

CURRICULUM VITÆ

Rahman Farnoosh

PERSONAL INFORMATION

School: Mathematics

Department: Department of Applied Mathematics

Affiliation: Associated Professor

Address: School of Mathematics, Iran University of Science and Technology, Narmak, Tehran-16846, Iran

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Birth Date: 23 Apr 1960

Birth Place: Tehran, Iran

Marital Status: Married

EDUCATION

Date	Institution	Obtained Qualification
1978-1986	Industrial Sharif University, Tehran, Iran	B.Sc. in Applied Mathematics
1986-1989	Shiraz University, Shiraz, Iran	M.Sc. in Statistics
1996-2000	Leeds University, Leeds, UK	Ph.D in Statistics

EXPERIENCES

RESEARCH

- **Subject:** Statistics and Applied Mathematics
- **Titel:** Numerical Algorithm based on Monte Carlo method
- **Date:** 2007-2008
- **Researchers:** R. Farnoosh
- **Organization:** Department of Mathematics, Faculty of Mathematics
- **Client:** Iran University of Science and Technology



- **Subject:** Applications of Probability
- **Titel:** Image Segmentation using Voronoi Polygons and Markov Chain Monte Carlo method
- **Date:** 2005-2006
- **Researchers:** R.Farnoosh
- **Organization:** Department of Applied Mathematics, Faculty of Mathematics
- **Client:** Iran University of Science and Technology



- **Subject:** Statistics
- **Titel:** A Modified Mesear of Kurtosis for Heavy Tail Distributions
- **Date:** 2006-2007
- **Researchers:** R. Farnoosh
- **Organization:** Department of Applied Mathematics, Faculty of Mathematics
- **Client:** Iran University of Science and Technology



- **Subject:** Applications of Probability
- **Titel:** Image Segmentation using Voronoi Polygons and Markov Chain Monte Carlo method
- **Date:** 2005-2006
- **Researchers:** R.Farnoosh
- **Organization:** Department of Applied Mathematics, Faculty of Mathematics
- **Client:** Iran University of Science and Technology



- **Subject:** Applications of Probability
- **Titel:** Solution of stochastic Differential euation Based on Monte Carlo Method
- **Date:** 2004-2005
- **Researchers:** R. Farnoosh
- **Organization:** Department of Applied Mathematics, Faculty of Mathematics
- **Client:** Iran University of Science and Technology



- **Subject:** Statistics and Probability
- **Titel:** A Monte Carlo Variance Reduction Method Based on Control Variates
- **Date:** 2008-2009
- **Researchers:** R.Farnoosh
- **Organization:** Department of Applied Mathematics, Faculty of Mathematics
- **Client:** Iran University of Science and Technology

Iran University of Science and Technology:

- Advanced Simulatin, [5 credits]/ Ph.D Course
- Stochastic differential equations, [3 credits]/ Ph.D Course
- Theory of Probability, [5 credits]/ Ph.D Course
- Applications of Monte Carlo methods, [3 credits]/ Ph.D Course

- Theory of Probability (1) and (2), [3 credits]/ M.Sc Course
- Stochastic Processes and Applications, [3 credits]/ M.Sc Course
- Selected Topics in Advanced Probability, [3 credits]/ M.Sc Course
- Engineering Probability and Statistics, [3 credit]/ M.Sc Course

- Probability and Statistics, [10 credits]/ B.Sc Course
- Time Sries, [5 credits]/ B.Sc Course
- Ordinary Differential Equations, [7 credits]/ B.Sc Course
- Numerical Computations, [5 credits]/ B.Sc Course
- Stochastic Processes, [10 credits]/ B.Sc Course
- Engineering Probability and Statistics, [20 credit]/ B.Sc Course

SCIENTIFIC SOCIETIES MEMBERSHIP

1. Member of Iranian Mathematics Society
2. Member of Iranian Statistics Society

LANGUAGE SKILLS

English (Advanced)

COMPUTER KNOWLEDGE

Micrisoft Word XP
Micrisoft Powerpoint XP
Matlab 7
Programming With C
Programming With Fortran
Spss 13.01
Wi- Fm (1)

THESIS AND DISSERTATION

SUPERVISORS: Ph.D DEGREES

1. Degree and field of study: **Ph.D** in “Statistics”
Titel: “Image Segmentation using of Gaussian Mixture Model”
Student name: Behnam Zarpak
Date: 2004-2008 (**Iran University of Science and Technology**)
2. Degree and field of study: **Ph.D** in “Statistics”
Titel: “Using of Simulation Method Such as MCMC for Improving the Shape Parameters”
Student name: Hedyeh Jafarpour
Date: 2000-2005 (**Slamic Azad University of Researchers and Sciences Branch**)
3. Degree and field of study: **Ph.D** in “Statistics”
Titel: “Probabilistic and Fuzzy Metric Spaces”
Student name: Parvin Azhdari
Date: 2002-2008 (**Slamic Azad University of Researchers and Sciences Branch**)
4. Degree and field of study: **P.hD** in “Statistics”
Titel: “Some Theoretical Results of the Superaadditive Galton-Watson Branching Processes”
Student name: Zohreh Zarabi-Zadeh
Date: 2003-2008 (**Slamic Azad University of Researchers and Sciences Branch**)
5. Degree and field of study: **Ph.D** in “Applied Mathematics”
Subject: “Numerical solution of Stochastic Differential Equations”
Student name: Morteza Ebrahimi
Date: 2005-2009 (**Iran University of Science and Technology**) (Current)
6. Degree and field of study: **Ph.D** in “Statistics”
Titel: “Statistical method for solving inverse problem”
Student name: Parisa Nabati
Date: 2008-2012 (**Iran University of Science and Technology**) (Current)
7. Degree and field of study: **Ph.D** in “Applied Mathematics”
Subject: “Semi-Parametric Models”
Student name: Ali Ghasemian
Date: 2008-2012 (**Iran University of Science and Technology**) (Current)
8. Degree and field of study: **Ph.D** in “Statistics”
Titel: “Stochastic Differential Equations and its Application in Insurance”
Student name: Ramazan Rezaean
Date: 2007-2011 (**Slamic Azad University of Researchers and Sciences Branch**)
9. Degree and field of study: **Ph.D** in “Statistics”
Titel: “Applications of Probability in Insurance”
Student name: Parvin Azhdari
Date: 2006-2010 (**Slamic Azad University of Researchers and Sciences Branch**)

SUPERVISORS: M.Sc DEGREES

1. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Solution of Partial differential equations based on Monte Carlo Method”
Student name: Zahra allaei
Date: 2005-2007 (**Iran University of Science and Technology**)
2. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Solution of Partial differential equations Using Feynman-Kac Formula and Numerical Solution of Stochastic Differential equations”
Student name: Reza Gholipour
Date: 2005-2007 (**Iran University of Science and Technology**)
3. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Solution of Integral equations based on Monte Carlo Method”
Student name: Taraneh Talaei
Date: 2005-2007 (**Iran University of Science and Technology**)
4. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Solution of Large Sparse System of Linear Algebraic Equations based on Monte Carlo Method”
Student name: Mariam Atari
Date: 2005-2007 (**Iran University of Science and Technology**)
5. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Hedging and Pricing of an Option With a Correlated Asset Through Solving a Nonlinear PDE”
Student name: Elaheh Mokhtarnejad
Date: 2005-2007 (**Iran University of Science and Technology**)
6. Degree and field of study: **M.Sc** in “Probability and Statistics”
Subject: “Modelisation Markovien Image and its Application in Image Segmentation”
Student name: Zeinab Amir Abadi
Date: 2006-2008 (**Iran University of Science and Technology**)
7. Degree and field of study: **M.Sc** in “Probability and Statistics”
Subject: “Image Reconstruction by Using 2D Autoregressive Models”
Student name: Behjat Shahsavari
Date: 2006-2008 (**Iran University of Science and Technology**)
8. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Diffusion and Image Processing”
Student name: Mahdie Sattari
Date: 2004 (**Iran University of Science and Technology**)
9. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Oil diffusion equations and their applications”
Student name: Maryam mehrparvar
Date: 2005 (**Iran University of Science and Technology**)
10. Degree and field of study: **M.Sc** in “Pure Mathematics”

Subject: “Studying the Qualitative Behaviour of Trajectories of the Lienard System”
Student name: Elmira Nabizadeh Morsalfard
Date: 2005 (**Iran University of Science and Technology**)

11. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Mont carlo method for solve integral and Acceleration in quasi monte carlo method”
Student name: Mehdi babli
Date: 2007 (**Iran University of Science and Technology**)
12. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Variance Reduction Method Based on Sensitivity Derivatives and Their Applications”
Student name: tarane tallae
Date:2007 (**Iran University of Science and Technology**)
13. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Application ofMonte Carlo and quasi Monte Carlo methods for solving heat equation and Fredholm integral equations of the second kind”
Student name: mahboubeh allaei
Date: 2007 (**Iran University of Science and Technology**)
14. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Determination Inverse Matrix by Monte Carlo Method And Used it for Solving Elliptic Partial Differential Equation”
Student name: Maryam Attary Dezfully
Date:2007 (**Iran University of Science and Technology**)
15. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Hedging and pricing of an option with a correlated asset through solving a Nonlinear PDE”
Student name: Elaheh Mokhtarnejad
Date: 2007 (**Iran University of Science and Technology**)
16. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Complexity of the Monte Carlo Method in Comparison with Iterative Methods for Solving Systems of Linear Equations”
Student name: Amir Hossein Sharifpour
Date: 2008 (**Iran University of Science and Technology**)
17. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “A goodness of fit test for copula Based on Rosenblatt transformation”
Student name: Manizheh Goodarzi
Date: 2007 (**Iran University of Science and Technology**)
18. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Copula and their application in modeling the extent of wheat production in Iran”
Student name: Somayeh Alamdarlooi
Date: 2008 (**Iran University of Science and Technology**)
19. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “The asymmetric n-player gambler’s ruin problem with equal initial fortunes”
Student name: Hamid Reza Farazmand
Date: 2009 (**Iran University of Science and Technology**)

20. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Bayesian Inference for Logistic Regression”
Student name: Marjan Pishbin
Date: 2009 (**Iran University of Science and Technology**)
21. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Modelisation Markovien image & its application in Image Segmentation”
Student name: Zeinab AmirAbadi
Date: 2008 (**Iran University of Science and Technology**)
22. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Image reconstruction by using 2D autoregressive models”
Student name: Behjat Shahsavari
Date: 2008 (**Iran University of Science and Technology**)
23. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Image restoration by use of EM algorithm and BP algorithm”
Student name: Ommolbanin Gohari
Date: 2009 (**Iran University of Science and Technology**)
24. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Semiparametric Estimation of Fixed Effects Panel Data Varying Coefficient Models”
Student name: Sh. Goodarzi
Date: 2010 (**Iran University of Science and Technology**)
25. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Nonparametric Regression Estimation of Panel Data Model With Fixed Effects”
Student name: Maryam Alighardashi
Date: 2010 (**Iran University of Science and Technology**)
26. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Introduction of Autoregressive Models with an Image Segmentation Application”
Student name: Nesa Nemati
Date: 2011 (**Iran University of Science and Technology**)
27. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Nonparametric regression modeling via the lasso-type regularization”
Student name: Mohadese Maleki
Date: 2011 (**Iran University of Science and Technology**)
28. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Nonlinear regression models based on scale mixtures of skew-normal distributions”
Student name: Setareh Dalirian Fard
Date: 2011 (**Iran University of Science and Technology**)
29. Degree and field of study: **M.Sc** in “Applied Mathematics”
Subject: “Kalman Filtering And Smoothing For Time Series Models And Volatility”
Student name: Robabeh Malakpour
Date: 2012 (**Iran University of Science and Technology**)
30. Degree and field of study: **M.Sc** in “Mathematical statistics”
Subject: “Modelling Time series with k-factor GIGARCH process”

Student name: Zahra sadat Nayeri

Date: 2012 (Iran University of Science and Technology)

31. Degree and field of study: M.Sc in “Mathematical statistics”

Subject: “Measuring the Impact of Non-Ignorability in Count Panel Data with Non-Monotone Non-Response by Bayesian Approach”

Student name: S. A. Feyzollahoghi

Date: 2013 (Iran University of Science and Technology)

32. Degree and field of study: M.Sc in “Mathematical statistics”

Subject: “Comparing between the Moment and Semi-parametric Methods for Nonlinear Time series Models”

Student name: M. Daneshvar

Date: 2013 (Iran University of Science and Technology)

33. Degree and field of study: M.Sc in “Mathematical statistics”

Subject: “Modeling IN timeseries of counts with INGARCH model”

Student name: Fateme Seilsefoor

Date: 2013 (Iran University of Science and Technology)

34. Degree and field of study: M.Sc in “Applied Mathematics”

Subject: “Solution of Partial differential equations based on Monte Carlo Method”

Student name: Zahra allaei

Date: 2005-2007 (Iran University of Science and Technology)

FARSI PUBLICATIONS

THESES

1. Limiting The Risk of Bayes and Empirical Bayes, M.Sc Theses, School of Mathematics and Statistics, Shiraz University, Shiraz, Iran, 1989.
Supervised by prof. Ahmad Parsian

