



Dr. Md Rezaul Karim

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OVERVIEW

Associate Professor of Statistics, Doctor of Science (KU Leuven), Doctor in Sciences: Statistics (UHasselt), MS (Biostatistics), MS (Statistics), BSc (Hons. in Statistics), R-Package Creator (QBAsyDist)

APPOINTMENTS

Associate Professor of Statistics 2019- cont.
Jahangirnagar University, Bangladesh

- Teaching courses on STAT-509: Advance Biostatistics, STAT-514: Computer Intensive Statistics, PM-ASDS18: Data Mining, MATH-205: Statistics

Assistant Professor of Statistics 2013-2019
Jahangirnagar University, Bangladesh

- Teaching courses on STAT-405: Data Mining, STAT-307: Time Series Analysis, STAT-204: Demography, Bot. 209: Biostatistics. and Bot. 213: Biostatistics (Practical)
- Affiliate Assistant Professor in the Faculty of EEE at Bangladesh University of Business & Technology, Bangladesh
- Affiliate Assistant Professor in the Faculty of Business Studies at Southeast University, Bangladesh

Lecturer of Statistics 2009-2013
Jahangirnagar University

- Teaching courses on STAT-405: Data Mining, STAT-204: Demography, and STAT-107: Microeconomics and Economic Statistics
- Affiliate Lecturer in the Faculty of Business Studies at Prime University, Bangladesh
- Affiliate Lecturer in the Faculty of Business Studies at ASA University, Bangladesh

PhD Fellow & Teaching Staff 2015-2019
KU Leuven & Hasselt University

- Teaching courses on B-KUL-G0P76a: Statistical Inference and Data Analysis (exercise sessions), B-KUL-G0P75a: Statistical Inference (exercise sessions) , and B-KUL-G0A23A: Advanced Non-Parametric Statistics (exercise sessions)
- Consultancy Project: Lokaal - LCRP3 (2016) - Postoperative radiotherapy in resected ypN2 or R1/R2 stage III-N2 non-small cell lung cancer (Client name: Charlotte Billiet)

EDUCATION

PhD in Statistics

2015-2019

Arenberg Doctoral School, KU Leuven

“[Study of a family of asymmetric densities and flexible quantile regression](#)”

Thesis advisor: Prof. dr. Irène Gijbels (KU Leuven) and Prof. dr. Anneleen Verhasselt (Hasselt University)

Masters degree in Biostatistics (2-years program)

2013-2015

Hasselt University

Total credits: 124 (extra 4 credits completed). Thesis Promoter: Prof. dr. Niel Hens (Hasselt University & University of Antwerp). Thesis title: “[Longitudinal modeling of T-cell dynamics during in vitro stimulation experiments](#)”. Enrolled: Academic session 2013-2014.

Masters degree in Statistics

2005-2006

Jahangirnagar University

Total Marks: 700. Thesis Promoter: Prof. dr. Ajit Kumar Majumdar, Thesis title: *Bootstrapping generalized method of moments*. Enrolled: Academic session 2005-2006.

Bachelor degree (4-years program) in Statistics

2001-2005

Jahangirnagar University

Total Marks: 3400. Enrolled: Academic session 2001-2002.

COMPUTER SKILL

SAS, Python, R, MATLAB, WinBUGS, SPSS, MAPLE, SQL, Mathematica, MiniTab, Latex, Microsoft Office.

R PACKAGE CREATOR

- [Karim, Md Rezaul](#), Gijbels, Irène, and Verhasselt, Anneleen. (2019). *QBAsyDist: Asymmetric Distributions and Quantile Estimation*. R package version 0.1.1. <https://CRAN.R-project.org/package=QBAsyDist>

RESEARCH INTEREST

Advance Biostatistics, Quantile Regression, Robust Statistics, Semiparametric Estimation, Correlated and Multivariate Data Analysis, Copula-based Modeling, Multivariate Survival Data Analysis, Bayesian Inference, Bayesian Disease Mapping, Skewed Data Analysis.

PEER-REVIEWED JOURNAL PAPERS [\[statistics\]\[juniv.edu\]](#)

13. Gijbels, Irène and [Karim, Md Rezaul](#) and Verhasselt, Anneleen, “[On Quantile-based Asymmetric Family of Distributions: Properties and Inference](#)”, *International Statistical Review*. **3(87)**, (471-504,2019).
12. [Karim, Md Rezaul](#), Gijbels, Irène and Verhasselt, Anneleen, “[QBAsyDist: Asymmetric Distributions and Quantile Estimation](#).”, *R package version 0.1.1*. **1-60**, <https://CRAN.R-project.org/package=QBAsyDist> (2019).

11. Gijbels, Irène and Karim, Md Rezaul and Verhasselt, Anneleen, “[Quantile estimation in a generalized asymmetric distributional setting](#), *In : Steland A., Rafajłowicz E., Okhrin O. (eds)*”, *Stochastic Models, Statistics and Their Applications. SMSA 2019. Springer Proceedings in Mathematics & Statistics*. **Vol 294**, pp. 13-40 (2019).
10. Billiet, Charlotte and Peeters, Stéphanie and Decaluwé, Herbert and Vansteenkiste, Johan and Dooms, Christophe and Deroose, Christophe M and Hendrikx, Marc and De Leyn, Paul and Bulens, Paul and Karim, Md Rezaul and others, “[Outcome after PORT in ypN2 or R1/R2 versus no PORT in ypN0 Stage III-N2 NSCLC after Induction Chemotherapy and Resection](#)”, *Journal of Thoracic Oncology*. **11(11)**, 1940-1953 (2016).
9. Adjei, Isaac Akpor and Karim, Md Rezaul, “[An Application of Bootstrapping in Logistic Regression Model](#)”, *Open Access Library Journal*. **3(1)**, 1–9 (2016).
8. Adjei, Isaac Akpor and Karim, Md Rezaul and Muleia, Rachid and Jouck, Peter, “[Dependency of the Distribution of Salmonella-Specific Antibodies SP-Ratios on Weight and Sampling Time](#)”, *American Journal of Theoretical and Applied Statistics* **5(3)**, 87–93 (2016).
7. Adjei, Isaac Akpor and Karim, Md Rezaul and Muleia, Rachid and Jouck, Peter, “[Evolution of Hearing Thresholds and the Effect of Age](#)”, *British Journal of Applied Science & Technology* **16(1)**, 1–9 (2016).
6. Hossain, Fitrat and Karim, Md Rezaul, “[Determination of total fertility rate of Bangladesh using Bongaarts model](#)”, *Biometrics & Biostatistics* **4(5)**, 01–04 (2013).
5. Karim, Md Rezaul , “[Seasonal ARIMA for forecasting sea surface temperature of the north zone of the Bay of Bengal](#)”, *Research & Reviews: Journal of Statistics* **2(2)**, 01–09 (2013).
4. Karim, Md Rezaul and Sajib, Anamul H. , “[Weibull Mixture of Some Sampling Distributions](#)”, *Research & Reviews: Journal of Statistics* **2(1)**, 01–06 (2012).
3. Karim, Md Rezaul and Alam, Morshed and Farazi, Md Manzur Rahman and Labone, Rubiyat Jafrine, “[Factors influencing blood donation behavior of university level students in Bangladesh](#)”, *Journal of Information Technology* **1**, 35–40 (2012).
2. Karim, Md Rezaul and Alam, Morshed and Chowdhury, MMH and Hossain, Md Forhad, “[Generalized Minimum Perpendicular Distance Square Method of Estimation](#)”, *Applied Mathematics* **3(12)**, 1945-1949 (2011).
1. Karim, Md Rezaul and Pear, Hossain and Begum, Sultana and Hossain, Md Forhad, “[Rayleigh mixture distribution](#)”, *Journal of Applied Mathematics* **Article ID 238290**, 01–17 (1Article ID 238290).

BOOK CHAPTER

- Gijbels, I., Karim, Md Rezaul and Verhasselt, A. (2019), “[Quantile estimation in a generalized asymmetric distributional setting](#)”, *In : Steland A., Rafajłowicz E., Okhrin O. (eds)*, *Stochastic Models, Statistics and Their Applications. SMSA 2019. Springer Proceedings in Mathematics & Statistics*. Vol 294, pp.13-40, Springer, Cham

INVITED TALKS AT INTERNATIONAL CONFERENCES

8. Contributed talk on “Semiparametric quantile regression using quantile-based asymmetric family of densities” in the European Meeting of Statisticians (EMS) at Palermo, Italy, 22/07/2019,
7. Doctoral seminar at the KU Leuven entitled “Local Polynomial Maximum Likelihood Estimation in Conditional Quantile Estimation” in the KU Leuven, Belgium, 18/09/2018,
6. General talk on “Quantile estimation/regression for beginners” in Workshop at Hasselt University, Belgium , 20/04/2018,
5. Contributed talk on ‘A study on a general family of asymmetric distributions’ in the International Indian Statistical Association (IISA)-2017 at Hyderabad, India, 29/12/2017,
4. Contributed talk on ‘A study on a general family of asymmetric distributions’ in the joint conference CFE-CMStatistics 2017 at London, UK, 18/12/2017,
3. Poster presentation in Leuven Statistics (LStat) Days, Belgium , 20-21/10/2016,
2. Contributed talk on ‘A study on a general family of asymmetric distributions’ at Seminar in Belgian Statistical Society (BSS), Belgium, 14/10/2016,
1. Doctoral seminar at the KU Leuven entitled “Towards encompassing flexible mean and quantile regression” in KU Leuven, Belgium, 13/05/2016,

PROJECT SUPERVISED

1. Samia Alam– Msc project (2013): Knowledge about Tuberculosis Transmission among University Student in Bangladesh
2. Fitrat Hossain– BSc project (2013): Determination of Total Fertility Rate of Bangladesh using Bongaarts Model
3. Firoz Ahmed– MSc project (2012): On Scale Mixture of Bivariate Normal Distribution
4. Rubiyat Jafrine Labone– MSc Report (2012): Factors influencing blood donation behavior of university level students in Bangladesh.
5. Rubiyat Jafrine Labone– BSc project (2011): Applications of Queuing Theory in Tele-health System of Bangladesh
6. Mousumi–MSc Report (2010): MA Class of Scale mixtures of Normal Distribution

REFERENCE

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Sincerely yours,

Dr. Md Rezaul Karim