

CURRICULUM VITAE

Baha-Eldin Khaledi

UNC Address

Department of Applied Statistics and Research Methods
University of Northern Colorado
Greeley, CO 80639
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<https://scholar.google.com/citations?user=nvZXh4wAAAAJ&hl=en>

EDUCATION

Ph.D. in Statistics, 2000

Indian Statistical Institute, New Delhi, India

M.Sc. in Statistics, 1991

Shahid Beheshti University, Tehran, Iran

B.Sc. in Statistics, 1988 (*ranked 1st*) Shahid Chamran University, Ahvaz, Iran

WORK EXPERIENCE

Visiting Professor, August 2021 - Present

Department of Applied Statistics and Research Methods
University of Northern Colorado, Greeley, CO 80639

Visiting Faculty, January 2021 – August 2021

Department of Mathematics and Statistics
Florida International University, Miami, FL 33199

Visiting Faculty, September 2017- September 2019

Fariborz Maseeh Department of Mathematics and Statistics
Portland State University, Portland, OR 97201

Faculty-Fixed Term, August 2016 - August 2017

Department of Applied Statistics and Research Methods
University of Northern Colorado, Greeley, CO 80631, USA

Visiting Research Scholar, October 2015 - August 2016 Fariborz Maseeh Department of Mathematics and Statistics Portland State University, Portland, OR 97207, USA.

Professor, June 2011 - October 2015

Department of Statistics, Razi University Kermanshah, Iran. **Associate Professor**, October 2009 - June 2011

Visiting Associate Professor, October 2008 - October 2009

Department of Mathematics and Statistics, Portland State University, Portland, OR, USA.

Associate Professor, September 2005 - October 2008

Department of Statistics, Razi University Kermanshah, Iran.

Assistant Professor, June 2001- September 2005

Department of Statistics, Razi University Kermanshah, Iran.

Visiting Assistant Professor, August 2000 - June 2001

Department of Mathematics, University of Arizona, Tucson, AZ, USA.

Lecturer, Jan 1992 - Jan 1997.

Department of Statistics, Razi University, Kermanshah, Iran.

TEACHING

UNDERGRADUATE COURSES:

- **Courses taught in the Department of Mathematics and Statistics of Florida International University**

Statistical Methods, Introduction to Probability & Statistics for Computer sciences S and Engineering (online and in-person)

- **Courses taught in the Department of Mathematics and Statistics of Portland State University**

Bayesian Statistics, Applied Probability I and II, Applied Regression Analysis, Mathematical Statistics, Probability and

Statistics for Engineering, Introduction to Probability and Statistics I and II, Statistics for Business and Economics, Calculus II.

- **Courses taught in the Department of Mathematics of University of Arizona Aug 2000 - June 2001**

Finite mathematics 4 sections at

- **Courses taught in Department of Statistics of Razi University, Kermanshah, Iran:**

Introduction to Statistics, Statistical Methods, Engineering Statistics, Statistics for Economics, Statistics for Business,

Econometrics, Regression Analysis, Experimental Design, Categorical data analysis, Mathematical Statistics I and II,

Probability, Introduction to Reliability, Nonparametric Methods, Special Topics in Statistics, Calculus I, II, III, Numerical

Analysis,

Typically, the class size is between 30 and 60 in these courses.

GRADUATE COURSES:

- **University of Northern Colorado**

Statistical Inference, Mathematical Statistics I and II, Non-Parametric Methods, Introduction Applied Data Science, Statistical Methods I and II (online and in-person) for non-statistics major, Introduction to Statistical Computation with SAS, Advanced Statistical Programming with R.

- **Florida International University**

Linear Model

- **Portland State University**

Bayesian Statistics, Applied Regression Analysis, Applied Probability

- **Courses taught in the Department of Statistics of Razi University, Kermanshah, Iran:**

Statistical Inference, Probability Theory, Special Topics in Statistics, Reliability Analysis, Reliability Theory, Survival Analysis, Risk Theory, Actuarial Models and Mathematics in Insurance, Inference Based on Ordered Statistical Data (Order Statistics and Record Values) and Non-Parametric Inference.

Thesis supervisor of Master as well as Ph.D. students in statistics which mostly ended with publications:

PhD supervisor of

1. Dr. Maryam Sharafi, now assistant professor at Department of Statistics of Razi University, Kermanshah, Iran
2. Dr. Muhyiddin Izadi, now assistant professor at Department of Statistics of Razi University, Kermanshah, Iran
3. Dr. Ebrahim Amini-Seresht, now assistant professor at Department of Statistics of Bu-Ali Sina University, Hammadan, Iran
4. Dr. Sirous Fathhi Manesh, now assistant professor at Department of Statistics of Kurdistan University, Kurdistan, Iran
5. Dr. Rabeeollah Rahmani, now assistant professor at Ghazvin University, Ghazvin, Iran
6. Dr. Masood Amiri,.
7. Dr. Amin Roshani
8. Dr. Shakoori

MSc thesis supervisor of more than 40 students in master program of statistics.

AWARD

- Ph.D. program scholarship received from Ministry of Science and Higher Education of Iran, 1997-2000.
- Indian Council of Cultural Relation Scholarship for PhD program 1997-2000
- Award received from Statistical Center of Iran by president of Iran for the best published paper among statisticians of Iran, November 2003.

GRANTS

Most of the publications were supported through some grant by Ordered and Spatial Data Center of Excellence of Ferdowsi University of Mashhad, Statistical Research Center of Iran, Razi University, Shahied Beheshti University of Tehran and Azad University of Kermanshah. I present some of these grants below.

Grant from Statistical Training and Research Center of Iran, 2001, 2002 and 2003, 20000000 Rials for each year.

Grant from Research Department of Shahied Beheshti University, Tehran Iran, 20000000 Rials, Oct 2005.

Grant from Research Department of Azad University - Kermanshah Branch Kermanshah- Iran 121500000 Rials, Dec 2010.

Grant from Research Department of Azad University - Kermanshah Branch Kermanshah- Iran 150000000 Rials, Dec 2011.

Grant from Research Department of Azad University - Kermanshah Branch Kermanshah- Iran 150000000 Rials, Dec 2012.

Grant from Research Department of Razi University - Kermanshah, Iran 46000000 Rials, Dec 2013.

These grants supported some of the following published articles and attending the meetings and conferences.

More than 8 research projects conducted in Razi University during last 7 years, total received grant 50000000 Rials.

Research Project conducted in Shahied Beheshti University, Tehran, Iran, 2004-2005, total received grant 25000000 Rials.

Research Project conducted with Water Organization of Kermanshah, Iran 2010-2011, total received grant 490,000,000 Rials.