ENGLISH PUBLICATIONS

THESES

1. Statistical Analysis of Nearly Regular Point Patterns and Images, Ph.D Theses, Department of Statistics, University of Leeds, Leeds, UK, 2000.
Supervised by prof. Charles C. Taylor and Prof. Ian Dryden

SEMINARS (Talks)

1. R. Farnoosh, M. Ebrahimi, T. Talaei, (2007), A Monte Carlo variance reduction method in application to Burgers equation based on control variates, 6th Seminar on Probability and Stochastic Processes, Babolsar, Iran.
2. B. Zarpak, R. Farnoosh, (2005), Image Segmentation Using Spatially Correlated Gaussian Mixture Models, 5th Seminar on Probability and Stochastic Processes, Brjand, Iran.

CONFERENCES and Other PRESENTATION

1. R. Farnoosh, B. Zarpak, Image Segmentation using Gaussian Mixture Model, IUST International Journal of Engineering Science, Mathematics and Industrial Engineering Special Issue, No. 1-2, Vol. 19, 2008.
2. R. Farnoosh, M. Ebrahimi, A numerical algorithm based on iterative Monte Carlo method to solution of a parabolic partial differential equation, 37-th Annual Iranian Mathematics, Iran, Tabriz, 2-6 September 2006, Azarbaijan Tarbiat Moallem University.
3. R. Farnoosh, H. Jafarpour, Shape Parameters of Laplace Distribution Function and Estimation of Fourth Central Moment, Transaction on Mathematics, Issue 1, Vol. 5, January 2006.
4. H. Jafarpour, R. Farnoosh, A Kurtosis Measure for Heavy Tail Symmetric Densities, Transaction on Mathematics, Issue 1, Vol. 5, January 2006.
5. R. Farnoosh, B. Zarpak, Image Restoration with Gaussian Mixture Models, Transaction on Mathematics, Issue 4, Vol. 3, October 2004.
6. R. Farnoosh, B. Zarpak, A Probabilistic Approach for Solving Partial differential Equations, 14th Seminar on Mathematics Analysis and its Applications, February 4-5, 2004.
7. R. Rezaeyan, R. Farnoosh, "Paper: A Comparison Between Gaussian and Poissonian Noise in the Numerical Solution of SDE",
8. R. Rezaeyan, R. Farnoosh, "Paper: Stochastic Differential Equations and Markov Processes in the Modelling of Electrical Circuits",
9. Z. Zarabi, R. Farnoosh, "Paper: Estimate of Extinction Probability of Bisexual Galton-Watson Branching Process",
10. R. Farnoosh, H. Rezazadeh, A. Sobhani, D. Ebrahimi Bagha, "Paper: Numerical Solution of Second-Order Stochastic Differential Equations With Gaussian Random Parameters",
11. R. Farnoosh, P. Nabati, "Paper: A Stochastic Perspective to Random Ship Heave Motion Based on Different Noises",
12. R. Farnoosh, J. Ghasemian, F. O. Solaymani, "Paper: A Modification on Ridge Estimation for Fuzzy Nonparametric Regression",
13. R. Farnoosh, A. Hajrajabi, "State space modeling of RL electrical circuit and estimation of parameters via Maximum likelihood and Bayesian approaches",
14. R. Farnoosh, A. Hajrajabi, "Parameter estimation of stochastic RL electrical circuit based on the state space model",
15. R. Farnoosh, M. Hajebi, E. Hajebi, "Evaluation of Two Popular Models of Volatility on Financial Time Series",
16. R. Farnoosh, H. Rezazadeh, J. Damirchi, "Numerical solution of Heun equation via linear stochastic differential equation",

17. R Farnoosh, HR Rezazadeh, J Damirchi, "A Survey on exact analytical and numerical solutions of some SDEs based on martingale approach and changing variable method",
18. R Farnoosh, P Nabati, "Modelling RLC Electrical Circuits by Stochastic Differential Equations".

