

Marwan Al-Momani

Ph.D Statistics, 2013

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Personal Information

Marital Status: Married with three kids

Nationality: Canadian

Contact Information

Current Address: University of Sharjah.
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Education

- Ph.D. in Statistics: University of Windsor, Ontario, Canada. 2008 – 2013
Thesis title: *Shrinkage and Penalty Estimation Strategies in Some Spatial Models.*
Supervisors: S. Ejaz Ahmed & Dr. Abdulkadir Hussein.
- M.Sc. in Statistics: Yarmouk University, Irbid -Jordan. 1998 – 2000
Thesis title: *Exact Bahadur Slope and Local Power for Combining Independent Tests Using Simple Random Sample and Ranked Set Sample. (1st Honor).*
Supervisor: Walid Abu-Dayyeh.
- B.Sc. in Statistics: Yarmouk University, Irbid, Jordan. 1992–1996
With Minor in Mathematics. (Honor).

Professional Employment

- **September 2020– present:** *Assistant Professor*, University of Sharjah, UAE
- **January 2015– August 2020:** *Assistant Professor*, King Fahd University of Petroleum & Minerals, Saudi Arabia
- **July 2014– December 2014:** *Postdoctoral Fellow*, University of Western Ontario, London, Ontario
Duties: Analyzing health data under supervision of Dr. Anne Snowden.

- **May 2014– August 2014:** *Research Associate*, University of Windsor, Ontario
Duties: Analyzing data with my co-supervisor Dr. A. Hussein and Dr. Severien Nkurunziza, running simulation experiments, constructing graphs, tables, writing results and recommendation for peer reviewed journal articles .
- **January 2014– May 2014:** *Research Associate*, University of Windsor, Ontario
Duties: Analyzing data with my co-supervisor Dr. A. Hussein, running simulation experiments, constructing graphs, tables, writing results and recommendation for peer reviewed journal articles .
- **September 2013– December 2013:** *Teaching Assistant*, University of Windsor, Ontario
Duties: Running three calculus labs.
- **January 2011– April 2011:** *Sessional Instructor*, University of Windsor, Ontario
Duties: Teaching STAT-205: Statistics for the Sciences.
- **May 2009– December 2009:** *Sessional Instructor*, University of Windsor, Ontario
 1. *Teaching STAT-205: Statistics for the Sciences- Fall2009.*
 2. *Teaching MATH-141: Integral Calculus-Summer 2009.*
- **September 2002– August 2008:** *Full time lecturer* , King Fahd University of Petroleum & Minerals (KFUPM), Dhahran-Saudi Arabia

Honors

- Full Tuition Scholarship, University of Windsor, Ontario:
Summer 2010, Fall 2010, Winter 2011, Summer 2011, Fall 2011, Winter 2012, Summer 2012 and Fall2012.
- International Graduate Student Scholarship, University of Windsor, Ontario:
\$2000 × Winter 2009, Summer 2009, Fall 2010.
- International Graduate Student Scholarship, University of Windsor, Ontario:
(Doctoral) \$2000 × Winter 2009, Summer 2009, Fall 2010.
- International Graduate Student Scholarship, University of Windsor, Ontario:
(Master-M-II) \$2000 Fall 2008.
- Windsor International Graduate Excellence Award, University of Windsor, Ontario:
(Doctoral) \$1460 × Winter 2009, Summer 2009, Fall 2010.
- Windsor International Graduate Excellence Award, University of Windsor, Ontario:
(Doctoral) \$1460 × Winter 2009, Summer 2009, Fall 2010.
- Windsor International Graduate Excellence Award, University of Windsor, Ontario:
(Master-M-II) \$1460 Fall 2008.
- President's Excellence Scholarship, University of Windsor, Ontario:
(Doctoral) \$1000 × Winter 2009, Summer 2009.
- Windsor International Graduate Excellence Award, University of Windsor, Ontario:
(Master-M-II) \$1460 Fall 2008.
- Yarmouk University, Jordan :
Teaching Assistantship to study M.Sc. in Statistics, Winter1998, Fall-Winter 1999.