Publications

1. Shakoori, A., Izadi, M., and **Khaledi, B.E.** (2024). Copula based Bayesian data analysis of loss reserving. *Communications in Statistics-Simulation and Computation*, 53(2), 727-743.
2. Shakoori, A., Izadi, M., and **Khaledi, B.E.** (2023). Modeling outstanding claims in dependent run-off triangles considering calendar dependence. *Iranian Journal of Insurance Research*, 12(4), 283-298. (In Persian)
3. Roshani, A., Izadi, M., and **Khaledi, B.E.** (2023). Bayesian Poisson common factor model with overdispersion for mortality forecasting in multiple populations. *Communications in Statistics-Simulation and Computation*, 1-28.
4. Roshani, A., Izadi, M., and **Khaledi, B.E.** (2023). Transformer self-attention network for forecasting mortality rates. *Journal of The Iranian Statistical Society*, 21, 91-113.
5. Manesh, S.F., Izadi, M., and **Khaledi, B.E.** (2023). On stochastic ordering among extreme hock models. *Probability in the Engineering and Informational Sciences*, 37(4) 961-972.
6. Amiri, M., Dhaene, J., Izadi, M., and **Khaledi, B.E.** (2022). Lower and upper bounds for survival functions of the smallest and largest claim amounts in layer coverages. *Communications in Statistics-Theory and Methods*, 51(18), 6385-6395.
7. Fathi Manesh, S., Izadi, M. **Khaledi, B. E.** (2021). Some New Results on Policy Limit Allocations. *JIRSS*, **20**, 83-196.
8. Amiri, M., Dhaene, J. Izadi, M. and **Khaledi, B. E.** (2020) Lower and upper bounds for survival functions of the smallest and largest claim amounts in layer coverages. *Communications in Statistics - Theory and Methods*, <https://>
9. Amini-Seresht, E. **Khaledi, B. E.** and Kochar, S. (2020) Some new results on stochastic comparisons of coherent systems using signatures. *Journal of applied probability*, **57**, 156-173
10. Amiri, M. Izadi, M. and Khaledi, B. E. (2019). Optimal allocation of policy layers for exponential risks. *JIRSS*, **18**, 1-16.
11. Izadi, M., Sharafi, M. and **Khaledi, B. E.** (2018). New non-parametric classes of distributions in terms of mean time to failure in age replacement. *Journal of Applied Probability* **55**, 1238-1248
12. Fathi Manesh, S. **Khaledi, B. E.** and Dhaene, J. (2016). Optimal allocation of policy deductibles for exchangeable risks. *Insurance: Mathematics and Economics*. **71**, 87-92.
13. Rahmani, R., Izadi, M., **Khaledi, B. E.** (2016). Stochastic comparisons of total capacity of weighted-k-out-of-n systems. *Statistics and Probability Letters* **117**, 216-220.
14. Rahmani, R., Izadi, M. and **Khaledi, B. E.** (2016). Importance of components in k-out-of-n system with components having random weights. *Journal of Computational and Applied Mathematics* **296**, 1-9
15. Izadi, M., **Khaledi, B. E.** and Lee, C. D. (2016). On Testing more IFRA ordering II. *Communication in Statistics: Theory and Methods* **45**, 4556-4568.
16. Amini-Seresht, E., **Khaledi, B. E.** and Shaked, M. (2016). Order statistics with multivariate concomitants: stochastic comparisons. *Statistics* **50**, 190-205.
17. Amiri, M. and **Khaledi, B. E.** (2016). A new test for symmetry against right skewness. *Journal of Statistical Computations and Simulations* **86**, 1479-1496.
18. Fathi Manesh, S. and **Khaledi, B. E.** (2015). On usual stochastic ordering among capital allocations of policy limits. *Insurance: Mathematics and Economics* **65**, 9-14.
19. Amini-Seresht, E. and **Khaledi, B. E.** (2015). Multivariate stochastic comparisons of mixture models. *Metrika* **78**, 1015-1034.
20. **Khaledi, B. E.** (2014). Karlin's basic composition theorems and stochastic orderings. *Journal of the Iranian Statistical Society* **13**, 177-186.
21. Sharafi, M., **Khaledi, B. E.** and Hami, N. (2014). On multivariate likelihood ratio ordering among generalized order statistics and their spacings. *Journal of the Iranian Statistical Society* **13**, 1-29.
22. Dewan, I. and **Khaledi, B. E.** (2014). On stochastic comparisons of residual life time at random time. *Statistics and Probability Letters* **88**, 73-79.
23. Bairamov, I., **Khaledi, B. E.** and Shaked, M. (2014). Stochastic comparisons of order statistics and their concomitants. *Journal of Multivariate Analysis* **124**, 105-115.
24. Amiripour, F., **Khaledi, B. E.** and Shaked, M. (2013). Stochastic orderings of convolution residuals. *Metrika* **76**, 559-576.

25. **Khaledi, B. E.** (2013). Comments on ordering properties of order statistics from heterogeneous populations: a review with an emphasis on some recent developments BY N. Balakrishnan and P. Zhao. *Probability in the Engineering and Informational Sciences* **27**, 463-464.
26. Izadi, M., Lai Chin-Diew and **Khaledi, B. E.** (2013). Testing exponentiality versus NWBUE alternative. *Journal of the Indian Statistical Association* **51**, 105-112.
27. Sharafi, M., Balakrishnan, N. and **Khaledi, B. E.** (2013). Distribution free comparison of hazard rates of two distributions under type-II censoring. *Communications in Statistics - Theory and Methods* **42**, 1889-1898.
28. Sharafi, M., Balakrishnan, N. and **Khaledi, B. E.** (2013). Distribution free comparison of hazard rates of two distributions under progressive Type II censoring. *Journal of Statistical Computation and Simulation* **83**, 15271542.
29. **Khaledi, B. E.** and Kochar (2013). A review on convolutions of gamma random variables. In: *Stochastic Orders in Reliability and Risk*, 199-217. Editors: Li, H. and Li, X., Springer New York Heidelberg Dordrecht London. (21) Izadi, M. and **Khaledi, B. E.** (2012). On testing more IFRA ordering. *Journal of Statistical Planning and Inference* **142**, 840-847.
30. **Khaledi, B. E.** and Amiri, L. (2011). On the mean residual life order of convolutions of independent uniform random variables. *Journal of Statistical Planning and Inference* **141**, 3716-3724.
31. Amiri, L., **Khaledi, B. E.** and Samaniego, J. F. (2011). On skewness and dispersion among convolutions of independent gamma random variables. *Probability in the Engineering and Informational Sciences* **25**, 55-69.
32. **Khaledi, B. E.**, Farsinejad, S and Kochar, S. (2011). Stochastic comparisons of order statistics in the scale model. *Journal of Statistical Planning and Inference* **141**, 276-286.
33. **Khaledi, B. E.** and Shaked, M. (2010) Stochastic comparisons of multivariate mixtures. *Journal of Multivariate Analysis* **101**, 2486-2498.
34. Balakrishnan, N., Belzunce, F., Hami, N. and **Khaledi, B. E.** (2010). Univariate and multivariate likelihood ratio ordering of generalized order statistics and associated conditional variables. *Probability in the Engineering and Informational Sciences* **24**, 441-455.
35. **Khaledi, B. E.**, Amiripour, F., Hu, T. and Shojaei, R. (2009). Some new results on stochastic comparisons of record values. *Communication in Statistics- Theory and Methods* **38**, 2056-2-66.
36. Fathi Manesh, S. and **Khaledi, B. E.** (2008). On the likelihood ratio order for convolutions of independent generalized Rayleigh random variables. *Statistics and Probability Letters* **78**, 3139-3144.
37. **Khaledi, B. E.** and Ahmadi, S. (2008). On stochastic comparisons between aggregate claim amounts. *Journal of Statistical Planning and Inference* **138**, 2243-2251.
38. Farsinejad, S. and **Khaledi, B. E.** (2007) Ordering order statistics using variance majorization. *Journal of Statistical Research of Iran* **4**, 149-159.
39. Izadi, M. and **Khaledi, B. E.** (2007). Progressive type II censored order statistics and their concomitants: some stochastic comparisons results. *Journal of the Iranian Statistical Society* **6**, 111-124.
40. Hu, T., Jin, W. and **Khaledi, B. E.** (2007). Ordering conditional distribution of generalized order statistics. *Probability in the Engineering and Information Sciences* **21**, 401-417.
41. **Khaledi, B. E.** and Shojaei, R. (2007). On stochastic orderings between residual record values. *Statistics and Probability Letters* **77**, 1467-1472.
42. **Khaledi, B. E.** and Shaked, M. (2007). Ordering conditional lifetimes of coherent systems. *Journal of Statistical Planning Inference* **137**, 1173-1184.
43. **Khaledi, B. E.** and Kochar, S. C. (2007). Stochastic orderings of order statistics of independent random variables with different scale parameters, *Communication in Statistics-Theory and Methods* **36**, 1441-1449.
44. **Khaledi, B. E.** and Kochar, S. C. (2006). Weibull distribution: some stochastic comparisons results. *Journal of Statistical Planning Inference* **136**, 3121-3129.
45. **Khaledi, B. E.** and Kochar, S. C. (2005). Dependence orderings for generalized order statistics. *Statistics and Probability Letters* **73**, 357-367.
46. **Khaledi, B. E.** and Kochar, S. C. (2005). Dependence, dispersiveness and multivariate hazard rate. *Probability in the Engineering and Information Sciences* **19**, 427-446.
47. **Khaledi, B. E.** (2005). On stochastic orderings between generalized order statistics. *Journal of the Iranian Statistical Society*, **4**, 35-49.
48. **Khaledi, B. E.** and Kochar, S. C. (2004). Ordering convolutions of random variables. *Sankhya* **66**, 466-473.
49. Hu, T., He, F., and **Khaledi, B. E.** (2004). Characterizations of some aging notions by means of the dispersion-type or dilation-type variability orders. *Chinese Journal of Applied Probability and Statistics* **20**, 66 -76.
50. **Khaledi, B. E.** and Shaked, M. (2003), Bounds on Kolmogorov distance of a mixture from its parent distribution. *Sankhya* **65**, 317-332.

