

# CURRICULUM VITAE

## Personal

Name **Mojtaba Moradi**  
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## Education

September, 2011  
Ph.D. in Applied Mathematics (Stochastic Processes)  
University of Guilan  
Thesis title: “Galton-Watson processes with Dependent Periods”  
August 2006  
M.Sc. Degree in Applied Mathematics (Stochastic Processes)  
University of Guilan  
July 2003  
BS's degree in Applied Mathematics

## Working experience

March, 2012 - Present  
Assistant Professor  
Department of Statistics,  
University of Guilan.  
September, 2011- March, 2012  
Assistant Professor  
Department of Mathematics,  
University of Semnan.

## Research Interests:

Stochastic Processes

Financial Mathematics

Monte Carlo Simulation

Numerical Methods

Markov Chains

Branching Processes

Integral Equations

## **PUBLICATIONS:**

- 1) Solving nonlinear Fredholm differential integral equations by Monte Carlo method, *Int. J. Appl. Math.*, Vol. 19, No 4 (2006).
- 2) Monte Carlo Algorithms for Solving Fredholm Integral Equations and Fredholm Differential Integral Equations, *Applied Mathematical Sciences*, Vol. 1, 2007, no. 10, 463 – 470.
- 3) Three classifications on branching processes and their behavior for finding the solution of nonlinear integral equations. *Journal of Mathematical Modeling and Analysis*, vol 15, number 3, 2010, pages 371-381.
- 4) Branching Process with Delay at Reproduction Periods, *Journal of Theoretical Statistics*, Volume 30, Number 2, 2010, Pages 145-151
- 5) Period dependent branching processes and its applications in epidemiology, *Infection, Genetics and Evolution*, Volume 11, Issue 6, Pages 1189-1492 (August 2011).
- 6) Branching process with dependent periods and its application for calculating of Fibonacci sequence, *Australian Journal of Basic and Applied Sciences*, 5(9): 2002-2006, 2011
- 7) Monte Carlo Simulation for Period Dependent Branching Process, *Australian Journal of Basic and Applied Sciences*, 5(12): 3146-3148, 2011.
- 8) A new approach on discrete time and period dependent branching process. *International Journal of Applied Mathematics and Computation*, Volume 4(1) 2012 49-56.
- 9) Some Advantage on Diagonal Scaling of Matrices by Genetic Algorithm, *Journal of Applied Mathematics, Statistics and Informatics*, Vol. 8, No.1,49-54, 2012.
- 10) On simulating branching processes using mixed distributions, *Journal of Applied Mathematics, Statistics and Informatics*, Vol. 8, No.1, 75-78, 2012.
- 11) Monte Carlo optimization for reducing the condition number of ill conditioned matrices, *Advances in Computational Mathematics and its Applications*, Vol. 1, No. 3, 169-173, 2012,
- 12) Monte Carlo Simulation for Branching Process with Delay at Reproduction Periods, *Advances in Computer Science and its Applications*, Vol. 1, No. 4, 256-260, 2012.
- 13) Poisson mixed distributions in the branching processes simulation, *Advances in Computer Science and its Applications*, Vol. 1, No. 4, 267-269, 2012.

## **Conference papers:**

- 1) Monte Carlo Simulation in Solving of Non Linear Fredholm Integral Equations, the 1<sup>st</sup> National Conference of Mathematics and its Applications, 5 - 6 march 2008.
- 2) An Application of Branching Process in Computing Fibonacci Sequence, The 10th Iranian Statistical Conference, August 2010.
- 3) On simulating branching processes using mixed distributions, The International Conference on Applied Mathematics, Modeling and Computational Science, Waterloo, Ontario, Canada, July 25-29, 2011.