Research Experience

- **April 2019– Present:** PI- Project manager, King Fahd University of Petroleum & Minerals, Dhahran-Saudi Arabia
Project title: Pretest and shrinkage estimation of the regression parameter vector of the marginal model with multinomial responses.
- **May 2012– August 2012 :** Research Assistant, University of Windsor, Ontario
Duties: Working on my PhD thesis.
- **May 2011– August 2011:** Research Assistant, University of Windsor, Ontario
Duties: Working on my PhD thesis.
- **January 2010– April 2011:** Research Assistant, University of Windsor, Ontario
Duties: Working on my PhD thesis.
- **September 2006– March 2008:** Research Member, King Fahd University of Petroleum & Minerals, Dhahran-Saudi Arabia
Project title: Estimating $P(Y < X)$ using Ranked Set Sampling in Case of the Exponential Distribution.
- **May 2006– April 2007:** Research Member, King Fahd University of Petroleum & Minerals, Dhahran-Saudi Arabia
Project title: Improving the academic performance of the students.
Duties:
 1. Collecting data about students grades in different courses and their admission tests.
 2. Analyzing data using MINITAB software.
 3. Writing the results report.
- **January 2006– June 2007:** Research Member, King Fahd University of Petroleum & Minerals, Dhahran-Saudi Arabia
Project title: Confidence interval estimation of the location and scale parameters of the logistic distribution using pivotal methods.

Publication, Peer Reviewed

- (2021) Nzila Alexis, Musa Musa M. , Sankara Saravanan, **Al-Momani Marwan**, Xiang Lei, and Li, Qing X. Degradation of benzo[a]pyrene by halophilic bacterial strain *Staphylococcus haemolyticus* strain 10SBZ1A. PLOS ONE.2021;16,p:1-17. (**An ISI Journal**)
- (2020) **Marwan Al-Momani**, S.E. Ahmed, and A. Hussein. Efficient Estimation Strategies for Spatial Moving Average Model. Proceedings of The Thirteenth International Conference on Management Science and Engineering Management. Advances in Intelligent Systems and Computing, Springer International Publishing.2020;520-543.
- (2019) Alexis Nzila, Shaikh Abdur Razzak, Saravanan Sankara, Mazen K Nazal, Gi-Ung Kang, Jerald Conrad Ibal, Jao-Ho Shin, **Marwan Al-Momani**. Characterisation and microbial community analysis of lipid utilising microorganisms for biogas formation. PLOS ONE. 2019;14(11):e0224989

- (2018) Fitri Budiyanto, Assad Thukair, **Marwan Al-Momani**, Musa M. Musa, Alexis Nzila. Characterization of Halophilic Bacteria Capable of Efficiently Biodegrading the High-Molecular-Weight Polycyclic Aromatic Hydrocarbon Pyrene. *Environmental Engineering Science*. ,Vol.35 , No.6 p:616-626. (**An ISI Journal**)
- (2018) Abdaljbbar B. A. Dawod, Saddam Akber Abbasi, **Marwan Al-Momani**. On the Performance of Coefficient of Variation Control Chart in Phase I. *Quality and Reliability Engineering International*. (<https://onlinelibrary.wiley.com/doi/abs/10.1002/qre.2305>). (**An ISI Journal**)
- (2018) Abdaljbbar B. A. Dawod, **Marwan Al-Momani**, Saddam Akber Abbasi. On Efficient Estimation Strategies in Monitoring of Linear Profiles. *The International Journal of Advanced Manufacturing Technology*, (<http://rdcu.be/Jf7S>). (**An ISI Journal**)
- (2018) Alexis Nzila, Saravanan Snkara, **Marwan Al-Momani**, Musa M. Musa, . Isolation and characterisation of bacteria degrading polycyclic aromatic hydrocarbons: phenanthrene and anthracene. *Archives of Environmental Protection* ,Vol.44,No.2 p:43-54. (**An ISI Journal**)
- (2017) **Marwan Al-Momani**, S.E. Ahmed, and A. Hussein. Penalty And Related Estimation Strategies In Spatial Error Model. *Statistica Neerlandica*, Vol. 71, No. 1, p 4-30.(**An ISI Journal**)
- (2015) Severien Nkurunziza, **Marwan Al-Momani**, and Eric Yu Lin. Shrinkage and LASSO Strategies in high dimensional Heteroscedastic models. *Communications in Statistics - Theory and Methods*. (URL:<http://dx.doi.org/10.1080/03610926.2014.921305>).(**An ISI Journal**)
- (2014) S. E. Ahmed, A. Hussein and **Marwan Al-Momani**. Efficient Estimation for the Conditional Autoregressive Model. *Journal of Statistical Computation and Simulation*. [SPECIAL ISSUE: Matrix], p 1-13. (**An ISI Journal**)
- (2011) Hassen A. Muttalak, S. Ejaz Ahmed and **Marwan Al-Momani**. Estimation using two-sample theory in ranked set sampling. *Pakistan Journal of Statistics*, Vol. 27, No. 3, p 241-256.(**An ISI Journal**)
- (2011) Muttalak, H. A. and Abu-Dayyeh, W. A. and Al-Sawi, E. and **Marwan Al-Momani**. Confidence interval estimation of the location and scale parameters of the logistic distribution using pivotal method. *Journal of Statistical Computation and Simulation*, Vol.81, No.4, p 391-409.(**An ISI Journal**)
- (2010) Muttalak, H. A. and Ahmed, S. E. and **Marwan Al-Momani**. Shrinkage estimation in replicated median ranked set sampling. *Journal of Statistical Computation and Simulation*, Vol. 80, No. 11, p 1185-1196.(**An ISI Journal**)
- (2005) Walid Abu-Dayyeh Z. R. Al-Rawi **Marwan Al-Momani**. Local Power for Combining Independent Tests in The Presence of Nuisance Parameters for the Logistic Distribution. *Journal of Modern Applied Statistical Methods*, Vol.4, No. 1, p 75-80.
- (2004) Walid Abu-Dayyeh and Z.R. Al-Rawi and **Marwan Al-Momani**. Local power for combining independent tests in the presence of nuisance parameters for the normal distribution. *Applied Mathematics and Computation*, Vol. 147, No. 3, p 687-698.(**An ISI Journal**)

