Visiting researcher, Department of Computing and Software, McMaster University, Hamilton, Ontario, Canada, Nov. 2003- Sep. 2004
- Training of the Young Mathematicians Association team participated in international math competition for high school students, 1999-2003
- Invited instructor, Department of Mathematical Sciences, Sharif University of Technology, Tehran, Iran, 2000-present
- Invited instructor, Department of Mathematical Sciences, Tehran University, Tehran, Iran, 2005-2006
- Invited instructor, Department of Mathematical Sciences, Shahid Beheshti University, Tehran, Iran, 2005-2006
- Invited instructor, Department of Mechanical and Industrial Engineering, Qazvin Islamic Azad University, Qazvin, Iran, 2008-present
- Invited instructor, Payam Noor University of Tehran, Tehran, Iran, 2009-2010

FIELDS OF INTEREST:

- Interior Point Methods for linear, Semidefinite (SDO) and Second Order Cone Optimization (SOCO) optimization problems
- ABS methods for solving linear and nonlinear system of equations
- Nonlinear Optimization, Quadratic Programming, Convex Optimization
- Combinatorial Optimization
- Data Mining

GAVE COURSES ON THE FOLLOWING SUBJECTS:

- Second order Cone Optimization and Semidefinite Programming (Graduate Course)
- Nonlinear Optimization (Graduate Course)
- Mathematical Modelling (Graduate Course)
- Matrix Computations (Graduate Course)
- Advanced Operations Research (Graduate Course)
- Calculus of Variations (Graduate Course)
- Elementary Optimization
- Numerical Analysis I and II
- Operations Research I and II
- Calculus I and II
- Ordinary Differential Equations
- Graph Theory and its Applications
- Discreet Mathematics

TAKING PART IN CONFERENCES AND WORKSHOPS:

- 31th Annual Iranian Mathematics Conference, Tehran University, Tehran, Iran, August 2000.
- \bullet 34^{th} Annual Iranian Mathematics Conference, Shahrood University, Shahrood, Iran, August 2003.
- McMaster Optimization Day, McMaster University, Hamilton, Ontario, Canada, May 2004.

- Workshop on Large Scale Nonlinear and Semidefinite Programming, University of Waterloo, Waterloo, Ontario, Canada, May 2004.
- The Mathematics of Information Technology and Complex Systems (MITACS), Halifax, Nova Scotia, Canada, June 2004.
- 4th Annual McMaster Optimization Conference: Theory and Applications, (MOPTA04), McMaster University, Hamilton, Ontario, Canada, July 2004.
- First International Conference on Modeling, Simulation and Applied Optimization (ICMSAO'05), American University of Sharjah, Sharjah, UAE, February 2005.
- 36th Annual Iranian Mathematics Conference, Yazd University, Yazd, Iran, September 2005.
- Workshop on Semidefinite Programming and its Applications, National University of Singapore, Singapore, Jan. 2006.
- Workshop on High Order Methods for Industrial Applications, Event14, CRS4, POLARIS, Pula, Cagliari, Italy, June 2006.
- 6th International Congress on Industrial and Applied Mathematics, ICIAM07, Zurich, Switzerland, July 2007.
- 22th European Conference on Operational Research (EURO XXII), Prague, Czech Republic, July 2007.
- 2th Conference on Optimization Methods & Software and 6th EU-ROPT Workshop on Advances in Continuous Optimization (EUROPT-OMS), Prague, Czech Republic, July 2007.
- \bullet 38^{th} Annual Iranian Mathematics Conference, Zanjan, Iran, September 2007.
- First Workshop on Optimization and its Applications in Engineering, K.N. Toosi University of Technology, Tehran, Iran, May 2009 (Organizer).
- Second International Conference of Iranian Operations Research Society, Mazandaran University, Babolsar, Iran, May 2009.
- 40th Annual Iranian Mathematics Conference, Sharif University of Technology, Tehran, Iran, August 2009.
- 7th EUROPT Workshop on Advances in Continuous Optimization (EUROPT09), Remagen, Germany, July 2009.
- \bullet 23 th European Conference on Operational Research (EURO XXIII), Bonn, Germany, July 2009.
- Second Workshop on Optimization and its Applications, K.N. Toosi University of Technology, Tehran, Iran, May 2010 (Workshop Chair).