JOURNALS

PAPERS PUBLISHED IN ISI's JOURNALS

1. R Farnoosh, M Aalaei, M Ebrahimi "A Semiparametric Estimation for Regression Functions in the Partially Linear Autoregressive Time Series Model" *Stochastics An International Journal of Probability and stochastic*, 2014,
2. R Farnoosh, M Aalaei, "A Stochastic Algorithm to Solve Multiple Dimensional Fredholm Integral Equations of the Second Kind", *Bulletin of the Iranian Mathematical Society* 40 (2), 2014,
3. A Nademi, R Farnoosh, "Mixtures of autoregressive-autoregressive conditionally heteroscedastic models: semi-parametric approach", *Journal of Applied Statistics* 41 (2), 275-293, 2014,
4. R Farnoosh, A Hajrajabi, " Estimation of parameters in the state space model of stochastic RL electrical circuit", *Compel-The international journal for computation and mathematics in*, 2013,
5. R Farnoosh, P Nabati, " A stochastic perspective to random ship heave motion based on different noises", *Iranian Journal of Science and Technology Transaction A-Science* 37 (A3), 211-217, 2013,
6. SJ Mortazavi, R Farnoosh, " The Prediction Nonlinear-Autoregressive Model for Annual Ring Width of *Pinus Eldarica* with Semi-Parametric Approach", *World Applied Sciences Journal* 26 (6), 783-787, 2013,
7. R Farnoosh, P Nabati, A Hajirajabi, " Parameters estimation for RL electrical circuits based on least square and Bayesian approach", *Compel-The international journal for computation and mathematics in*, 2012,
8. Z Rahnamaei, N Nematollahi, R Farnoosh, " The Location-Scale Mixture Exponential Power Distribution: A Bayesian and Maximum Likelihood Approach", *Journal of Applied Mathematics* 2012,
9. R Farnoosh, J Ghasemian, OS Fard, " A modification on ridge estimation for fuzzy nonparametric Regression", *Iranian Journal of Fuzzy Systems* 9 (2), 75-88, 2012,
10. R Farnoosh, J Ghasemian, O Solaymani Fard, " Integrating Ridge-type regularization in fuzzy nonlinear regression", *Computational & Applied Mathematics* 31 (2), 323-338, 2012,
11. R Farnoosh, SJ Mortazavi, " A semiparametric method for estimating nonlinear autoregressive model with dependent errors", *Nonlinear Analysis: Theory, Methods & Applications* 74 (17), 6358-6370, 2011,
12. R Farnoosh, P Nabati, R Rezaeyan, M Ebrahimi, " A stochastic perspective of RL electrical circuit using different noise terms", *Compel-The international journal for computation and mathematics in*, 2011,
13. R Farnoosh, M Ebrahimi, "Monte Carlo simulation via a numerical algorithm for solving a nonlinear inverse problem", *Communications in Nonlinear Science and Numerical Simulation* 15 (9), 2436-2444, 2010,
14. R Farnoosh, A Fallah, A Hajrajabi, "Bayesian Estimation of Penalty Function in Homogeneity Test of Mixture Models", *Journal of Statistical Sciences* 2 (2), 229-243, 2009,

15. R Farnoosh, A Aghajani, P Azhdari, "Contraction theorems in fuzzy metric space", *Chaos, Solitons & Fractals* 41 (2), 854-858, 2009,
16. R Farnoosh, E Morteza, "Monte Carlo simulation for solving Fredholm integral equations", *Kybernetes* 38 (9), 1621-1629, 2009,
17. R Farnoosh, M Ebrahimi, M Attari, "Complexity of Monte Carlo method in application to Fredholm integral equations of the second kind.", *Journal of Advanced Research in Scientific Computing* 1 (1), 2009,
18. Farnoosh, R. and Ebrahimi, M. (2008), "Monte Carlo method for solving Fredholm integral equations of the second kind", *Applied Mathematics and Computation*, Vol. 195, Issue 1, pp. 309-315.
19. Morteza Ebrahimi, Rahman Farnoosh and Somayeh Ebrahimi, Biological applications and numerical solution based on Monte Carlo method for a two-dimensional parabolic inverse problem, *Applied Mathematics and Computation*, (2008)
20. R Farnoosh, B Zarpak, "Image segmentation using Gaussian mixture model", *IUST International Journal of Engineering Science* 19 (1), 29-32, 2008,
21. R. Farnoosh, M. Ebrahimi, Monte Carlo method via a numerical algorithm to solve a parabolic problem, *Applied Mathematics and Computation*, 190, (2007) 1593-1601.
22. IL Dryden, R Farnoosh, CC Taylor, "Image segmentation using Voronoi polygons and MCMC, with application to muscle fibre images", *Journal of Applied Statistics* 33 (6), 609-622, 2006,
23. E Pasha, R Farnoosh, A Fatemi, "Fuzzy entropy as cost function in image processing", *Proceedings of the 2nd IMT-GT Regional Conference on Mathematics, Statistics ...*, 2006,
24. CC Taylor, IL Dryden, R Farnoosh, "The K-Function for Nearly Regular Point Processes", *Biometrics* 57 (1), 224-231, 2001,
25. Monte Carlo simulation via a numerical algorithm for solving a nonlinear inverse problem, *Communications in Nonlinear Science and Numerical Simulation*, Vol. 15 (2009), 2436-2444.