- (2004) Walid Abu-Dayyeh and **Marwan Al-Momani** and Muttlak H. A. Exact Bahadur Slope for Combining Independent Tests for Exponential Distribution using Simple Random Sampling and Ranked Set Sampling Data. Journal of Statistical Theory and Applications. Vol. 3, No.2, p159-172.
- (2003) Walid A. Abu-Dayyeh and **Marwan Al-Momani** and Hassen A. Muttlak. Exact Bahadur slope for combining independent tests for normal and logistic distributions. Applied Mathematics and Computation, Vol.135, No.2-3, p 345-360(**An ISI Journal**)

Service to the Statistics Community:

- 2013-present: Reviewed papers for Journal of Statistical Computation and Simulation.
- 2014-present: Reviewed papers for Pakistani Journal of Statistics.
- 2016-present: Reviewed papers for Journal of Mathematics and Statistics.
- 2019-present: Transportmetrica A: Transport Science

Conference and Posters

- (2019) The Thirteenth International Conference on Management Science and Engineering Management. Brock University, St. Catharines, ON, Canada. August 5-8, 2019
- (2015) The 25th Annual Conference of The International Environmetrics Society (TIES). November 21-25, 2015 United Arab Emirates, Al Ain UAE. "Penalty and Related Estimation Strategies in Simultaneous Auto regressive Model". **Invited Speaker**.
- (2011) Abdulkadir A. Hussein , Marwan Al-Momani and Ahmed, S. E, " To homogenize or not to homogenize: the case of mixed models', International Workshop on Perspectives on High dimensional Data Analysis, Fields Institute, Toronto, Canada, June 9 to 11, 2011.

Departmental Committees

- [Summer 2014/2015] Math-101 Exam committee (**Chairman**)
- [Fall 2015/2016] Math-101 Exam committee (**Chairman**)
- [Summer 2017-present] Graduate committee (Member)
- [Winter 2018/2019] Math-105 Exam committee (Member)
- [Winter 2017-Fall 2018] B.Sc-program Of Data Sciences committee (Member)
- [Fall 2018-Present] B.Sc-program Of Data Sciences committee (**Chairman**)
- [Fall 2019] Math-101 Exam committee (Member)

- [Many terms] Stat-319 Exam committee (Member)
- [Many terms] Stat-211 Exam committee (Member)

Student Supervision

I supervised the following students

- Graduate
Dawod, Abdaljbbar: M.Sc. Student in applied Statistics. (Graduated May 2017)

Thesis Title: On Efficient Estimation of Control Chart Parameters for Normal and Auto-correlated Processes.
- Undergraduate
 1. Ali BuKhamsin :B.Sc. project in Actuarial Sciences (COOP). (Graduated 2016)
 2. Anas Bahmaid :B.Sc. project in Actuarial Sciences (COOP). (Graduated 2018)

Courses Taught

- Graduate Level:

Course Code	Course Name	University
STAT-501	Probability And Mathematical Statistics	King Fahd University
STAT-502	Statistical Inference	King Fahd University

- Undergraduate Level:

Professional Development

- August 20 - 20, 2015: King Fahd University of Petroleum & Minerals- Saudi Arabia. "Changes in Outcomes Assessment for Accreditation: The Case of Teacher Education in the United States" .
- August 19 - 19, 2015: King Fahd University of Petroleum & Minerals- Saudi Arabia. " Approaches to Assigning Grades".
- August 19 - 19, 2015: King Fahd University of Petroleum & Minerals- Saudi Arabia. "Evaluating Higher-Order Thinking Skills"

Course Code	Course Name	University
STAT-460	Time Series	King Fahd University
STAT-416	Stochastic Processes for Actuaries	King Fahd University
STAT-319	Probability and Statistics for Engineers and Scientists	King Fahd University
STAT-319-Lab	Probability and Statistics for Engineers and Scientists	King Fahd University
STAT-301	Introduction to Probability Theory	King Fahd University
STAT-302	Statistical Inference	King Fahd University
STAT-212	Statistics for Business II	King Fahd University
STAT-211	Statistics for Business I	King Fahd University
STAT-205	Statistics for the Sciences	University of Windsor
Math-141	Calculus II	University of Windsor
Math-131	Finite Mathematics	King Fahd University
Math-105	Finite Mathematics	King Fahd University
Math-102	Calculus II	King Fahd University
Math-101	Calculus I	King Fahd University
Math-002	Preparatory Mathematics II	King Fahd University
Math-001	Preparatory Mathematics I	King Fahd University

- August 18-18, 2015: King Fahd University of Petroleum & Minerals- Saudi Arabia. "Evaluating the Quality of Examinations: Reliability, Validity, and Fairness"
- April 20 - 20, 2015: King Fahd University of Petroleum & Minerals- Saudi Arabia. "Test and Item Statistical Analysis Workshop".
- Sep. 9 - 11, 2002. King Fahd University of Petroleum & Minerals- Saudi Arabia. "Increasing Effectiveness as a University Teacher "
- Sep. 7 - 10, 2003. King Fahd University of Petroleum & Minerals- Saudi Arabia. "Critical Thinking".
- July, 10-14, 2004. King Fahd University of Petroleum & Minerals- Saudi Arabia. "Introduction to WebCT".
- Sep.3 - 3, 2005. King Fahd University of Petroleum & Minerals- Saudi Arabia. "Evaluating the Quality of Teaching: An Institutional Framework"
- Sept. 4 - 4, 2005. King Fahd University of Petroleum & Minerals- Saudi Arabia. "Graduates for Tomorrow's World: Developing University Curricula and Teaching for Generic Attributes"
- April 1 - 8, 2007. King Fahd University of Petroleum & Minerals- Saudi Arabia. "Publishing Content and Quizzes in WebCT".

Computer Skills

- Use of the following Statistical and Mathematical Softwares: R, MATHEMATICA, STATISTICA, MINITAB packages.
- Use of Windows, Microsoft Office, LATEX and Internet.

Languages

- Arabic: Mother tongue.
- English:(Level: Excellent in Speaking and Writing)

Referees

- Ahmed, S.Ejaz., Professor, Brock University, Department of Mathematics.
Email: sahmed5@brocku.ca
(905)-688-5550, Ext. 3421.
- Abdulkadir Hussein, Associate Professor, University of Windsor, Department of Mathematics and Statistics.
Email: ahussein@uwindsor.ca
(519) 253-3000, Ext. 3033
- Severien Nkurunziza, Associate professor, University of Windsor, Department of Mathematics and Statistics.
Email: severien@uwindsor.ca
(519) 253-3000, Ext. 3017
- Myron Hlynka, Professor, University of Windsor, Department of Mathematics and Statistics.
Email: hlynka@uwindsor.ca
(519) 253-3000, Ext. 3014.