- Third International Conference of Iranian Operations Research Society, Amirkabir University, Tehran, Iran, May 2010 (Scientific Committee Member).
- 24th Mini Euro Conference (EurOPT2010) "Continuous Optimization and Information-Based Technologies in the Financial Sector", Izmir, Turkey, June 2010 (Stream Organizer).
- Third Workshop on Optimization and its Applications, K.N. Toosi University of Technology, Tehran, Iran, May 2011 (Workshop Chair).
- Fourth International Conference of Iranian Operations Research Society, Guilan University, Rasht, Iran, May 2011 (Scientific Committee Member).
- 42nd Annual Iranian Mathematics Conference, Vali-Asr University of Rafsanjan, Kerman, Iran, September 2011.
- Fourth Workshop on Optimization and its Applications, K.N. Toosi University of Technology, Tehran, Iran, May 2012 (Workshop Chair).
- Fifth International Conference of Iranian Operations Research Society, Azarbaijan University of Tarbiat Moallem, Tabriz, Iran, May 2012 (Scientific Committee Member).
- The Fourth International Conference on Mathematical Sciences (ICM2012), College of Science, Department of Mathematical Sciences, United Arab Emirates University, Al-Ain, UAE, March 2012.
- 43rd Annual Iranian Mathematics Conference, Tabriz University, Tabriz, Iran, September 2012.
- 44th Annual Iranian Mathematics Conference, Ferdowsi University of Mashhad, Mashhad, Iran, August 2013.
- Third International Conference on Numerical Analysis and Optimization, Sultan Qaboos University, Muscat, Oman, January 2014.
- Third International Congress of Mathematicians (ICM2014), Seoul, Korea, August 2014.
- Third International Conference on Nonlinear Analysis and Optimization, Isfahan, Iran, May 2015.
- Workshop on Nonlinear Optimization Algorithms and Industrial Applications-On the occasion of Andrew Conn's 70th birthday, The Fields Institute, Toronto, Ontario, Canada, June 2016.
- 15th EUROPT Workshop on Advances in Continuous Optimization, University of Montreal, Montreal, Canada, July 2017.

PUBLICATIONS:

• Books

- Scientific Editor of the book "Matrix Theory: Basic Results and Technics", Written by Zhang Fuzhen, Translated to Persian by M. Adib and F. Mirzapour, 2007.
- Two New Proximity Functions for Feasible Interior Point Methods and a show of an Ill-behaved Central Path, Ph.D. Thesis, Central Library of Sharif University of Technology, 2005.
- ♦ Limit and Continuity(In Persian), Tehran, Iran, 2002.
- Sequential System of Linear Equations (SSLE) Method for Solving Nonlinear Optimization Problems, M.Sc. Thesis, Central Library of Sharif University of Technology, 1999.

• Journal Papers

- M. Momeni and M. Reza Peyghami: A New Conjugate Gradient Algorithm with Cubic Barzilai-Borwein Stepsize for Unconstrained Optimization, Accepted for publication in Optimization Methods and Software, 2017.
- R. Khanduzi, A. Ebrahimzadeh and M. Reza Peyghami: A modified teaching learning based optimization for optimal control of Volterra integral systems, Accepted for publication in Soft Computing, 2017.
- \diamond S. Fathi Hafshejani, H. Mansouri and M. Reza Peyghami: An interior-point algorithm for $P_*(\kappa)$ -linear complementarity problem based on a new trigonometric kernel function, Accepted for publication in *Journal of Mathematical Modeling*, 2017
- S. Fathi Hafshejani, A. Fakharzadeh Jahromi and M. Reza Peyghami: A unified complexity analysis of interior point methods for semidefinite problems based on trigonometric kernel functions, Accepted for publication in *Optimization*, 2017.
- R. Khanduzi, A.K. Sangaiah and M. Reza Peyghami: Data envelopment analysis and interdiction median problem with fortification for enabling IoT technologies to relieve potential attacks, Accepted for publication in Future Generation Computer Systems, 2017.
- F. Arzani and M. Reza Peyghami: A new dwindling nonmonotone filter method without gradient information for solving large-scale systems of equations, Accepted for publication in *Iranian Journal of Numerical Analysis and Optimization*, 2017.
- Z. Akbari, M. Reza Peyghami and R. Yousepour: A new nonsmooth trust-region method equipped with a line search for minimizing locally Lipschitz functions, Accepted for publication in Pacific Journal of Optimization, 2017.
- ⋄ D. Ataei Tarzanagh, P. Nazari and M. Reza Peyghami: A non-monotone PRP conjugate gradient method for solving square and