51. Hu, T., **Khaledi, B. E.**, and Shaked, M. (2003). Multivariate Hazard Rate Orders. *Journal of Multivariate Analysis* **84**, 620-630.
52. Belzunce, F., Hu, T., and **Khaledi, B. E.** (2003). Dispersion-type variability orders. *Probability in the Engineering and Information Sciences* **17**, 305-334.
53. **Khaledi, B. E.** and Kochar, S. C. (2002). Stochastic orderings among order statistics and sample spacings. In *Uncertainty and Optimality - probability, statistics and operations research*, 167-203. Editor: J.C. Misra. World Scientific Publications, Singapore.
54. **Khaledi, B. E.** and Kochar, S. C. (2002). Dispersive ordering among convolutions of independent uniform random variables. *Journal of Statistical Planning and Inference* **100**, 13-21.
55. **Khaledi, B. E.** and Kochar, S. C. (2001). On dependence structure of multivariate mixture distributions. *Annals of Institution Statistics and Mathematics* **53**, 620-630.
56. **Khaledi, B. E.** and Kochar, S. C. (2001), Stochastic properties of spacings in a single outlier exponential Model. *Probability in the Engineering and Information Sciences* **15**, 401-408.
57. **Khaledi, B. E.** and Kochar, S. C. (2000). Sample range - some stochastic comparisons results", *Calcutta Statistical Association Bulletin* **50**, 283-291.
58. **Khaledi, B. E.** and Kochar, S. C. (2000). Some new results on stochastic comparisons of parallel systems. *Journal of Applied Probability* **37**, 1123-1128.
59. **Khaledi, B. E.** and Kochar, S. C. (2000). Dependence among spacings. *Probability in Engineering and Information Sciences* **14**, 461-472.
60. **Khaledi, B. E.** and Kochar, S. C. (2000). Stochastic comparisons and dependence among concomitants of order statistics. *Journal of Multivariate Analysis* **73**, 262-281.
61. **Khaledi, B. E.** and Kochar, S. C. (2000). On dispersive ordering between order statistics in one-sample and two-sample problems. *Statistics and Probability Letters* **46**, 257-261.
62. **Khaledi, B. E.** and Kochar, S. C. (1999). Stochastic orderings between distributions and their sample spacings -II". *Statistics and Probability Letters* **44**, 161-166.

PRESENTATIONS

- (1) Stochastic ordering between distributions and their sample spacings. Workshop on Reliability Theory and Survival analysis held at Indian Institute of Technology, Bombay, India, Nov 1998.
- (2) On dispersive ordering between order statistics in one-sample and two-sample problems. International Conference held in Delhi University, Delhi, India, Dec 1999.
- (3) Some recent results on stochastic comparisons of parallel systems. Department of Mathematics, University of Arizona, Tucson, Arizona, USA, Feb 2001.
- (4) Some recent results on Stochastic Orders. Department of Statistics, Faculty of Mathematical Sciences, Shahied Bheshti University, Tehran, Iran, Jan 2002.
- (5) Multivariate hazard rate orders. Sixth Iranian International Statistics Conference, Aug 2002.
- (6) Stochastic Comparisons of Parallel Systems with Proportional Hazards. 54th ISI Session, Berlin Aug 2003.
- (7) Ordering sum of independent random variables., Invited talk, 7th Iranian Statistical Conference, Tehran Aug 2004.
- (8) Ordering order statistics from independent random variables with scale distributions. *Ordered Statistical Data*, Izmir, Turkey, June 2005.
- (9) Eighth North American New Researchers Conference in Statistics and Probability. Minneapolis, MN, USA, Sep 2005.
- (10) Ordering Conditional Record Values. *Ordered Statistical Data*, Jordan, June 2007.
- (11) Stochastic ordering between order statistics using the notion of majorization. *Ordered Statistical Data*, Aachen, RWTHA Aachen University, Aachen, Germany, 2008.
- (12) Generalized Order Statistics: Dependence and Stochastic Orderings. 8th Iranian Statistical Conference, Shiraz, Iran, 2006.
- (13) Stochastic Ordering among Distributions of Generalized Order Statistics. 9th Iranian Statistical Conference, Isfahan, Iran, 2008.
- (14) Stochastic Ordering, Scale Models and Order Statistics. 10th Iranian Statistical Conference, Tabriz, Iran, 2010.
- (15) On stochastic comparisons among generalized order statistics (Persian). 10th Iranian Statistical Conference, Tabriz, Iran, 2010.
- (16) Mean residual lifetime ordering for convolutions of independent gamma random variables. 8th Seminar on Probability and Stochastic Processes, 2011.

