

## CURRICULUM VITAE

Peter J. Diggle

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**Born:** 24.2.50, Lancashire, England.

**Nationality:** Australian and British

**Home address:** 5 Meadowside, Lancaster LA1 3AQ, UK

### Academic qualifications

1972: B.Sc. (Liverpool) with First Class Honours in Computational and Statistical Science.

1973: M.Sc. (Oxford) by thesis, "Contagion and Allied Processes".

1977: Ph.D. (Newcastle-upon-Tyne) by thesis, "Spatial Processes with Applications in Ecology".

### Current posts

#### Substantive

Distinguished University Professor, Lancaster University, since January 2007 (part-time since October 2015)

#### Honorary

Adjunct Professor of Biostatistics, Johns Hopkins University School of Public Health, since July 1993; Adjunct Senior Researcher, Columbia University International Research Institute for Climate and Society, since January 2010; Adjunct Professor, Yale University School of Public Health, since August 2012

### Previous posts

**University of Newcastle-upon-Tyne** Lecturer in Statistics, January 1974 to December 1983; Reader in Statistics, January 1984 to December 1984

**CSIRO Division of Mathematics and Statistics** Senior Research Scientist, January 1985 to June 1986; Principal Research Scientist, July 1986 to June 1987; Chief Research Scientist and Chief of Division, July 1987 to June 1988.

**University of Liverpool** Professor, Department of Epidemiology and Population Health (part-time), December 2011 to September 2015.

### Academic Leadership at Lancaster University

Professor of Statistics, 1988–2007; Founder and Director of Medical Statistics Unit, 1995 to 2001; University Dean for Research, 1998 to 2001; EPSRC Senior Fellow, 2004 to 2008; Associate Dean for Research, School of Health and Medicine, 2007–2011; Founding leader of CHICAS Research Group 2007–2017; Distinguished University Professor since 2007

### Other professional activities

**Royal Statistical Society.** Fellow since 1974. Honorary Secretary, North Eastern Local Group, 1977–1979. Chairman, North Eastern Local Group, 1980–1982. Member of Research Section Committee, 1980–1987. Member of Council 1983–1985. Joint Editor of JRSSB, 1984–1987. Honorary Secretary, 1990–1996. Awarded the Guy Medal in Silver, 1997. Associate Editor of Applied Statistics, 1998–2000. Chair of Research Section Committee, 1998–2000. President, 2014–2016.

**Biometric Society** Member since 1978. Joint organiser of one day meeting “Biometric Aspects of Spatial Processes” October 1978. Joint organiser of residential workshop “Spatial Analysis in Ecology” September 1982 (for Mathematical Ecology Study Group). Session organiser, 12th International Biometrics Conference IBC, Tokyo, 1984; Session organiser, 16th IBC, Hamilton, 1990. Associate Editor of *Biometrics*, 1984-1989. Invited speaker, 24th IBC, Cairns, 2006. Invited speaker, 25th IBC, Dublin, 2008. Session organiser, 26th IBC, Florianopolis, 2010. Invited speaker, 28th IBC, Florence, 2014

**American Statistical Association** Elected Fellow, 2001

**Biometrika** Associate Editor, 1991-1992. Member, Board of Trustees, since 1993.

**International Statistical Institute** Invited speaker, 43rd ISI Session, Buenos Aires, 1983. Elected Ordinary Member, 1985. Invited Speaker, 1st World Congress of Bernoulli Society, Tashkent, 1986. Invited Speaker, 46th ISI Session, Tokyo, 1987. Member of Council of the Bernoulli Society from September 1987. Member of Program Committee, 48th ISI Session, Cairo, 1991. Organiser of meeting, “Epidemiological studies of industrial pollutants”, at 48th ISI Session, Cairo, 1991. Member of Programme Committee, 50th ISI Session, Beijing, 1995. Invited speaker, 56th ISI Session, Lisbon, 2007. Invited speaker, 58th ISI Session, Dublin, 2011

**Bernoulli Society** Member, 1981-2004. Member of Council, 1987-1991. Programme Coordinator, European Regional Committee, 1994-1996. Invited speaker, Bernoulli World Congress, Tashkent, 1986. Invited speaker, European Meeting of Statisticians, Barcelona, 1991. Invited plenary speaker, Bernoulli World Congress, Istanbul, 2011.