- under-determined systems of equations, Accepted for publication in Computer & Mathematics with Applications, 2016.
- ⋄ A.H. Salehi Shayegan, A. Zakeri and M. Reza Peyghami: An approach based on statistical spline model for Volterra-Fredholm integral equations, Computational Methods for Differential Equations, 4(1): 30–42, 2016.
- F. Arzani and M. Reza Peyghami: An approach based on dwindling filter method for positive definite generalized eigenvalue problem, Accepted for publication in Computational and Applied Mathematics, 2016.
- M. Reza Peyghami and S. Fathi Hafshejani: An interior point algorithm for solving convex quadratic semidefinite optimization problems using a new kernel function, Accepted for publication in Iranian Journal of Mathematical Sciences and Informatics, 2016.
- M. Reza Peyghami, S. Fathi Hafshejani and S. Chen: A primal-dual interior-point method for semidefinite optimization based on a class of trigonometric barrier functions, Accepted for publication in Operations Research Letters, 2016.
- F. Arzani and M. Reza Peyghami: A filtered nonmonotone approach for solving nonlinear systems of equations (in Persian), Accepted for publication in *Journal of Operations Research and its Applications* (ISC version- Persian), 2016.
- S. Fathi Hafshejani, H. Mansouri and M. Reza Peyghami: A large-update primal-dual interior-point algorithm for second order cone optimization based on a new proximity function, Accepted for publication in *Optimization*, 2015.
- D. Ataee Tarzanagh, M. Reza Peyghami and F. Bastin: A new nonmonotone adaptive retrospective trust region method for unconstrained optimization problems, To appear in *Journal of Op*timization Theory and Applications, 2015.
- Z. Saeidian and M. Reza Peyghami: An adaptive nonmonotone trust region method for unconstrained optimization problems based on a simple subproblem, To appear in *Iranian Journal* of Numerical Analysis and Optimization, 2015.
- ◇ Z. Saeidian, M. Reza Peyghami, M. Habibi and S. Ghasemi: A new trust-region method for solving systems of equalities and inequalities, Computational & Applied Mathematics, 2015. doi:10.1007/s40314-015-0257-9.
- D. Ataee Tarzanagh and M. Reza Peyghami: A new regularized limited memory BFGS-type method based on modified secant conditions for unconstrained optimization problems, *Journal of Global Optimization*, 2015. doi:10.1007/s10898-015-0310-7.
- K. Amini, M. Reza Peyghami, M. Kimiaei and M. Ahookhosh:
 A limited memory adaptive trust-region approach for large-scale

