Waleed Khalaf M. Almutiry, Ph.D.

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Current Position

Assistant Professor of Applied Statistics (Biostatistics) — September, 2018 – present
College of Arts and Sciences, Ar Rass,
Qassim University

Education

Ph.D. (Applied Statistics; Application in Biostatistics and Epidemiology), 2014 - 2018
University of Guelph, Guelph, Canada

Supervisor: Dr. Zeny Feng & Dr. Rob Deardon

Dissertation: Incorporating Contact Network Uncertainty in Individual Level Models of Infectious Disease within a Bayesian Framework.

M.Sc. (Statistics; Medical statistics pathway), 2008 - 2009
University of Lancaster, England

Supervisor: Dr. Debbie Costain

Dissertation: Modelling the nasal carriage of Staphylococcus aurues in mothers and their infants over time.

B.Sc. (Mathematics), 1998 - 2002
Qassim University, Saudi Arabia

Research Interests

- Infectious Disease Epidemiology for humans, animals, and plants.
- Spatial and network-based disease systems.
- Clinical trial epidemiology.
- Bayesian and Computational Statistics.
- Statistical and machine learning.
- Longitudinal Data Analysis.

Research Papers

Submitted & Published:

- **Almutiry, W.** and Deardon, R., (2019). Incorporating contact network uncertainty in individual level models of infectious disease using approximate Bayesian computation. *The International Journal of Biostatistics*, 20170092, ISSN (Online) 1557-4679, DOI: https://doi.org/10.1515/ijb-2017-0092.
- Otmani, S., Boulaaras, S., and **Almutiry, W.,** (2020). The maximum norm analysis of a nonmatching grids method for a class of parabolic biharmonic equation with mixed boundary condition. Journal of Intelligent & Fuzzy Systems, 38(3), 2551-2560, DOI: 10.3233/JIFS-179542.
- **Almutiry, W.**, Warriyar, K. V. and Deardon, R. (2020). Continuous Time Individual-Level Models of Infectious Disease: EpiILMCT. *The Journal of Statistical Software, **(In Print)***.
- **Almutiry, W.** and Deardon, R. (2020). Spatial contact network uncertainty in individual level models of infectious disease transmission. *Statistical Communications in Infectious Diseases*, ***(revision requested)***.
- Warriyar, K.V., **Almutiry, W.**, and Deardon, R. (2020). Individual level modelling of infectious disease data: EpiILM. *The R Journal **(revision requested)***.

To be Submitted:

- **Almutiry, W.** and Deardon, R. Contact network uncertainty in individual level models of infectious disease transmission using within cluster likelihood approximations.
- **Mahsin, M.**, Almutiry, W., and Deardon, R. Real-time modeling of infectious disease transmission using geographically-dependent individual-level models.

Collaborative Research

- Collaborating with Md Mahsin (a PhD candidate in Dr. Rob Deardon research group), Calgary University, Canada. We are working on *developing continuous time geographically-dependent individual level models for studying the spread of infectious disease*.
- Collaborating with Dr. Muteb Alharthi (Assistant Professor of Applied Statistics, Taif University) in *modelling the spread of Middle East respiratory syndrome coronavirus (MERS-CoV) in Saudi Arabia*.

R[1] Packages

- **EpiILMCT: Almutiry, W.**, Warriyar, K. V., Deardon, R. (2019). EpiILMCT: Continuous Time Distance- Based and Network-Based Individual Level Models for Epidemics. R package version 1.1.4, URL https://CRAN.R-project.org/package=EpiILMCT .
- **EpiILM:** Warriyar, K. V., **Almutiry, W.**, Deardon, R. (2020). EpiILM: Spatial and Network Based Individual Level Models for Epidemics**. (to be updated in CRAN SOON)**

Conference Presentations

- Incorporating contact network uncertainty in individual level models of infectious disease using approximate Bayesian computation, Statistical Society of Canada Annual Meeting 2017, University of Manitoba, Winnipeg, Canada.
- Incorporating contact network uncertainty in individual level models of infectious disease using approximate Bayesian computation, Canadian Society for Epidemiology and Biostatistics (CSEB) Biennial Conference 2017, Banff, Alberta, Canada.

Professional Experiences

Applied Health Science College, Ar Rass, Qassim University, Saudi Arabia
- Director of preparatory year program — January, 2011 – August, 2012

Applied Health Science College, Ar Rass, Qassim University, Saudi Arabia
- A lecturer of statistics — October, 2009 – August, 2012

Applied Health Science College, Ar Rass, Qassim University, Saudi Arabia
- Director of information and statistics centre — January, 2004 – December, 2006

Applied Health Science College, Ar Rass, Qassim University, Saudi Arabia
- A teaching assistant of Mathematics and statistics — December, 2003 – October, 2009

Technical College, Alkharj, Saudi Arabia
- A teacher of Mathematics — September, 2002 – December, 2003

Computer Skills

Operating systems: Windows and MAC OS.

Programming languages: expert in Fortran (OpenMP, MPI) and intermediate in Python.

Statistical software: professional in R programming and good at S-PLUS, MATLAB, SAS, SPSS.

Other software: LaTeX and Microsoft Office.

Professional Memberships

- American Statistical Association.
- Statistical Society of Canada.

Languages

- Arabic and English.

[1] R is a freely available popular language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques.