Publication List

(Research Group Members Shown in Italics)

Submitted Articles

- 89. *M. Mahsin*, W. Almutiry & R. Deardon "Spatial modeling of infectious disease transmission using continuous time geographically-dependent individual-level models" submitted to *Statistics in Medicine*.
- 88. M. Pasha, R. Deardon & A. Rahim "Multi-response and multi-cause process monitoring by applying proportional hazards models in the optimal design of T^2 control charts" submitted to Computers & Industrial Engineering.
- 87. *M. Pasha*, R. Deardon & A. Rahim "Multi-response process monitoring with T2 control charts under multiple assignable causes" submitted to *Quality Technology and Quantitative Management*.

Accepted/In Press

- 86. *M. Ward*, R. Deardon, L. Deeth (2024) "A framework for incorporating behavioural change into individual-level spatial epidemic models" to appear in the *Canadian Journal of Statistics*. http://arxiv.org/abs/2308.00815
- 85. **T. Akter** & **R. Deardon** (2024) "Conditional logistic individual-level models of spatial infectious disease dynamics" to appear in *Infectious Disease Modelling*. https://doi.org/10.48550/arXiv.2409.02353
- 84. *C. Rahul* & R. Deardon (2024) "Behavioural change piecewise constant spatial epidemic models" to appear in *Infectious Disease Modelling*.

Published Articles

- 83. C. Rahul & R. Deardon (2024) "Individual-level models of disease transmission incorporating non-parametric spatial risk" in Spatial & Spatiotemporal Epidemiology, 50, 100664. https://doi.org/10.1016/j.sste.2024.100664
- 82. **E.** Hodzic-Santor & R. Deardon (2024) "Edge effects in spatial infectious disease models" in Spatial & Spatiotemporal Epidemiology, 50, 100673. https://doi.org/10.1016/j.sste.2024.100673
- 81. M. Biesheuvel, *C. Ward*, P. Penterman, E. van Engelen, G. Schaik, **R. Deardon** & H. Barkema (2024) "Within-herd transmission of *Mycoplasma bovis* infection in 20 Dutch dairy herds" in *Journal of Dairy Science*, 107(1):503-516. https://doi.org/10.3168/jds.2023-23407
- 80. C. Ward, R. Deardon & A. Schmidt (2023) "Bayesian modelling of dynamic behavioural change during an epidemic" Infectious Disease Modelling, 8(4), 947-963. https://doi.org/10.1016/j.idm.2023.08.002
- 79. **L. Amiri**, M. Torabi & **R. Deardon** (2023) "Spatial modelling of infectious diseases with covariate measurement error" in *Journal of the Royal Statistical Society: Series C*, 73(2), 460-477. https://doi.org/10.1093/jrsssc/qlad104

78. *L. Amiri*, M. Torabi & R. Deardon (2023) "Analyzing COVID-19 data in the Canadian Province of Manitoba: A new approach" in *Spatial Statistics*, 55:100729. doi: 10.1016/j.spasta.2023.100729.

- 77. **T. Akter** & **R. Deardon** (2023) "Comparison of variable screening methods in infectious disease transmission models" in *Spatial and Spatiotemporal Epidemiology*, 47, 100622.
- 76. M. Kamso, J. Pardo, S. Whittle, R. Buchbinder, G. Wells, V. Glennon, P. Tugwell, R. Deardon, T. Sajobi, G. Tomlinson, J. Elliot, S. Kelly & G. Hazlewood (2023). "Crowdsourcing and automation facilitated the identification and classification of randomized controlled trials in a living review' in Journal of Clinical Epidemiology, 164, 1-8. https://doi.org/10.1016/j.jclinepi.2023.10.007
- 75. *M. Pasha*, R. Deardon & A. Rahim (2023) "A study on inspection schemes in optimal design of control charts for deteriorating processes" in *Quality and Reliability Engineering International*, 39(3), 732-751. https://doi.org/10.1002/qre.3253
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- 73. **J. Angevaare**, Z. Feng & **R. Deardon** (2022) "Pathogen.jl: Infectious disease transmission network modelling with Julia" in *Journal of Statistical Software*, 104(4), 1?30.
- 72. **G. Pokharel** & **R. Deardon** (2022) "Emulation-based inference for spatial infectious disease transmission models incorporating event time uncertainty" in the *Scandinavian Journal of Statistics*, 49(1), 455-479. http://doi.org/10.1111/sjos.12523
- 71. **M. Ward**, L. Deeth & **R. Deardon** (2022) "Cluster-aggretion-disaggregation methods for spatial individual level models of infectious disease transmission" in *Spatial & Spatiotemporal Epidemiology*, 41: 100497. https://doi.org/10.1016/j.sste.2022.100497
- S. A. Naqvi, M. King, T. DeVries, H. Barkema & R. Deardon (2022) "Data considerations for developing deep learning models for dairy applications" in Computers and Electronics in Agriculture, 196: 106895. https://doi.org/10.1016/j.compag.2022.106895
- 69. S. A. Naqvi, M. King, R. Matson, T. DeVries, R. Deardon & H. Barkema (2022) "Mastitis detection with recurrent neural networks in farms using automated milking systems" in Computers and Electronics in Agriculture, 192: 106618. https://doi.org/10.1016/j.compag.2021.106618
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- 66. W. Almutiry, V. Warriyar & R. Deardon (2021) "Continuous-time individual-level models of infectious disease: EpiILMCT" in the Journal of Statistical Software, 98(10), 1-44. https://www.jstatsoft.org/article/view/v098i10
- 65. *L. Amiri*, M. Torabi, **R. Deardon** & M. Pickles (2021). "Spatial modeling of individual-level infectious disease transmission: tuberculosis data in Manitoba, Canada" in *Statistics in Medicine*, 40(7), 1678-1704. https://doi.org/10.1002/sim.8863
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- 55. **V. Warriyar**, **W. Almutiry** & **R. Deardon** (2020) "Individual level modelling of infectious disease data: EpiILM" in *The R Journal* 12(1), 199-217.
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- 49. A. Ogilvy, S. Collins, T. Tuokko, M. Hilts, **R. Deardon**, W. Hare & A. Jirasek (2020) "Optimization of solid tank design for fan-beam optical CT based 3D radiation dosimetry" in *Physics in Medicine & Biology*. 65, 245012. https://doi.org/10.1088/1361-6560/abbf98
- 48. *C. Augusta*, R. Deardon & G. Taylor (2019) "Deep learning for supervised classification of spatial epidemics" in *Spatial & Spatiotemporal Epidemiology*, 29, 187-198.
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- 46. *C. Augusta*, G. Taylor & **R. Deardon** (2019) "Dynamic contact networks of swine movement in Manitoba, Canada: characterization and implications for infectious disease spread" in *Trans-boundary and Emerging Diseases*, 66(6), 1910 1919. DOI: https://doi.org/10.1111/tbed.13220.
- 45. *G. Pokharel*, R. Deardon, C. Barnabe, V. Bykerk, S. Bartlett, L. Bessette, G. Boire, C. Hitchon, E. Keystone, J. Pope, O. Schieer, D. Tin, C.Thorne & G. Hazelwood (2019) "Joint estimation of remission and response for methotrexate-based DMARD options in rheumatoid arthritis: A bivariate network meta-analysis" in *ACR Open Rheumatology*, 1(8), 471-479. https://onlinelibrary.wiley.com/doi/epdf/10.1002/acr2.11052.
- 44. *M. Lowerison*, C. Josephson, N. Jette, T. Sajobi, S. Patten, T. Williamson, R. Deardon, H. Barkema, & S. Wiebe (2019) "Association of levels of specialized care with risk of premature mortality in patients with epilepsy" in *JAMA Neurology*, 76(11), 1352-1358. DOI: https://doi.org/10.1001/jamaneurol.2019.2268
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- 40. **G. Pokharel** & **R. Deardon** (2018) "Spatially informed back-calculation for spatio-temporal infectious disease models" in *Statistical Communications in Infectious Diseases*, Vol. 10(1), Article 2.
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- 28. **G. Pokharel** & **R. Deardon** (2014) "Supervised learning and prediction of spatial epidemics" in Spatial & Spatio-Temporal Epidemiology, 11, 59-77.
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Software

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