- unconstrained optimization, To appear in the Bulletin of the Iranian Mathematical Society, 2015.
- F. Arzani and M. Reza Peyghami: A new nonmonotone filter Barzilai-Borwein method for solving unconstrained optimization problems, *International Journal of Computer Mathematics*, 2014. doi:10.1080/00207160.2015.1009903.
- M. Reza Peyghami and D. Ataee Tarzanagh: A relaxed non-monotone adaptive trust region method for solving unconstrained optimization problems, Computational Optimization and Applications, 61:321–341, 2015.
- M. Reza Peyghami, H. Ahmadzadeh and A. Fazli: A new class of efficient and globally convergent conjugate gradient methods in the Dai-Liao family, Optimization Methods & Software, 2015. doi:10.1080/10556788.2014.1001511.
- R. Khanduzi, M. Reza Peyghami and H. Maleki: Solving continuous single-objective defensive location problem based on hybrid directed tabu search algorithm, *International Journal of Advanced Manufacturing Technology*, 76:295–310, 2015.
- \diamond S. Fathi Hafshejani, S.M. Fatemi and **M. Reza Peyghami**: An interior-point method for $P_*(\kappa)$ -linear complementarity problem based on a trigonometric kernel function, *Journal of Applied Mathematics and Computing*, 48:111–128, 2015.
- N. Motamedi, M. Hadizadeh and M. Reza Peyghami: A Non-linear Integral Model of Optimal Replacement: Numerical viewpoint, Communications in Numerical Analysis, 2014:cna 00207, 9 pages, 2014. doi:10.5899/2014/cna-00207.
- Z. Akbari, R. Yosefpour and M. Reza Peyghami: A new nonsmooth trust region algorithm for locally Lipschitz unconstrained optimization problems, *Journal of Optimization Theory and Ap*plications, 164:733–754, 2015.
- D. Ataee Tarzanagh, Z. Saeidian, M. Reza Peyghami and H. Mesgarani: A new trust region method for solving least-square transformation of system of equalities and inequalities, Optimization Letters, 9:283–310, 2015.
- ⋄ D. Ataee Tarzanagh, M. Reza Peyghami and H. Mesgarani: A new nonmonotone trust region method for unconstrained optimization equipped by an efficient adaptive radius, Optimization Methods & Software, 29(4):819–836, 2014.
- M. Reza Peyghami and S. Fathi Hafshejani: Complexity analysis of an interior-point algorithm for linear optimization based on a new proximity function, *Numerical Algorithms*, 67:33–48, 2014.
- ⋄ N. Motamedi, M. Reza Peyghami and M. Hadizadeh: A mixed integer nonlinear programming model for the optimal repair-replacement in the firm, Mathematical Social Sciences, 66:366–371, 2013.

- M. Reza Peyghami and R. Khanduzi: Novel MLP Neural Network with Hybrid Tabu Search Algorithm, Neural Network World, 23(3):255–270, 2013.
- M. Reza Peyghami, S. Fathi Hafshejani and L. Shirvani: Complexity of interior-point methods for linear optimization based on a new trigonometric kernel function, *Journal of Computational and Applied Mathematics*, 255:74–85, 2014.
- M. Reza Peyghami, A. Aghaee and H. Mokhtari: A New Mathematical Approach based on Conic Quadratic Programming for the Stochastic Time-Cost Tradeoff Problem in Project Management, International Journal of Industrial Engineering and Production Research, 24(3):177–187, 2013.
- M. Reza Peyghami, M. Hadizadeh and A. Ebrahimzadeh: Some Explicit Class of Hybrid Methods for Optimal Control of Volterra Integral Equations, *Journal of Information and Computing Sci*ence, 7(4):253–266, 2012.
- H. Tavakoli, M. Ahmadian Attari and M. Reza Peyghami: Optimal rate irregular low-density parity-check codes in binary erasure channel, *IET Communications*, 6(13):2000–2006, 2012.
- H. Tavakoli, M. Ahmadian Attari and M. Reza Peyghami: Optimal rate and maximum erasure probability LDPC codes in binary erasure channel, Communication, Control, and Computing (Allerton), 2011 49th Annual Allerton Conference on, Monticello, IL, 2011.
- A. Piltan, S. Salari, D. Mirzahosseini and M. Reza Peyghami: Filter-And-Forward Relay Beamforming in Cognitive Two-Way Relay Networks, *IEEE ANTS 2011*, India, 2011.
- B. Zahedi, M. Ahmadian Attari, K. Mohamed-pour, M. Reza Peyghami,
 M. Norouzi and S. Salari: Pilot-Based Individual Forward and
 Backward Channel Estimation In Amplify-and-Forward OFDM
 Relay Networks, IFIP Wireless Days 2011, Ontario, Canada,
 2011.
- H. Tavakoli, M. Ahmadian Attari and M. Reza Peyghami: Optimal Rate for Irregular LDPC Codes in Binary Erasure Channel, IEEE Information Theory Workshop (ITW 2011), 2011. arXiv:1108.1572v1.
- ⋄ Z. Akbari and M. Reza Peyghami: An Interior-Point Algorithm for Solving Inverse Linear Optimization Problem, *Optimization*, 61(4):373–386, 2011.
- M.S. Beyranvand, M. Reza Peyghami and M. Ghatee: On the Quadratic Model for Unrelated Parallel Machine Scheduling Problem with Restrictive Common Due Date, *Optimization Letters*, 6(8):1897–1911, 2012.
- M. Ahookhosh, K. Amini and M. Reza Peyghami: A nonmonotone trust-region line search method for large-scale unconstrained optimization, Applied Mathematical Modelling, 36:478–487, 2012.

- M. Reza Peyghami and R. Khanduzi: Predictability and forecasting automotive price based on a hybrid train algorithm of MLP neural network, Neural Computing and Applications, 21:125–132, 2012.
- M. Reza Peyghami and R. Khanduzi: A Hybrid Model based on Neural Network and Hybrid Genetic Algorithm for Automotive Price Forecasting, *International Journal of Applied Mathematics* and Computation, 3(3): 158–168, 2011.
- M. Reza Peyghami and K. Amini: A kernel function based interiorpoint methods for solving P_{*}(κ)-linear complementary problem, Acta Mathematica Sinica, Vol. 26(9):1761-1778, 2010.
- M. Reza Peyghami: An interior point method for semidefinite programming based on new kernel functions, Modelling of Engineering and Technological Problems, AIP Conference Proceeding, CP1146:441–456, 2009.
- \diamond M. Reza Peyghami: New proximity and complexity result for $P_*(\kappa)$ -linear complementarity problem, *PAMM Proc. Appl. Math. Mech.*, 7:2060081-2060082, 2007. doi:10.1002/pamm.200701106.
- ⋄ K. Amini and M. Reza Peyghami: Exploring Complexity of Large Update Interior-Point Methods for P_{*}(k)-Linear Complementarity Problem Based on Kernel Function, Applied Mathematics and Computation, 207(2):501–513, 2009.
- M. Reza Peyghami: An Interior-Point Approach for Semidefinite Optimization Using New Proximity Functions, Asia-Pacific Journal of Operational Research, 26(3):365–382, 2009.
- M. Salahi, M. Reza Peyghami and T. Terlaky: New Complexity Analysis of IIPMs for Linear Optimization Based on a Specific Self-Regular Function, European Journal of Operational Research, 186(2):466–485, 2008.
- K. Amini, N. Mahdavi-Amiri and M. Reza Peyghami: Extended Reduced Rank Two Abaffian Update Schemes in the ABS-type Methods, Applied Mathematics and Computation, 185(1):255– 265, 2007.
- K. Amini and M. Reza Peyghami: Complexity Analysis of Interior-Point Methods for Linear Optimization Based on Some Conditions on Kernel Function, Applied Mathematics and Computation, 176:194–207, 2006.
- ♦ A. Deza, E. Nematollahi, M. Reza Peyghami and T. Terlaky: The Central Path Visits all the Vertices of the Klee-Minty Cube, Optimization Methods & Software, 21(5):849–863, 2006.
- K. Amini and M. Reza Peyghami: An Interior Point Method for Linear Programming Based on a Class of Kernel Functions, Bul-letin of the Australian Mathematical Society, 71:139–153, 2005.

- K. Amini and M. Reza Peyghami: An Interior Point Algorithm
 for Linear Optimization Based on a New Kernel Function, The
 Southeast Asian Bulletin of Mathematics, 32:1–18, 2005.
- K. Amini, N. Mahdavi-Amiri and M. Reza Peyghami: ABS-type Methods for Solving Full Row Rank Linear Systems Using a New Rank Two Update, Bulletin of the Australian Mathematical So-ciety, 69:17–34, 2004.

