Publication List

(Research Group Members Shown in Italics)

Submitted Articles

- 88. *M. Ward*, R. Deardon, L. Deeth "A framework for incorporating behavioural change into individual-level spatial epidemic models" submitted to the *Canadian Journal of Statistics* (revision requested). http://arxiv.org/abs/2308.00815
- 87. *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*.
- 86. M. Lewis, P. Brown, C. Colijn, L. Cowen, C. Cotton, T. Day, **R. Deardon**, D. Earn, D. Haskell, J. Hefferman, P. Leighton, K. Murty, S. Otto, E. Rafferty, C. Hughes Tuohy, J. Wu & H. Zhu "Charting a future for emerging infectious disease modelling in Canada" submitted to *Facets*. http://hdl.handle.net/1828/15042.
- 85. **E. Hodzic-Santor** & **R. Deardon** "Edge effects in spatial infectious disease models" submitted to Spatial & Spatiotemporal Epidemiology
- 84. *C. Rahul* & R. Deardon "Individual-level models of disease transmission incorporating non-parametric spatial risk" submitted to *Spatial & Spatiotemporal Epidemiology*
- 83. 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.
- 82. *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*.

Published Articles

- 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*, qlad104 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
- 74. *M. Mahsin*, R. Deardon & P. Brown (2022) "Geographically-dependent individual-level models for infectious diseases transmission" in *Biostatistics*, 23(1), 1-17. https://doi.org/10.1093/biostatistics/kxaa009
- 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
- 70. 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
- 68. **B. Jafari** & **R. Deardon** (2022) "Bias and Bias-Correction for Individual-Level Models of Infectious Disease" in *Spatial & Spatiotemporal Epidemiology*, 43, 100524.
- 67. J. Di Francesco, G.P.S. Kwong, **R. Deardon**, S. L. Checkley, G. F. Mastromonaco, F. Mavrot, L. Leclerc & S. Kutz (2022) "Intrinsic and extrinsic factors associated with increased qiviut cortisol in wild muskoxen (Ovibos moschatus)" in *Conservation Physiology*, 10(1), coab103. https://doi.org/10.1093/conphys/coab103
- 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
- 64. **J. Angevaare**, Z. Feng & **R. Deardon** (2021) "Inference of latent event times and transmission network in individual level infectious disease models" in *Spatial & Spatiotemporal Epidemiology*, 37, 100410. https://doi.org/10.1016/j.sste.2021.100410
- 63. W. Almutiry & R. Deardon (2021) "Contact network uncertainty in individual level models of infectious disease transmission" in *Statistical Communications in Infectious Diseases*, 13(1). DOI: https://doi.org/10.1515/scid-2019-0012

62. **Z. Liu**, **R. Deardon**, Y. Fu, **T. Ferdous**, T. Ware & Q. Cheng (2021) "Estimating parameters of two-level individual-level models of the COVID-19 epidemic using ensemble learning classifiers" in *Frontiers in Physics*, 8(11), Article 602722. doi: 10.3389/fphy.2020.602722