OTHER PAPERS

1. R Farnoosh, M Hajebi, SJ Mortazavi, "A Semiparametric Estimation for Regression Functions in the Partially Linear Autoregressive Time Series Model", *Applications & Applied Mathematics* 9 (2), 2014,
2. R Farnoosh, H Rezazadeh, A Sobhani, D Ebrahimibagha, "Numerical solution of second-order stochastic differential equations with Gaussian random parameters", *Journal of Linear and Topological Algebra* 2 (4), 2014,
3. R Farnoosh, N Nematollahi, Z Rahnamaei, A Hajrajabi, "A Family of Skew-Slash Distributions and Estimation of its Parameters via an EM Algorithm", *Journal of Iranian Statistical Society* 12 (2), 271-292, 2013,
4. R Farnoosh, R Khanjani, A Chaji, " Stochastic FDH model with various returns to scale assumptions in data envelopment analysis", *Journal of Advanced Research in Applied Mathematics* 3 (11), 21-32, 2011,
5. R Rezaeyan, R Farnoosh, " Stochastic Differential Equations and Markov Processes in the Modeling of Electrical Circuits", *Journal of Mathematical Extension*, 2010,
6. R Rezaeyan, R Farnoosh, " Stochastic Differential Equations and Application of the Kalman-Bucy Filter in the Modeling of RC Circuit", *Applied Mathematical Sciences* 4 (23), 1119-1127, 2010,
7. R Farnoosh, R Rezaeyan, "Numerical solution and estimation parameters of stochastic differential equation the Yule process.", *Proceedings of World Academy of Science: Engineering & Technology* 50, 2009,

8. R Farnoosh, M Ebrahimi, M Aalaei, "Quasi-Monte Carlo method via a numerical algorithm to solve Fredholm integral equations", Journal of Advanced Research in Applied Mathematics 1 (2), 2009,
9. P Azhdari, R Farnoosh, "Fixed point theorems for the generalized C-contractions", Appl. Math. Sci 3, 1265-1273, 2009,
10. H Jafarpour, R Farnoosh, "A Kurtosis Measure for Heavy Tail Symmetric Densities", Wseas Transactions on Mathematics 5 (1), 6, 2006,
11. R Farnoosh, H Jafarpour, "Shape Parameters of Laplace Distribution Function and Estimation of Fourth Central Moment", Wseas Transactions on Mathematics 5 (1), 1, 2006,
12. H Jafarpour, R Farnoosh, "Comparing the kurtosis measures for symmetric-scale distribution functions considering a new kurtosis", Proceedings of the 8th Wseas International Conference on Applied Mathematics ...
13. R Farnoosh, H Jafarpour, "About the shape parameters of the family of Laplace distribution functions", Proceedings of the 8th Wseas International Conference on Applied Mathematics ..., 2005,
14. R Farnoosh, B Zarpak, "Image restoration with gaussian mixture models", Wseas Trans. on Mathematics 4 (3), 2004,

15. رحمان فرنوش، هدیه جعفر پور، یک شاخص کشیدگی برای چگالی های متقارن با دنباله سنگین، مجله گستره، ریاضی سال 1385 جلد 1،

INTERESTS

Interests

- *Financial Mathematic*
- *Probabilistic Approaches for Solving Inverse Diffusion Problems*
- *Image Analysis*
- *Bayesian Data Analysis*
- *Markov Chain Monte Carlo Simulation*
- *Appication of Monte Carlo Method to Solution of:*
 1. *Partial Differential Equations*
 2. *System of Linear Algebraic Equations*
 3. *Integral Equations*
- *Numerical Solution of Stochastic Differential Equation*
- *Mathematical Biology*

REFEREES

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Prof. Dr. A.R. Soltani

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Prf. E. Pasha

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Teacher Training University, Tehran, Iran
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Dr. G.H. Yari

School of Mathematics
Department of Applied Mathematics
Iran University of Science and Technology
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Tel:+98 21 772 40 302
Fax:+98 21 772 40 472
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Dr H. Pezeshk

School of Mathematics
University of Tehran
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Dr. T. Nikazad

Department of Mathematics
Linkoping University
SE-581 83 Linkoping, Sweden
E-mail: tonik@mai.liu.se