• Papers in Conferences

- ABS-type Methods for Solving Full Row Rank Linear Systems Using a New Rank Two Update, K. Amini, N. Mahdavi-Amiri, M.R. Peyghami, 34th Annual Iranian Mathematics Conference, Shahrood University, Shahrood, Iran, August 2003.
- Extended Reduced Abaffian Rank Two Update Schemes in the ABS Methods, K. Amini, N. Mahdavi-Amiri, M.R. Peyghami, The Mathematics of Information Technology and Complex Systems (MITACS), Halifax, Nova Scotia, Canada, June 2004.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, A. Deza, E. Nematollahi, R. Peyghami and T. Terlaky First International Conference on Modeling, Simulation and Applied Optimization (ICMSAO'05), American University of Sharjah, Sharjah, UAE, February 2005.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, A. Deza, E. Nematollahi, R. Peyghami and T. Terlaky 36th Annual Iranian Mathematics Conference, Yazd University, Yazd, Iran, September 2005.
- ♦ An Efficient Way to Solve the Newton Systems of Primal-Dual Infeasible Interior Point Methods Using ABS Algorithms, M. Khorramizadeh, 2th Conference on Optimization Methods & Software and 6th EUROPT Workshop on Advances in Continuous Optimization (EUROPT-OMS), Prague, Czech Republic, July 2007.
- \diamond A Kernel Function Based Interior-Point Methods for Solving $P_*(\kappa)$ Linear Complementarity Problem, 22^{th} European Conference on
 Operational Research (EURO XXII), Prague, Czech Republic,
 July 2007.
- \diamond A Kernel Function Based Interior-Point Methods for Solving $P_*(\kappa)$ Linear Complementarity Problem, 6^{th} International Congress on
 Industrial and Applied Mathematics, ICIAM07, Zurich, Switzerland, July 2007.
- ♦ Image Denoising Using Interior-Point Methods, 38th Annual Iranian Mathematics Conference, Zanjan, Iran, September 2007.
- A Predictor-Corrector Interior-Point Methods for Solving Sufficient Linear Complementarity Problems in the Wide Neighborhood of Central Path, 38th Annual Iranian Mathematics Conference, Zanjan, Iran, September 2007.

- Semidfinite Optimization and its Application in the least square orthogonalization vectors 40th Annual Iranian Mathematics Conference, Sharif University of Technology, Tehran, Iran, September 2009.
- Optimization of Gas Transmission probelm in a network by using an extension of the Simplex method, 40th Annual Iranian Mathematics Conference, Sharif University of Technology, Tehran, Iran, September 2009.
- Maximizing Expected Return in Portfolio with New Constrains,
 40th Annual Iranian Mathematics Conference, Sharif University
 of Technology, Tehran, Iran, September 2009.
- Solving inverse linear programming problem using interior point like framework, 40th Annual Iranian Mathematics Conference, Sharif University of Technology, Tehran, Iran, September 2009.
- Time-cost trade off problem in pert networks and SDP relaxation, EURO23, Bonn, Germany, 2009.
- Cost minimization of the gas transmission problem through a network of pipelines using an extension of the Simplex method, Second Iranian Pipe and Pipeline Conference, Tehran, Iran, 2009.
- $\diamond\,$ New proximity and semidefinite programming, EUROPT2009, Remagen, Germany, 2009.
- ♦ Inverse problem of linear programming with minimum variation in right hand side vector, EURO24, Lisbon, Portugal, 2010.
- An approach based on conic optimization and Monte Carlo technique for time-cost trade-off problem, Mini Euro Conference EurOPT2010, Izmir, Turkey, 2010.
- \diamond On the inverse linear programming problem, \mathcal{I}^{rd} International Conference of Iranian Operations Research Society, Tehran, Iran, 2010.
- ♦ Iterative methods for solving Volterra optimal control problems, 3rd International Conference of Iranian Operations Research Society, Amirkabir University of Technology, Tehran, Iran, 2010.
- An adaptive retrospective trust region method for unconstrained optimization, 41st Annual Iranian Mathematics Conference, Urmia University, Urmia, Iran, September 2010.
- ♦ The optimal replacements of machines in continuous time using integral equation approach, 41st Annual Iranian Mathematics Conference, Urmia University, Urmia, Iran, September 2010.
- Convex Quadratic Reformulations for Unrelated Parallel Machines Scheduling Problems, 4th International Conference of Iranian Operations Research Society, Rasht, Guilan, Iran, 2011.
- A Hybrid Metaheuristic Algorithm for Solving Continuous Defensive Location Problem, 4th International Conference of Iranian Operations Research Society, Rasht, Guilan, Iran, 2011.

- A new nonmonotone conic trust-region method for unconstrained optimization problems, 4th International Conference of Iranian Operations Research Society, Rasht, Guilan, Iran, 2011.
- Numerical Method for an Optimal Repair Replacement Model in Mathematical Economics, 3rd Conference on Financial Mathematics & Applications, Semnan, Iran, 2013.

TALKS

- Sequential System of Linear Equations (SSLE) Method for Solving Nonlinear Optimization Problems, Tabriz University, Tabriz, Iran, 2000.
- ABS-type Methods for Solving Full Row Rank Linear Systems Using a New Rank Two Update, 34th Annual Iranian Mathematics Conference, Shahrood University, Shahrood, Iran, August 2003.
- An $O(\sqrt{n}L)$ Iteration Primal-Dual Interior Point Method for Monotone Linear Complementary Problem based on Large Neighborhoods and Large Updates, McMaster University, Hamilton, Ontario, Canada, 2004.
- ℓ_p -Norm Programming, joint talk with Oleksandr Romanko, McMaster University, Hamilton, Ontario, Canada, 2004.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, *Institute of Physics and Theoretical Mathematics*, Tehran, Iran, January 2005.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, First International Conference on Modeling, Simulation and Applied Optimization (ICMSAO'05), American University of Sharjah, Sharjah, UAE, February 2005.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, 36th
 Annual Iranian Mathematics Conference, Yazd University, Yazd, Iran,
 September 2005.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, Tehran University, Tehran, Iran, October 2005.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, Shahid Beheshti University, Tehran, Iran, December 2005.
- The Central Path Visits all the Vertices of the Klee-Minty Cube, Tarbiat Modarres University, Tehran, Iran, December 2006.
- An Efficient Way to Solve the Newton Systems of Primal-Dual Infeasible Interior Point Methods Using ABS Algorithms, 2th Conference on Optimization Methods & Software and 6th EUROPT Workshop on Advances in Continuous Optimization (EUROPT-OMS), Prague, Czech Republic, July 2007.

- A Kernel Function Based Interior-Point Methods for Solving $P_*(\kappa)$ Linear Complementarity Problem, 22^{th} European Conference on Operational Research (EURO XXII), Prague, Czech Republic, July 2007.
- Image Denoising Using Interior-Point Methods, 38th Annual Iranian Mathematics Conference, Zanjan, Iran, September 2007.
- Time-cost trade off problem in pert networks and SDP relaxation, EURO23, Bonn, Germany, July 2009.
- New proximity and semidefinite programming, *EUROPT2009*, Remagen, Germany, 2009.
- An approach based on conic optimization and Monte Carlo technique for time-cost trade-off problem, Mini Euro Conference EurOPT2010, Izmir, Turkey, 2010.
- On the Inverse Linear Optimization Problem in p-Norm, *The Fourth International Conference on Mathematical Sciences (ICM2012)*, Al-Ain, UAE, 2012.
- A new nonmonotone trust region method, 44th Annual Iranian Mathematics Conference, Mashhad, Iran, August 2013.
- A new derivative-free nonmonotone line search for solving large-scale symmetric nonlinear equations, *Third International Conference on Numerical Analysis and Optimization*, Muscat, Oman, January 2014.
- An adaptive nonmonotone trust region method for solving systems of equalities and inequalities, *Third International Congress of Mathematicians (ICM2014)*, Seoul, Korea, August 2014.
- On the exploiting nonmonotone techniques and adaptive strategies in the framework of trust region methods, *Third International Conference* on *Nonlinear Analysis and Optimization*, Isfahan, Iran, May 2015.
- On the line search and trust-region methods in unconstrained optimization, *Seminar Series in Applied Mathematics*, Amirkabir University, Tehran, Iran, May 2015.
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LANGUAGES:

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