- (17) Mean Residual Ordering among Convolutions of Independent Random Variables. MMR2011, Beijing, China, 2011.
- (18) Stochastic Comparisons of Multivariate Mixtures. International Workshop on Stochastic Orders in Reliability and Risk Management, Xiamen, China, 2011.
- (19) On Testing Inequality Ordering. International Conference on Econometrics, Kurdistan, Iran, 2012.
- (20) Ordering Conditional Residuals 10th International Conference On Ordered Statistical Data and Their Applications, Murcia, Spain, 2012.
- (21) Stochastic Comparisons of Conditional Variables. 3rd Workshop on Reliability and Its Applications, Organized by Ordered and Spatial Data Center of Excellence, Mashhad, Iran, 2014.
- (22) Multivariate Stochastic Orders: Concomitants of Order Statistics. 12th Iranian Statistical Conference, Kermanshah, Iran, 2014.
- (23) On Entropy Order for Order Statistics and Concomitants of Order Statistics. 2nd Workshop on Information Measures and Its Applications, Organized by Ordered and Spatial Data Center of Excellence, Mashhad, Iran, 2014.
- (24) Stochastic Comparisons of Replacement Policies. 1st Seminar on Reliability Theory and Its Applications, Organized by Ordered and Spatial Data Center of Excellence, Isfahan, 2015.

SERVICE

- I have reviewed papers for:
 - Journal of Multivariate Analysis.
 - Probability in the Engineering and Informational Sciences.
 - Journal of Statistical Planning and Inference.
 - Statistics and Probability Letters.
 - Journal of Iranian Statistical Society.
 - Communication in Statistics- Theory and Method.
- Members of Editorial Boards and Scientific Committees
 - Member of "Ordered and Spatial Data Center of Excellence (OSDCE)" Mashhad, Iran since 2012.
 - Member of Editorial Board of the Journal of Iranian Statistical Society 2011-2015
 - Member of Editorial Board of Communication in Statistics Theory and Methods 2006 -2020t.
 - Member of Editorial Board of Communication in Statistics Simulation and Computation 2006 - 2020.
 - Member of Editorial Board of Journal of Advanced Mathematical Modelling
 - Member of Scientific Committee of the 11th Iranian Statistical Conference
 - Guest Editors of Two Volumes of Special Issues of the Journal of Iranian Statistical Society on Ordered Statistical Data.
 - Member of Scientific Committee of the 9th International Statistics Day Symposium May 10-14, 2014 -Antalya, Turkey.
 - Chair of the Scientific Committee of the 12th Iranian Statistical Conference, Kermanshah, Iran, August - 2014.
 - Member of Executive Committee of the 12th Iranian Statistical Conference, Kermanshah, Iran, August -2014
Letter is attached
 - Chair of Scientific Committee of the Ordered Statistical Data Conference, Mashhad, Iran, June - 2006. Letter is attached
 - Member of Executive Committee of the Ordered Statistical Data Conference, Mashhad, Iran, June - 2006. Letter is attached
 - Member of Scientific Committee of Ordered Statistical Data and Its Applications, Murcia, Spain, 2008. Letter is attached

CONSULTING

Statistical Consulting and Statistical Data Analysis for researchers, faculties and graduate students of various departments of many organizations and universities.

Summary of Qualifications and Skills

- R and SAS, SPSS, Minitab and similar Statistical Programming Languages.
- Familiar with, Python, SQL.
- Statistical Consultant in Medical Sciences, Social Sciences, Economic and Engineering sciences
- Academic Research & Teaching
- Team-Oriented