Curriculum Vitae of

Mousa Golalizadeh Lahi

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Nationality: Iranian
Date of Birth: 23/09/1972
Place of Birth: Iran
Marital Status: Married
Children: 2

Education

Sept. 2002- Dec. 2006 **Doctor of Philosophy (Ph.D.)**
Statistics
School of Mathematical Sciences, Nottingham University
Nottingham, UK

Thesis Title Statistical Modelling and Inference for Shape Diffusions

Supervisor Prof. I. L. Dryden

Co-Supervisor Prof. F. G. Ball

Sept. 1994- Feb. 1997 **Master of Science (M.Sc.)**
Statistics
School of Mathematics, Shahid Beheshti University
Theran, Iran

Thesis Title Statistical Tolerance Limit and its Application in Semiconductor Industry

Supervisor Dr. S. Noorbaloochi

Sept. 1990-June. 1994 **Bachelor of Science (B.Sc.)**
Statistics
School of Mathematics, Shahid Chamran University
Ahvaz, Iran

Honors and Awards

1- Travel award given by IMS for presenting paper in ISNPS3.

2- Ranked 5th Nation-Wide in Iran University Entrance Exam for Master of Statistics.

3- Ranked 3rd at the National Exam for Obtaining Scholarship to Study Abroad.
(Ministry of Sciences, Research and Technology of Iran Scholarship)

Research Interests

- Shape Analysis
- Statistical Inference
- Multilevel Modelling
- Multivariate Analysis
- Computer Intensive Programming

Research Experience

2006-2008
Research Assistant
Division of Statistics, University of Nottingham, Nottingham, UK

2002-2005
Teaching Assistant
Division of Statistics, University of Nottingham, Nottingham, UK

1995-1997
Research Assistant
Centre for Research in Semiconductor Industries, Tehran, Iran

2011- Now
Non-resident Researcher
IPM, Tehran, Iran

Work Experience

2016- Now Associate Professor
Faculty of Mathematical Sciences, Tarbiat Modares University, Tehran, Iran

2008- 2015 Assistant Professor
Faculty of Mathematical Sciences, Tarbiat Modares University, Tehran, Iran

2006-2008 Research Assistant
Division of Statistics, University of Nottingham, Nottingham, UK

2010- Now Deputy of the Iranian Statistics Society
Department of Statistics, Tarbiat Modares University, Iran

1997-2005
Temporary Lecturer
Division of Mathematics, University of Mazandaran, Iran

1997-1998 Deputy of the Iranian Statistics Society
Division of Mathematics, University of Mazandaran, Iran

1995-1997 Statistical Consultant for the Centre for Research in Semiconductor Industries
Tehran, Iran

Supervisions Experience

1998-2002
Final year B.Sc. project (five students)
Division of Statistics, University of Payame_Noor, Behshar, Iran

2008-Now
Supervision more than 20 M.Sc. students in Statistics
Faculty of Mathematical Sciences, Tarbiat Modares University, Iran

2008-Now
Advisor of three Ph.D. and five M.Sc. theses in Statistics
Faculty of Mathematical Sciences, Tarbiat Modares University, Iran

2016	**Mahnaz Nabil**	Functional Principal Geodesic in Shape Analysis
2016	**Meisam Moghim Beygi**	Regression Modelling of Shape Data
2017	**Omid Akhgari**	Analysis of Multilevel Models with Endogenous Variables

Thesis Examiner

Internal

More than twenty Ph.D. theses in Statistics (TMU and elsewhere in Iran)
One Ph.D. thesis in Biophysics

External

Five M.Sc. students in Statistics
One M.Sc. student in Biostatistics

Technical Experience

Programming language	C
Statistical Packages	S-Plus, R, MLwiN
Mathematical Packages	Maple
Typesetting	Latex, XePersian

Teaching Experience

Spring 2012, Fall 2013, Spring 2017
Multivariate Statistical (II)
Faculty of Mathematical Sciences, Tarbiat Modares University, Iran

Fall Terms (since 2011)
Multivariate Statistical (I)
Faculty of Mathematical Sciences, Tarbiat Modares University, Iran

Fall 2009, 2010
Statistical Inference (I)
Faculty of Mathematical Sciences, Tarbiat Modares University, Iran

Spring Terms (since 2009)
Statistical Inference (II)
Faculty of Mathematical Sciences, Tarbiat Modares University, Iran