- 61. **A. Novaes de Amorim**, V. Saini & **R. Deardon** (2021) "A stacked ensemble method for forecasting influenza-like illness visit volumes at emergency departments" in *PLOS One*, 16(3): e0241725. https://doi.org/10.1371/journal.pone.0241725
- 60. S. Andres-Lasheras, R. Ha, R. Zaheer, C. Lee, C. Booker, C. Dorin, J. Van Donkersgoed, R. Deardon, S. Gow, S. Hannon, S. Hendrick, M. Anholt & T. McAllister (2021) "Prevalence and risk factors associated with antimicrobial resistance in bacteria related to bovine respiratory disease A broad cross-sectional study of beef cattle at entry into Canadian feedlots" in Frontiers in Veterinary Science, 8, 710. doi: 10.3389/fvets.2021.692646
- 59. B. Singh, *M. Lowerison*, R. Lewinson, I. Vallerand, *R. Deardon*, J. Gill, B. Singh & H. Barkema (2021) "Public health interventions slowed but did not halt the spread of COVID-19 in India" in *Transboundary and Emerging Diseases*, 68(4), 2171-2187. https://doi.org/10.1111/tbed.13868
- 58. C. Doolan, T. Louie, C. Lata, O. Larios, W. Stokes, J. Kim, K. Brown, P. Beck, **R. Deardon** & D. Pillai (2021) "Latent class analysis for the diagnosis of Clostridioides difficile infection" in *Clinical Infectious Diseases*, 73(9):e2673-e2679. https://doi.org/10.1093/cid/ciaa1553
- 57. B. Singh, M. Ward, *M. Lowerison*, R. Lewinson, I. Vallerand, **R. Deardon**, J. Gill, B. Singh & H. Barkema (2021) "Meta-analysis and adjusted estimation of COVID-19 case fatality risk in India and its association with the underlying comorbidities" in *One Health*, 13:100283. https://doi.org/10.1016/j.onehlt.2021.100283.
- 56. W. Almutiry & R. Deardon (2020) "Incorporating contact network uncertainty in individual level models of infectious disease using approximate Bayesian computation" in *The International Journal of Biostatistics*, 16(1), Article 20170092. DOI: https://doi.org/10.1515/ijb-2017-0092
- 55. V. Warriyar, W. Almutiry & R. Deardon (2020) "Individual level modelling of infectious disease data: EpiILM" in The R Journal 12(1), 199-217.
- 54. G. Hazelwood, *G. Pokharel*, R. Deardon, D. Marshall, C. Bombardier, G. Tomlinson, C. Ma, C. Seow, R. Panaccione & G. Kaplan (2020) "Patient preferences for maintenance therapy in Crohn's disease: a discrete-choice experiment" in *PLoS One*, 15(1):e0227635.
- 53. G.P.S. Kwong, **R. Deardon**, *S. Hunt* & M. Guerin (2020) "Bayesian optimal design of agricultural infectious disease transmission experiments" available online in *Statistical Communications in Infectious Diseases*, 12(1). https://doi.org/10.1515/scid-2018-0005
- 52. **R. Romanescu** & **R. Deardon** (2020) "Implementation of power law network models of epidemic surveillance data for better evaluation of outbreak detection alarms" in *Statistical Communications in Infectious Diseases*, 12(1). https://doi.org/10.1515/scid-2018-0004.
- 51. D. Nobrega, *S. A. Naqvi*, S. Dufour, **R. Deardon**, J. Kastelic, J. de Buck & H. Barkema (2020) "Critically important antimicrobials are not needed to treat non-severe clinical mastitis in lactating dairy cows: results from a network meta-analysis" in the *Journal of Dairy Science*, 103(11), 10585-10603. https://doi.org/10.3168/jds.2020-18365
- 50. *G. Pokharel*, R. Deardon, S. Johnson, G. Tomlinson, P. Hull, G. Hazelwood (2020) "Effectiveness of initial methotrexate-based treatment approaches in early rheumatoid arthritis: An elicitation of rheumatologists' beliefs" in *Rheumatology*, keaa803. https://doi.org/10.1093/rheumatology/keaa803

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.
- 47. *M. Ward*, *A. Stanley*, L. Deeth **R. Deardon**, Z. Feng & L. Trotz-Williams (2019) "Methods for detecting seasonal influenza epidemics using a school absenteeism surveillance system" in *BMC Public Health*, 19, Article: 1232.
- 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
- 43. S. Coward, F. Clement, E. Benchimol, C. Bernstein, J. Antonio Avina-Zubieta, A. Bitton, M. Carroll, G. Hazelwood, K. Jacobson, S. Jelinski, R. Deardon, J. Jones, M. Ellen Kuenzig, D. Leddin, K. McBrien, S. Murphy, G. Nguyen, A. Otley, R. Pannaccione, A. Rezaie, G. Rosenfeld, J. Pena-Sanchez, H. Singh, L. Targownik, G. Kaplan (2019) "Past and future burden of inflammatory bowel diseases based on modeling of population-based data" in Gastroenterology, 156(5), 1345-1353.
- 42. J. Cheaveau, D. Marasinghe, S. Akakpo, **R. Deardon**, C. Naugler, A. Chin, D. R. Pillai (2019) "The impact of malaria on liver enzymes: a retrospective cohort study (2010-2017)" in *Open Forum Infectious Diseases*, 6(6).
- 41. T. Petukhova, D. Ojkic, B. McEwen, **R. Deardon** & Z. Poljak (2018) "Assessment of ARIMA, GLARMA and random forest models for predicting Influenza A virus frequency in swine in Ontario, Canada" in *PLoS One*, 13(6): e0198313.
- 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.
- 39. M. Lipson, **R. Deardon**, N. Switzer, C. DeGara, C. Ball & S. Grondin (2018) "Practice and attitudes regarding double gloving among staff surgeons and surgical trainees" in the *Canadian Journal of Surgery*, 61(4), 244-250.
- 38. D. Toms, **R. Deardon** & M. Ungrin (2017) "Climbing the mountain: Experimental design for efficient optimization of stem cell bioprocessing" in the *Journal of Biological Engineering*, Vol. 11, No. 1
- 37. **R. Romanescu** & **R. Deardon** (2017) "Fast inference for network models of infectious disease spread" in the *Scandinavian Journal of Statistics*, 44(3), 666-683 (DOI: 10.1111/sjos.12270).

36. G. Pokharel & R. Deardon (2016) "Gaussian process emulators for spatial models of infectious disease" in the Canadian Journal of Statistics, 44(4), 480-501.

- 35. **R. Romanescu** & **R. Deardon** (2016) "Modelling two strains of disease via aggregate-level infectivity curves" in the *Journal of Mathematical Biology*, 72(5), 1195-1224.
- 34. *L. Deeth* & R. Deardon (2016) "Spatial data aggregation for spatio-temporal individual-level models of infectious disease transmission" in *Spatial & Spatio-temporal Epidemiology*, 17, 95-104.
- 33. **R. Malik**, **R. Deardon** & **G.P.S. Kwong** (2016) "Parameterizing spatial models of infectious disease spread using sampling-based likelihood approximations" in *PLoS One*, 11(1): e0146253. doi: 10.1371/journal.pone.0146253.
- 32. **L. Deeth**, **R. Deardon** & D. Gillis (2015) "Model choice using the Deviance Information Criterion for latent conditional individual-level models of infectious disease spread" in *Epidemiologic Methods*, 4(1), 47-68.
- 31. **R. Deardon**, *X. Fang* & *G.P.S. Kwong* (2015) "Statistical modelling of spatio-temporal infectious disease transmission" in *Analyzing and Modeling Spatial and Temporal Dynamics of Infectious Diseases*, 211-232, John Wiley & Sons. (Ed: D. Chen, B. Moulin, J. Wu).
- 30. T. J. McKinley, J. Ross, **R. Deardon** & A. Cook (2014) "Simulation-based Bayesian inference for epidemic models" in *Computational Statistics & Data Analysis*, 71, 434-447.
- 29. *R. Malik*, R. Deardon, *G.P.S. Kwong* & B. J. Cowling (2014) "Individual-level modeling of the spread of influenza within households" in *Journal of Applied Statistics*, 41(7), 1578-1592.
- 28. **G. Pokharel** & **R. Deardon** (2014) "Supervised learning and prediction of spatial epidemics" in Spatial & Spatio-Temporal Epidemiology, 11, 59-77.
- 27. L. Deeth & R. Deardon (2013) "Latent conditional individual level models for infectious disease modelling" in The International Journal of Biostatistics, 9(1), 75-93.
- 26. **S. Subedi**, Z. Feng, **R. Deardon** & F. Schenkel (2013) "SNP selection for predicting a quantitative trait" in the *Journal of Applied Statistics*, 40(3), 600-613.
- 25. **N. Bifolchi**, **R. Deardon** & Z. Feng (2013) "Spatial approximations of network-based individual level infectious disease models" in *Spatial & Spatio-temporal Epidemiology*, 6, 59-70.
- 24. T. Agvar, R. Deardon & J. Fryxyll (2013) "An empirically parameterized individual based model of animal movement, perception and memory" in *Ecological Modelling*, 251: 158-172.
- 23. K. Bottoms, Z. Poljak, C. Dewey, **R. Deardon**, D. Holtkamp & R. Friendship (2013) "Evaluation of external biosecurity practices on southern Ontario farms" in *Preventive Veterinary Medicine*, 109(1-2):58-68.
- 22. *G.P.S. Kwong*, Z. Poljak, **R. Deardon** & C. Dewey (2013) "Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data" in *Preventive Veterinary Medicine*, 110(3-4):405-17.
- 21. K. Bottoms, Z. Poljak, B. Friendship, J. Alsop, **R. Deardon** & C. Dewey (2013) "An assessment of external biosecurity on southern Ontario swine farms, and its application to surveillance on a geographic level" in the *Canadian Journal of Veterinary Research*, 77(4), 241 253.

20. *I.Vrbik*, R. Deardon, Z. Feng, *A. Gardner* & J. Braun (2012) "Using individual-level models to model the spatio-temporal dynamics of combustion" in *Bayesian Analysis*, 7(3), 615 – 638. (Funded by: NSERC).

- 19. **G.P.S. Kwong & R. Deardon** (2012) "Linearized forms of individual-level models for large-scale spatial infectious disease systems" in *Bulletin of Mathematical Biology*, 74(8), 1912 37. (Funded by: NSERC, OMAFRA).
- 18. Y. Hosseinkashi, S. Chenouri, C. Small & **R. Deardon** (2012) "A Stochastic Graph Process for Epidemic Modelling" in *Canadian Journal of Statistics*, 40(1), 55 67. (Funded by: NSERC).
- 17. R. Deardon, B. Habibzadeh & H. Y. Chung (2012) "Spatial measurement error in infectious disease models" in Journal of Applied Statistics, 39(5), 1139 1150. (Funded by: NSERC).
- 16. J. Gallienne, C. Gregg, E. LeBlanc, N. Yaakob, D. Wu, K. Davies, N. Rawlings, Pierson, R. Deardon, & Bartlewski "Correlations between ultrasonographic characteristics of corpora lutea (CL) and systemic concentrations of progesterone (P4) during the discrete stages of CL lifespan and secretory activity in cyclic ewes" in Experimental Biology and Medicine, 237, 505 515.
- 15. H. Le, Z. Poljak, **R. Deardon** & C. Dewey (2012) "Clustering of and risk factors for the porcine high fever disease in a region of Vietnam" in *Trans-boundary and Emerging Diseases*, 59(1), 49 61.
- 14. K. Bottoms, Z. Poljak, C. Dewey, **R. Deardon**, D. Holtkamp & R. Friendship (2012) "Investigation of strategies for the introduction and transportation of replacement gilts on southern Ontario sow farms" in *BMC Veterinary Research*, 8, 217.
- 13. **A. Gardner**, **R. Deardon** & G. A. Darlington (2011) "Goodness-of-fit measures for individual-level infectious disease models in a Bayesian framework" in *Spatial & Spatio-temporal Epidemiology*, 2(4), 273 281. (Funded by: NSERC, OMAFRA).
- 12. **R. Deardon**, S. P. Brooks, B. T. Grenfell, M. J. Keeling, M. J. Tildesley, N. J. Savill, D. J. Shaw & M. E. J. Woolhouse (2010), "Inference for individual-level models of infectious diseases in large populations" in *Statistica Sinica*, 20(1), 239-261. (Funded by: Wellcome Trust, UK).
- 11. **B. Habibzadeh & R. Deardon** (2010), "The effect of misspecifying latent and infectious periods in space-time epidemic models" in *Statistical Communications in Infectious Diseases*, Vol. 2: Issue 1, Article 7. (Funded by: NSERC).
- 10. T. J. McKinley, A. Cook & **R. Deardon** (2009) "Inference in epidemic models without likelihoods" in *The International Journal of Biostatistics*, 5(1), Article 24. (Funded by: NSERC).
- 9. P.E. Caines, **R. Deardon** & H. P. Wynn (2009) "Bayes' nets of time series: stochastic realizations and projections" in *Optimal Experimental Design and Related Areas* (Ed: L Pronzato and A Zhigliavsky), 155-166, Springer.
- 8. A. J. Grant, M. Sheppard, R. Deardon, S. P. Brown, G. Foster, C. E. Bryant, D. J. Maskell & P. Mastroeni (2008) "Caspase 3-dependent phagocyte death during systemic Salmonella enterica serovar Typhimurium infection of mice" in *Immunology*, 125(1), 28-37.
- M. J. Tildesley, R. Deardon, N. J. Savill, P. Bessell, S. P Brooks, M. E. J. Woolhouse, B. T. Grenfell & M. J. Keeling (2008) "Accuracy of models for the 2001 foot-and-mouth disease epidemic" in *Proceedings of the Royal Society B*, 275(1641), 1459-1468. (Funded by: Wellcome Trust, UK).

6. N. J. Savill, D. J. Shaw, **R. Deardon**, M. J. Tildesley, M. J. Keeling, S. P. Brooks, M. E. J. Woolhouse & B. T. Grenfell (2007), "Effect of data quality on estimates of farm infectiousness trends in the UK 2001 foot-and-mouth disease epidemic" in *Journal of the Royal Society Interface*, 4, 235-241. (Funded by: Wellcome Trust, UK).

- 5. **R. Deardon**, S. G. Gilmour, N. A. Butler, K. Phelps & R. Kennedy (2006), "Designing field experiments which are subject to representation bias" in *Journal of Applied Statistics*, 33, 7, 665-680. (Funded by: EPSRC, UK).
- 4. M. J. Tildesley, N. J. Savill, D. J. Shaw, **R. Deardon**, S. P. Brooks, M. E. J. Woolhouse, B. T. Grenfell & M. J. Keeling (2006), "Optimal reactive vaccination strategies for an outbreak of foot-and-mouth disease in Great Britain" in *Nature*, 440, 1080, 83-86. (Funded by: Wellcome Trust, UK).
- 3. N. J. Savill, D. J. Shaw, **R. Deardon**, M. J. Tildesley, M. J. Keeling, S. P. Brooks, M. E. J. Woolhouse & B. T. Grenfell (2006), "Topographic determinants of foot and mouth disease transmission in the UK 2001 epidemic" in *BMC Veterinary Research*, Vol. 2:3. (Funded by: Wellcome Trust, UK).
- 2. **R. Deardon**, S. G. Gilmour, N. A. Butler, K. Phelps & R. Kennedy (2004), "A method for ascertaining and controlling representation bias in field trials for airborne plant pathogens" in the *Journal of Applied Statistics*, 31, 3, 2004, 329-343.
- 1. P.E. Caines, **R. Deardon** & H. P. Wynn (2002) "Conditional Orthogonality and Conditional Stochastic Realization" in *New Directions in Mathematical Systems Theory and Optimization*, Springer.

Conference Proceedings

- A. Ogilvy, S. Collins, W. Hare, M. Hilts, T. Tuokko, **R. Deardon** & A. Jirasek. "Optimization of solid tank design for fan-beam optical CT based 3D radiation dosimetry." Submitted to the International Conference on 3D and Advanced Dosimetry (IC3DDose), Quebec City, Canada.
- M. Aghajanpoorpasha & R. Deardon (2019) "On Minimum Cost Non-Uniform Sampling Schemes for Optimal Design of Control Charts: Application to \overline{X} and T^2 Control Charts" Fourth North American International Conference on Industrial Engineering and Operations Management (IEOM).
- P.E. Caines, **R. Deardon** & H. P. Wynn (2002) "Conditional independence and general factorisations in times series graphical models" in the 2002 Proceedings of the American Statistical Association, Physical and Engineering Sciences Section [CD-ROM], Alexandria, VA: American Statistical Association.

Published Letters

- M. J. Keeling, M. J. Tildesley, N. J. Savill, M. E. J. Woolhouse, D. J. Shaw, **R. Deardon**, S. P. Brooks, & B. T. Grenfell (2007), "Veterinary epidemiology: Vaccination strategies for foot-and-mouth disease" (reply to Brief Communication Arising by Kitching et al.) in *Nature*, 445, E12-E13, 8 February 2007.
- M. J. Keeling, M. J. Tildesley, N. J. Savill, M. E. J. Woolhouse, D. J. Shaw, **R. Deardon**, S. P. Brooks, & B. T. Grenfell (2006), response to letter, "FMD control strategies" by Wingfield, Miller & Honhold in *The Veterinary Record*, May 20, 2006. (Funded by: Wellcome Trust, UK).

Technical & Other Reports

- M. Lewis, P. Brown, C. Colijn, L. Cowen, C. Cotton, T. Day, R. Deardon, D. Earn, D. Haskell, J. Heffernan, P. Leighton, K. Murty, S. Otto, E. Rafferty, C. Hughes Tuohy, J. Wu & H. Zhu (2023) "Charting a future for emerging infectious disease modelling in Canada." http://hdl.handle.net/1828/15042
- R. Deardon & S. P. Brooks (2007) "Bayesian modelling of the spatio-temporal dynamics of large-scale epidemics," technical report, *Statistical Series* #2007-312, Department of Mathematics & Statistics, University of Guelph.
- P.E. Caines, R. Deardon & H. P. Wynn (2007) "Algebraic Methods for Conditional Independence in Time Series Graphical Models," technical report, *Statistical Series* #2007-313, Department of Mathematics & Statistics, University of Guelph.

Software

- C. Ward, R. Deardon & A. Schmidt (2023) "epidemicBCM: Bayesian modelling of dynamic behavioural change during an epidemic"
 - Github Repository (R Nimble): https://github.com/ceward18/epidemicBCM
- W. Almutiry, V. Warriyar & R. Deardon (2019) EpiILMCT: Continuous Time Individual-Level Models of Infectious Disease.
 - CRAN Webpage: https://cran.r-project.org/web/packages/EpiILMCT/index.html
 - Github Repository: https://waleedalmutiry.github.io/EpiILMCT/
- J. Angevaare, R. Deardon, Z. Feng (2017) PhyloTrees.jl: Phylogenetic trees in Julia.

- Github repository (Julia): https://github.com/jangevaare/PhyloTrees.jl
- J. Angevaare, R. Deardon, Z. Feng (2017) SubstitutionModels.jl: Biological Sequence Substitution Models for Julia.
 - Github repository (Julia). https://github.com/BioJulia/SubstitutionModels.jl
- V. Warriyar & R. Deardon (2017) EpiILM: Spatial and Network Based Individual Level Models for Epidemics (R Package).
 - CRAN Webpage: https://CRAN.R-project.org/package=EpiILM
- *J. Angevaare*, R. Deardon, Z. Feng (2016) Pathogen.jl: Simulation and inference tools for phylodynamic individual level models.
 - Github repository (Julia): https://github.com/jangevaa/Pathogen.jl
- *J. Angevaare*, R. Deardon, Z. Feng (2014) ilmtools: Tools for simulating and performing inference of individual level infectious disease transmission models.
 - Github repository (Julia): https://github.com/jangevaa/ilmtools

Theses

- R. Deardon (2001) "Representation Bias in Field Trials for Airborne Plant Pathogens" Ph.D. Thesis, School of Applied Statistics, University of Reading, UK.
- R. Deardon (1997) "Multiple Testing: An Investigation of the Power Properties of Members of a Family of Closed Test (including Hommel's Test)" M.Sc. Thesis, Department of Mathematics, University of Southampton, UK.