Fall 2011, Fall 2012
Advanced Statistics in Biological Sciences
Faculty of Biological Sciences, Tarbiat Modares University, Iran

Fall 2010
Mathematical Algorithms for Biological Sciences
Faculty of Biological Sciences, Tarbiat Modares University, Iran

Spring Terms (from 2003 to 2005)
Teaching Assistant for Statistics (G1ASTA)
School of Mathematics, University of Nottingham, UK
Duties: Lab Instructor and Demonstrator

Fall Terms (from 2003 to 2005)
Teaching Assistant for Probability (G1APRB)
School of Mathematics, University of Nottingham, UK
Duties: Demonstrator

Spring Term 2005
Teaching Assistant for Stochastic Processes (G1BMAC)
School of Mathematics, University of Nottingham, UK
Duties: Demonstrator

October 1997-June 2002
Temporary Lecturer
Division of Mathematics, University of Mazandaran, Iran

October 1997-June 2002
Part-time Lecturer
Division of Statistics, University of Payame_Noor, Behshar, Iran

Books

Browne, W. J., **Golalizadeh, M.,** Parker, R. M. A (2009)
A Guide to Sample Size Calculations for Random Effect Models via Simulation and the MLPowSim Software Package. University of Bristol

Research Report

Ball, F.G., Dryden, I.L. and **Golalizadeh. M.** (2004).
Brownian Motion and Ornstein-Uhlenbeck Processes in Planar Shape Space.
Technical Report 04-11, Division of Statistics,University of Nottingham, UK

Golalizadeh. M. (2011).
On Study of Shape Statistics on Manifold.
Technical Report, School of Mathematics, IPM, Iran

Golalizadeh. M. (2012).
Functional Analysing of Shape Data.
Technical Report, School of Mathematics, IPM, Iran

Golalizadeh. M. (2014).
Study on Dihedral Variation Using Non-linear Statistics.
Technical Report, School of Biosciences, IPM, Iran

Golalizadeh. M. (2016).
Clustering Second Structure of Proteins Using Dihedral Angles.
Technical Report, School of Biosciences, IPM, Iran

Conference Poster

Brownian Motion and Ornstein-Uhlenbeck Processes in Planar Shape Space . 24th LASR Workshop (2005), Leeds, UK.
(Appeared in Conference Proceedings p.133)
joint work with F.G. Ball and I.L. Dryden

On Theoretical Aspect of Shape Analysis
40th Annual Iranian Mathematics Conference
Sharif University of Technology, Tehran, Iran

Multilevel Factor Analysis of the PIRLS Test for the Iranian Pupils.
29th International Workshop on Statistical Modelling (2014), Gottingen, Germany

Journal Papers

Akhgari, O. and **Golalizadeh, M**. (2018)
On Bayesian Analysis of Seemingly Unrelated Regression Model with Skew Error
Revstat: Statistical Journal
Accepted for Publication

Moghimbeygi, M. and **Golalizadeh, M**. (2018)
A Longitudinal Model for Shapes Through Triangulation
AStA Advances in Statistical Analysis
DOI https://doi.org/10.1007/s10182-018-0324-9

Akhgari, O. and **Golalizadeh, M**. (2017)
Bayesian Analysis of Regression Models Using Instrumental Variables: A Case Study (Iranian Rural Households Income And Expenditure Data)
Journal of Statistical Research of Iran, **14** (1), pp.53-75

Esfandyarifar, H., Nasiri, P. and **Golalizadeh, M**. (2016)
Bayesian and Expected Bayesian interval estimation for difference of binomial Proportions
Journal of Applied Probability and Statistics, **11**, 107-123

Moghimbeygi, M. and **Golalizadeh, M**. (2016)
Longitudinal shape analysis by using the spherical coordinates,
To appear in *Journal of Applied Statistics*

Nabil, M. and **Golalizadeh, M**. (2016) On Clustering Shape Data,
Journal of Statistical Computation and Simulation, **36**, 3995-4008

Nodehi, A., **Golalizadeh, M**. and Heydari, A. (2015),
Dihedral Angles Principal Geodesic Analysis Using Nonlinear Statistics,
Journal of Applied Statistics, **42**, 1962-1972

Najibi, S. M, Faghihi, M., **Golalizadeh, M**. and Arab, S. S. (2015),
Bayesian Alignment of Proteins via Delaunay Tetrahedralization,
Journal of Applied Statistics, **42**, 1064-1079.

Mahmoud nejad, H. and **Golalizadeh, M**. (2015),
A recursive algorithm on estimating the parameters in multilevel models subject to the measurement errors on the covariates.
Journal of Statistical Computation and Simulation, **2**, 252-261.

Fotouhi, H.R., and **Golalizadeh, M.** (2014),
Highly Resistance Gradient Descent Algorithm for Computing Intrinsic Mean on Similarity Shape Space,
Statistical Papers, 1-20.

Fotouhi, H.R., and **Golalizadeh, M.** (2012).
Exploring the Variability of DNA Moleculars via Principal Geodesic Analysis on the Shape Space.
Journal of Applied Statistics, **39** (10), 2199-2207

Abolfazli, R., Hosseini, M., Ghanizadeh, A., Ghaleiha, A., Tabrizi, M., Raznahan, M., **Golalizadeh, M**. and Akhondzadeh, S. (2011)
Double Blind Randomized Parallel Group Clinical Trial of Efficacy of the Combination Fluoxetine plus Modafinil versus fluoxetine plus Placebo in the Treatment of Major Depression.
Depression and Anxiety, **28**, 297-302

Golalizadeh, M. (2010).
A Useful Family of Stochastic Processes for Modeling Shape Diffusions.
Journal of Statistical Research of Iran, **7** (1), pp.21-36

Browne, W.J., **Golalizadeh, M.,** Green, M.J. and Steel, F. (2009)
The use of simple reparameterizations to improve the efficiency of Markov chain Monte Carlo estimation for multilevel models with applications to discrete time survival models.
Journal of the Royal Statistical Society. Series A, Vol. 172, Part 3. pp. 579-598

Ball, F.G., Dryden, I.L., and **Golalizadeh, M.** (2008).
Brownian Motion and Ornstein-Uhlenbeck Processes in Planar Shape Space.
Methodology and Computing in Applied Probability, Vol. 10, pp. 1-22

Ball, F.G., Dryden, I.L., and **Golalizadeh, M.** (2006).
Discussion to the paper by Beskos et al. (2006)
Journal of the Royal Statistical Society. Series B, Vol. 68, Part 3. pp. 367-368

Training Course Attended

June-July	2003	Modelling Extremes and Other Topics in Environmental Statistics Sheffield, UK
September	2004	Graduate Training Programme in Mathematical Statistics and Applied Probability Nottingham, UK Modules: Coupling, Bayesian Statistics

Workshop Holden

Introductory Multilevel Data Analysis
SRTC Training Workshop, October 2009, Tehran, Iran

Essential of Multilevel Data Analysis for Medicine
Tehran University of Medical Sciences, February 2010, Tehran, Iran

Shape analysis and Classification models
Ilam University of Medical Sciences, May 2011, Ilam, Iran

Multilevel Data Analysis and Its Application
SRTC Training Workshop, February 2013, Tehran, Iran

Introduction to Shape analysis
SRTC Training Workshop, February 2013, Tehran, Iran

Introduction to Multilevel Data
SRTC Training Workshop, September 2014, Tehran, Iran

Programming with R
SRTC Training Workshop, February 2015, Tehran, Iran

Familiarity, Analysis and Programming with R
Iranian Survival Organization, September 2016, Tehran, Iran

Familiarity, Analysis and Programming with R
SRTC Training Workshop, May 2016, Tehran, Iran

Workshop Attended

Stochastic Geometry, Biological Structure and Images
22nd LASR Workshop, July 2003, Leeds, UK

Workshop on Uncertainty, Complexity and Predictive Reliability of Environmental/ Biological Models
April 14-16, 2004. University of Nottingham, UK

Quantitative Biology, Shape Analysis, and Wavelets
24th LASR Workshop, July 2005, Leeds, UK

Conference Presentations

April 2004 — Stochastic Processes on the Sphere and Triangle Shape Space, The 27th Annual Conference of Research Students in Probability and Statistics, Sheffield, UK. (Appeared in Proceedings p.49)

July 2004 — Some Results of the Brownian Motion in the Shape Space, The 12nd Iranian Research Conference in Europe, Manchester, UK

April 2005 — Shape Diffusions
The 28th Annual Conference of Research Students in Probability and Statistics, Cambridge, UK. (Appeared in Proceedings p.32)

June 2005 — Shape densities, shape diffusion and some old friends
RSS General Applications and Statistical Computing Sections, London.
joint work with Frank Ball and Ian Dryden*

July 2005 — Diffusion of Planar Shapes
The 13th Iranian Research Conference in Europe, Leeds, UK

July 2006 — Sample size calculations in multilevel modelling
The ESRC Research Methods Festival, Oxford, UK.
joint work with William Browne* and L. Leese

July 2006 — Ornstein-Uhlenbeck shape processes, simulation and inference
IMS Annual Meeting, Rio de Janeiro, Brazil
joint work with Frank Ball and Ian Dryden*

August 2006 — MCMC algorithms for shape diffusions
The 8th Iranian Statistical Conference (ISC), Shiraz, Iran

April 2007 — Sample size calculations in multilevel modeling
The Sixth International Amsterdam Conference on Multilevel Analysis
joint work with W.J. Browne

April 2007 — Using SMCMC for normal response multilevel models
The Sixth International Amsterdam Conference on Multilevel Analysis
joint work with William Browne*

December 2007 — Use of centered parameterisation and MCMC estimation to fit discrete Time survival models
RSS Recent Advances in Multilevel Modelling and Methodology and Applications, London
Joint work with William Browne*, Fiona Steele and Martin Green

July 2008 — Sample size calculations for multilevel models
The ESRC Research Methods Festival, Oxford, UK.
joint work with William Browne*

September 2008 — Simple method to improve MCMC efficiency in random effects models
RSS Conference, Nottingham,UK.
joint work with William Browne*

October 2008 — Shape analysis; introduction and other considerations
Department of Statistics, Tarbiat Modares University, Iran

December 2008 — Familiarity with shape analysis
Department of Statistics, Tarbiat Modares University, Iran

May 2009 — On simulation of shape diffusions
The 2nd International Conference of Iranian Operations Research

Society, University of Mazandaran, Iran

August 2009

A useful family of stochastic processes in shape analysis
7th Seminar on Probability and Stochastic Processes
Isfahan University of Technology, Isfahan, Iran

October 2009

On Matching in Structural Bioinformatics via Statistical Shape Analysis
The 3rd Workshop on Mathematical Chemistry, Tehran, Iran

November 2009

Shape analysis: what is it and how does it work?
Department of Statistics, University of Mazandaran, Iran

August 2010

Statistical Analysis of Power in Cross Classified Models via Simulation
The 10th Iranian Statistical Conference (ISC), Tabriz, Iran

September 2011

Principal Geodesic Analysis on Shape Space
Applied Statistics 2011, Ljubljana, Slovenia.

July 2012

A Monte Carlo Study on Bayesian SSD in Multilevel Models
8th CPS, Istanbul, Turkey

September 2012

Some New Challenges in the Statistical Shape Analysis
The 11th Iranian Statistical Conference (ISC), Tabriz, Iran

July 2013

Computing Intrinsic Mean Shape on Similarity Shape Spaces using a Highly Resistant Algorithm
29th European Meeting of Statisticians, Budapest, Hungary

July 2015

Dimension Reduction of Dihedral Angles Data Using Principal Geodesic Analysis
The 7th International Conference on Probability and Statistics, Smolenice, Slovakia

June 2016

Nonparametric Regression to Model Shape Variability Using Spherical Coordinates
Third Conference of International Society of Non-Parametric Statistics (ISNPS), Avignon, France

August 2016

Statistical Shape Analysis of Landform Data in Ardestan
The 13th Iranian Statistical Conference (ISC), Kerman, Iran

July 2017

An Study on Comparing Distance-based and Probability-based Discrimination Methods for Planar Shape Data
61st ISI World Statistics Congress, Marrakech, Morocco

August 2017

Standard Brownian Motion Induced by Dihedral Angles Perturbation
The 11th Seminar on Probability and Stochastic Processes, Qazvin, Iran

August 2018

Simple Methods to Cluster Planar Shapes
The 14th Iranian Statistical Conference, Sharood, Iran

* presenter

Professional Affiliation

September 1997 - Present	Member of the Iranian Statistics Society
February 2003 - February 2005	Student Member of the RSS
January 2018 – Present	Member of ISI

Professional Services

September 2012-Present	Editorial Board of Andishe-ye Amari (Persian Journal of the Iranian Statistical Society)

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