**Biostatistics** Founding co-editor, 1999-2009; Member of Advisory Board, since 2010

**Committee of Professors of Statistics.** Member since 1988. Chair 2004-2006.

**Medical Research Council** Member of Public Health and Health Services Research Board, 2007-2008. Member of Population and Systems Medicine Research Board, 2008-2011. Chair of Strategic Skills Fellowships Schemes Panel, 2012-2016 Member of Training and Careers Group, 2012-2016 Member of Population Health Sciences Group, 2014-2016

**Wellcome Trust** Member of Sustaining Health Committee, 2013-2017

**Statistical Science** Associate Editor, 2014-2016

**University of Zurich**, Institute for Epidemiology, Biostatistics and Prevention. Member of Scientific Advisory Board, from 2014.

**University of Wollongong**, Illawara Health and Medical Research Institute. Member of Scientific Advisory Committee, 2013-2015

**Fisher Memorial Trust** Trustee, from 2015

## Teaching experience

I have developed and taught a wide range of courses in a university context, including undergraduate and postgraduate degree courses in probability and statistics, a limited amount of mathematics teaching, and statistics service teaching aimed at particular client groups.

I have developed and taught short courses for CPD programmes in the UK and overseas, in topic areas related to my research interests in spatial point processes, geostatistics, time series and longitudinal data.

I taught on the UK’s EPSRC-funded national Academy for PhD Training in Statistics from its

inception in 2008 until 2014.

I was instrumental in the formation of a partnership agreement between the Royal Statistical Society and the African Institute for Mathematical Sciences (AIMS), and have taught at AIMS Tanzania.

I have co-authored text-books in statistics and in pure mathematics.

## **Research Interests**

My main areas of methodological research interest concern spatial statistics and longitudinal data analysis, especially as applied in the biomedical, health and environmental sciences. I have also worked in time series, Monte Carlo inference and non-parametric smoothing.

My main substantive research interests are in environmental epidemiology, tropical disease epidemiology, real-time health surveillance, and statistical modelling for e-health applications.

## **Named lectures**

1986. H.O. Hartley Lecture, Texas A&M University, USA

2015. John Stuart Hunter Lecture, United Arab Emirates University, UAE

2017. David Sprott Lecture, University of Waterloo, Canada

2017. Laplace Fellow and Lecture, Durham University, UK

2018. Colin White Lecture, Yale University, USA

2018. Francqui Chair, Universities of Hasselt and Leuven, Belgium

2018. Royal Statistical Society Vic Barnett Lecture, Cardiff, UK

## **Research student supervision**

### **Newcastle upon Tyne**

Richard Gratton, Hana Ameen, David Coates, Ann-Lee Wang (PhD)

Arthur Pewsey (MPhil)

### **Lancaster**

Ibrahim Al Wasel, Julia Kelsall, Helen Wilson, Sara Morris, Louise Harper, Jon Barry, Jan Currie, Paulo Ribeiro, Patrick Brown, David Smith, Ting-Li Su, Ines Sousa, Irene Kaimi, Gerwyn Green, John Speakman, Tom Fanshawe, Annette Dobson, Susan Gooding, Alexandre Rodrigues, Michelle Stanton, Lisha Deng, Lydiane Agier, Nicola Reeve, Ozgur Asar, Emanuele Giorgi, Irene Larbi, Justice Aheto, Kamarul Musa, Rhiannon Edge, Michael Chipeta (PhD)

Ann-Marie Jones (MPhil)

Alex Oldroyd, Katy Mitchell, Alexandria Walton (MSc)

James Chirombo, Benjamin Amoah, Olatunji Johnson, Irene Kyomuhangi, Poppy Miller, Jillian Gauld (current)

### **Lancaster visiting**

Isabel Nataro (Lisbon), Victoria Ibanez (Valencia), Angela D'Elia (Florence), Jorg Mateu (Castellon), Turid Follestad (Oslo), Andrei Tscheschel (Freiberg), Ole Christensen (Aalborg), Soren Lophaven (Copenhagen), Marina Paez (Rio de Janeiro), Raquel Menezes (Santiago de Compostela), Dora Kocmanova (Leuven), Virgilio Gomez (Valencia), Massimiliano Copetti

(Rome), Rosa Abelana (Barcelona), Rebeca Ramis (Madrid), Diego Giuliani (Rome), Audrey Dugué (Bordeaux), Nicolas Capián (Paris), Ibon Tamayo (Bilbao), Monica Hernandez (Mexico City), Marcelo Da Cunha (Rio De Janeiro), Katherine Grell (Copenhagen), Vanessa Sehaba (Parana State), Claudio Fronterre (Padua), Dileepa Ediriweera (Sri LANKA)

### **Liverpool**

David Taylor-Robinson, Dan Wootton, Amanda Minter (PhD)  
Gabriel Pedra (current)

### **Yale**

Katie Owers, Kate Hacker (PhD)

## **Publications**

### **Books**

1. DIGGLE, P.J. (1983). *Statistical Analysis of Spatial Point Patterns*. London: Academic press.
2. DIGGLE, P.J. (1990). *Time Series: a biostatistical introduction*. Oxford: Oxford University Press.
3. DIGGLE, P.J., LIANG, K.Y. and ZEGER, S.L. (1994). *Analysis of Longitudinal Data*. Oxford: Oxford University Press.
4. CHETWYND, A. and DIGGLE, P (1995). *Discrete Mathematics*. London: Edward Arnold.
5. GREGOIRE, T.G., BRILLINGER, D.R., DIGGLE, P.J., RUSSEK-COHEN, E, WARNER, W.G. and WOLFINGER, R.D. (eds) (1997). *Modeling Longitudinal and Spatially Correlated Data*. New York: Springer-Verlag.
6. DIGGLE, P.J. (2003). *Statistical Analysis of Spatial Point Patterns (second edition)*. London : Edward Arnold.
7. Diggle, P.J., Heagerty, P., Liang, K.Y. and Zeger, S.L. (2002). *Analysis of Longitudinal Data (second edition)*. Oxford: Oxford University Press.
8. Diggle, P.J. and Ribeiro, P.J. (2007). *Model-based Geostatistics*. New York : Springer.
9. Gelfand, A., Diggle, P.J., Fuentes, M. And Guttorp, P. (2010). *Handbook of Spatial Statistics*. Boca Raton: CRC Press.
10. Diggle, P.J. and Chetwynd, A.G. (2011). *Statistics and Scientific Method: an Introduction for Students and Researchers*. Oxford: Oxford University Press.
11. DIGGLE, P.J. (2013). *Statistical Analysis of Spatial and Spatio-Temporal Point Patterns (3rd edition)* Boca Raton: CRC Press

### **Refereed journal articles: published**

1. DIGGLE, P.J. (1975). Robust density estimation using distance methods. *Biometrika*, **62**, 39-48.

2. DIGGLE, P.J. (1976). A spatial stochastic model of inter-plant competition. *J. Appl. Prob.*, **13**, 662-71.
3. DIGGLE, P.J., BESAG, J. and GLEAVES, J.T. (1976). Statistical analysis of spatial point patterns by means of distance methods. *Biometrics*, **32**, 659-67.
4. DIGGLE, P.J. (1977). A note on robust density estimation for spatial point patterns. *Biometrika*, **64**, 91-5.
5. DIGGLE, P.J. (1977). The detection of random heterogeneity in plant populations. *Biometrics*, **33**, 390-4.
6. BESAG, J. and DIGGLE, P.J. (1977). Simple Monte Carlo tests for spatial pattern. *Appl. Statist.*, **26**, 327-33.
7. AHERNE, W.A. and DIGGLE, P.J. (1978). The estimation of neuronal population density by a robust distance method. *J. Micr.*, **114**, 285-93.
8. DIGGLE, P.J. (1978). On parameter estimation for spatial point processes. *J. R. Statist. Soc. B*, **40**, 178-81.
9. DIGGLE, P.J. (1979). On parameter estimation and goodness-of-fit testing for spatial point patterns. *Biometrics*, **35**, 87-101.
10. DIGGLE, P.J. and KNUTELL, H. (1980). Estimating the width of a forest strip-road. *Scand. J. Statist.*, **7**, 85-9.
11. DIGGLE, P.J. and MATERN, B. (1980). On sampling designs for the study of nearest neighbour distributions in  $R^2$ . *Scand. J. Statist.*, **7**, 80-4.
12. DIGGLE, P.J. (1981). Statistical analysis of spatial point patterns. *N Z Statistician*, **16**, 22-41.
13. DIGGLE, P.J. (1981). Binary mosaics and the spatial pattern of heather. *Biometrics*, **37**, 531-9.
14. FORD, E.D. and DIGGLE, P.J. (1981). Competition for light in a plant monoculture modelled as a spatial stochastic process. *Ann. Bot.*, **48**, 481-500.
15. DIGGLE, P.J. (1982). Some statistical aspects of spatial distribution models for plants and trees. *Studia Forestalia Suecica*, **162**, 47pp.
16. GILL, G.V., BAYLIS, P.H., FLEAR, C.T.G., SKILLEN, A.W. and DIGGLE, P.J. (1982). Acute biochemical responses to moderate beer drinking. *Brit. Med. J.*, **285**, 1770-3.
17. DIGGLE P.J. and COX, T.F. (1983). Some distance-based tests of independence for sparsely-sampled multivariate spatial point patterns. *Int. Statist. Rev.*, **51**, 11-23.
18. DIGGLE, P.J. and MILNE, R.K. (1983). Bivariate Cox processes: some models for bivariate spatial point patterns. *J. R. Statist. Soc. B*, **45**, 11-21.
19. DIGGLE, P.J. and MILNE, R.K. (1983). Negative binomial quadrat counts and point processes. *Scand. J. Statist.*, **10**, 257-67.

20. DIGGLE, P.J. and GRATTON, R.J. (1984). Monte Carlo methods of inference for implicit statistical models (with discussion). *J. R. Statist. Soc. B*, **46**, 193-227.
21. DIGGLE, P.J. (1985). A kernel method for smoothing point process data. *Appl. Statist.*, **34**, 138-47.
22. DIGGLE, P.J. and FISHER, N.I. (1985). SPHERE: a contouring program for spherical data. *Computers and Geosciences*, **11**, 725-66.
23. DIGGLE, P.J., FISHER, N.I. and LEE, A.J. (1985). A comparison of tests of uniformity for spherical data. *Austral. J. Statist.*, **27**, 53-9.
24. HENZELL, R.F., PHILLIPS, J.N. and DIGGLE, P.J. (1985). Influence of subtoxic concentrations of herbicides and growth regulators on the viability of *Arabidopsis thaliana* progeny. *Weed Sci.*, **33**, 430-4.
25. MURDOCH, A.P., DIGGLE, P.J., DUNLOP, W. and KENDALL-TAYLOR, P. (1985). Determination of the frequency of pulsatile luteinising hormone secretion by time series analysis. *Clin. Endocrin.*, **22**, 341-6.
26. COATES, D.S. and DIGGLE, P.J. (1986). Tests for comparing two estimated spectral densities. *J. Time Series Anal.*, **7**, 7-20.
27. DIGGLE, P.J. and HALL, P. (1986). On the selection of terms in an orthogonal series density estimator. *J. Amer. Statist. Assn.*, **81**, 230-3.
28. DIGGLE, P.J. (1986). Displaced amacrine cells of a rabbit : analysis of a bivariate spatial point pattern. *J. Neurosci. Meth.*, **18**, 115-25.
29. SPAIN, A.V., SINCLAIR, D.F. and DIGGLE, P.J. (1986). Spatial distributions of the mounds of harvester and forager termites (Isoptera: Termitidae) at four locations in tropical North-Eastern Australia. *Acta Oecologica Oecol. Gener.*, **7**, 335-52.
30. BYRNE, G.F., DUNIN, F.X. AND DIGGLE, P.J. (1987). Forest evaporation and meteorological data : a test of a complementary theory advection-aridity approach. *Water Resources Research*, **24**, 30-4.
31. DIGGLE, P.J., GATES, D.J. and STIBBARD, A. (1987). A non-parametric estimator for pairwise-interaction point processes. *Biometrika*, **74**, 763-70.
32. DIGGLE, P.J. (1988). An approach to the analysis of repeated measurements. *Biometrics*, **44**, 959-71.
33. DIGGLE, P.J. and MARRON, J.S. (1988). Equivalence of smoothing parameter selectors in density and intensity estimation. *J. Amer. Statist. Assn.*, **83**, 793-800.
34. BERMAN, M. and DIGGLE, P.J. (1989). Estimating weighted integrals of the second-order intensity of a spatial point process. *J. R. Statist. Soc. B*, **51**, 81-92.
35. DIGGLE, P.J. (1989). Testing for random drop-outs in repeated measurements. *Biometrics*, **45**, 1255-8.
36. DIGGLE, P.J. and DONNELLY, J.B. (1989). The analysis of repeated measurements : a bibliography. *Austral. J. Statist.*, **31**, 183-93.

37. DIGGLE, P. J. and HUTCHINSON. M. F. (1989). On spline smoothing with autocorrelated errors. *Austral. J. Statist*, **31**, 194-9.
38. DIGGLE, P.J. and ZEGER, S.L. (1989). A non-Gaussian model for time-series with pulses. *J. Amer. Statist. Assn.*, **84**, 354-9.
39. MURDOCH, A.P., DIGGLE, P.J., WHITE, M.C, KENDALL-TAYLOR, P. and DUNLOP. W.( 1989 a). Luteinizing hormone in women is secreted in superimposed pulse patterns. *Clin. Sci.*, **76**, 125-35.
40. MURDOCH, A.P., DIGGLE, P.J., WHITE, M.C., KENDALL-TAYLOR, P. and DUNLOP. W. (1989b). Luteinising hormone in polycystic ovary syndrome: reproducibility and pulsatile secretion. *J. Endocrinology*, **121**, 185-91.
41. NOBLE, J.C.. DIGGLE, P.J. and WHITFORD, W.G. (1989). The spatial distribution of termite pavements and hummock feeding sites in a semi-arid woodland in eastern Australia. *Oecologia Generalis*, **10**, 355-76.
42. ZEGER, S.L., SEE, L.C. and DIGGLE, P.J. (1989). Statistical methods for monitoring the AIDS epidemic. *Statistics in Medicine*, **8**, 3-21.
43. BJAALIE, J.G. and DIGGLE, P.J. (1990). Statistical analysis of corticopontine neuron distribution in visual areas 17, 18 and 19 of the cat. *J. Compar. Neurol.*, **295**, 15-32.
44. DIGGLE P.J. (1990). A point process modelling approach to raised incidence of a rare phenomenon in the vicinity of a pre-specified point. *J. R. Statist. Soc. A.*, **153**, 349-62.
45. MURDOCH, A.P., DIGGLE, P.J., WHITE, M.C., KENDALL-TAYLOR, P. and DUNLOP, W. (1990). Rapid pulses of luteinsing hormone during the ovarian cycle. *Br. J. Obstetrics and Gynaecology*, **97**, 329-33.
46. BJAALIE, J.G., DIGGLE, P.J., NIKUNDIWE, A., KARAGULLE, T. and BRODAL. P. (1992). Spatial segregation between populations of ponto-cerebellar neurons: statistical analysis of multivariate spatial interactions. *Anat. Rec.*, **231**, 510-23.
47. DIGGLE, P.J. and CHETWYND, A.G. (1991). Second-order analysis of spatial clustering for inhomogenous populations. *Biometrics*, **47**, 1155-63.
48. DIGGLE, P.J. and FISHER, N.I. (1991). Nonparametric comparison of cumulative periodograms. *Appl. Statist.*, **40**, 423-34.
49. DIGGLE, P.J., LANGE, N. and BENES, F.M. (1991). Analysis of variance for replicated spatial point patterns in clinical neuroanatomy. *J. Amer. Statist. Assn.*, **86**, 618-25.
50. BHOPAL, R.S. , DIGGLE, P.J. and ROWLINGSON, B.S. (1992). Pinpointing clusters of apparently sporadic cases of legionnaires' disease. *Brit. Med. J.*, **304**, 1022-7.
51. DIGGLE, P.J. and HALL, P. (1993). Fourier approach to nonparametric deconvolution of a density estimate. *J. R. Statist. Soc. B*, **55**, 523-31.
52. DIGGLE, P.J. and RICHARDSON, S. (1993). Epidemiological studies of industrial pollutants: an introduction. *Int. Statist Rev.*, **61**, 203-6.

53. ROWLINGSON, B.S. and DIGGLE, P.J. (1993). SPLANCS: Spatial point pattern analysis code in S-plus. *Computers in Geosciences*, **19**, 627-55.
54. ZEGER, S.L., CAREY, V. and DIGGLE, P.J. (1993). Modelling multivariate binary data with alternating logistic regressions. *Biometrika*, **80**, 517-26.
55. MOYEED, R.A. and DIGGLE, P.J. (1994). Rates of convergence in semi-parametric modelling of longitudinal data. *Austral. J. Statist.*, **36**, 75-93
56. ZEGER, S.L. and DIGGLE, P.J. (1994). Semi-parametric models for longitudinal data with application to CD4 cell numbers in HIV seroconverters. *Biometrics*, **50**, 689-99.
57. AZZALINI, A. and DIGGLE, P. (1994). Prediction of soil respiration rates from temperature moisture and soil type. *Appl. Statist.*, **43**, 505-26.
58. DIGGLE, P.J. and KENWARD, M.G. (1994). Informative dropout in longitudinal data analysis (with Discussion). *Appl. Statist.*, **43**, 49-93.
59. DIGGLE, P.J. and ROWLINGSON, B.S. (1994). A conditional approach to point process modelling of raised incidence. *J. R. Statist. Soc. A.*, **157**, 433-40.
60. DIGGLE, P.J., FIKSEL, T., GRABARNIK, P., OGATA, Y., STOYAN, D. and TANEMURA, M. (1994). A comparative study of methods of parameter estimation for pairwise-interaction point processes. *Int. Statist Rev.*, **62**, 99-117.
61. BARRY, J.T. and DIGGLE, P.J. (1995). Choosing the smoothing parameter in a Fourier approach to nonparametric deconvolution of a density estimate. *J. Nonparametric Statist.*, **5**, 224-32.
62. KELSALL, J. and DIGGLE, P.J. (1995). Kernel estimation of relative risk. *Bernoulli*, **1**, 3-16.
63. DIGGLE P.J., CHETWYND, A.G., HAGGKVIST, R. and MORRIS, S. (1995). Second-order analysis of space-time clustering. *Statist. Meth. Med Res.*, **4**, 124-36.
64. KELSALL, J. and DIGGLE, P.J. (1995). Nonparametric estimation of spatial variation in relative risk. *Statistics in Medicine*, **14**, 2335-42.
65. DIGGLE, P. and ELLIOTT, P. (1995). Disease risk near point sources: statistical issues for analyses using individual or spatially aggregated data. *J. Epidemiology and Community Health*, **49**, S20-27.
66. WOLFENDEN, J. and DIGGLE, P.J. (1995). Canopy gas exchange and growth of upland pasture swards in elevated  $CO_2$ . *New Phytologist*, **130**, 369-80.
67. GATRELL, A.C., BAILEY, T.C., DIGGLE, P.J. and ROWLINGSON, B.S. (1996). Spatial point pattern analysis and its application in geographical epidemiology. *Transactions of the Institute of British Geographers*, **NS21**, 256-74.
68. DIGGLE, P.J. and AL WASEL, I. (1997) Spectral analysis of replicated biomedical time series (with Discussion). *Applied Statistics*, **46**, 31-71.
69. DIGGLE, P., ELLIOTT, P., MORRIS, S. and SHADDICK, G. (1997). Regression modelling of disease risk in relation to point sources. *J. R. Statist. Soc. A*, **160**, 491-505.



70. LUCAS, P.W. and DIGGLE, P.J. (1997). The use of longitudinal data analysis to study the multi-seasonal growth responses of Norway and sitka spruce to summer exposure to ozone: implications for the determination of critical levels. *New Phytologist*, **137**, 315-23.
71. STANLEY, K.N., WALLACE J.S., CURRIE, J.E, DIGGLE, P.J. and JONES, K. (1997). The seasonality of thermophilic Campylobacter populations in chickens. *Journal of Applied Bacteriology*, **82**, 219-24.
72. STANLEY, K.N., WALLACE, J.S, CURRIE, J.E, DIGGLE, P.J. and JONES, K. (1998). Seasonality of thermophilic campylobacters in lambs at slaughter. *Journal of Applied Microbiology*, **84**, 1111-6.
73. CHETWYND, A.G. and DIGGLE, P.J. (1998). On estimating the reduced second moment measure of a stationary spatial point process. *Australian and New Zealand Journal of Statistics*, **40**, 11-15.
74. CHETWYND, A.G., DIGGLE, P.J., DREWETT, R. and YOUNG, B. (1998). A mixture model for sucking patterns of breast-fed infants. *Statistics in Medicine*, **17**, 395-405.
75. DIGGLE, P.J., MOYEED, R.A. and TAWN, J.A. (1998). Model-based geostatistics (with Discussion). *Applied Statistics*, **47**, 299-350.
76. DIGGLE P. and VERBYLA, A. (1998). Nonparametric estimation of covariance structure in longitudinal data. *Biometrics*, **54**, 401-15.
77. KELSALL, J.E. and DIGGLE, P.J. (1998). Spatial variation in risk: a nonparametric binary regression approach. *Applied Statistics*, **47**, 559-73. (Corrigendum, **51**, 373.)
78. STANLEY, K.N., WALLACE, J.S., CURRIE, J.E, DIGGLE P.J. and JONES, K. (1998). The seasonal variation of thermophilic campylobacters in beef cattle, dairy cattle and calves. *Journal of Applied Microbiology*, **85**, 472-80.
79. MOLENBERGHS, G., MICHIELS, B., KENWARD, M.G. and DIGGLE, P. J. (1998). Monotone missing data and pattern-mixture models. *Statistica Neerlandica*, **52**, 153-61.
80. DIGGLE, P.J., MORRIS, S. and MORTON-JONES, A.J. (1999). Case-control isotonic regression for investigation of elevation in risk around a point source. *Statistics in Medicine*, **18**, 189-97.
81. MORTON-JONES, A.J, DIGGLE. P.J. and ELLIOTT, P. (1999). Investigation of excess environmental risk around putative sources: Stone's test with covariate adjustment. *Statistics in Medicine*, **18**, 189-197.
82. SMITH, D.M. and DIGGLE, P.J. (1999). Compliance in an anti-hypertension trial: a latent process model for binary longitudinal data. *Statistics in Medicine*, **18**, 357-70.
83. GILL.M.S., THALANGE, N.K.S., DIGGLE, P.J. and CLAYTON, P.E. (1999). Rhythms in urinary growth hormone, insulin-like growth factors-I (IGF-I) and IGF binding protein-3 excretion in children of normal stature. In *Saltation and Stasis in Human growth and development: evidence, methods and theory*, ed. M.Lampl, 59-70. London : Smith-Gordon.
84. GILL. M.S., THALANGE, N.K.S, FOSTER, P.J, TILLMANN, V., PRICE D.A., DIGGLE P.J. and CLAYTON, P.E. (1999). Regular fluctuations in growth hormone (GH) release determine normal human growth. *Growth Hormone and IGF Research*, **9**, 114-22.

85. THOMSON, M.C., CONNOR, S.J., D'ALESSANDRO, U., ROWLINGSON, B., DIGGLE, P.J. and CRESSWELL, M. (1999). Predicting malaria infection in Gambian children from satellite data and bed net use surveys: the importance of spatial correlation in the interpretation of results. *American Journal of Tropical Medicine and Hygiene*, **61**, 2–8.
86. DIGGLE, P.J., MORRIS, S.E. and WAKEFIELD, J.C. (2000). Point-source modelling using matched case control data. *Biostatistics*, **1**, 89–105.
87. Henderson R., Diggle, P. and Dobson, A. (2000). Joint modelling of longitudinal measurements and recurrent events. *Biostatistics*. **1**, 465–80.
88. MORTON-JONES, A.J., DIGGLE. P.J., PARKER L., DICKINSON, H.O. and BINKS, K. (2000). Additive isotonic regression models in epidemiology. *Statistics in Medicine*, **19**, 849–59.
89. DIGGLE, P.J., MATEU, J. and CLOUGH, H.E. (2000). A comparison between parametric and non-parametric approaches to the analysis of replicated spatial point patterns. *Advances in Applied Probability*, **32**, 331–43.
90. Brix, A. and Diggle, P.J. (2001). Spatio-temporal prediction for log-Gaussian Cox processes. *Journal of the Royal Statistical Society B* **63**, 823–41
91. BROWN, P.E., DIGGLE, P.J., LORD, M. and YOUNG PC, (2001). Space-time calibration of radar-rainfall data. *Applied Statistics*, **50**, 221–42.
92. CHETWYND, A.G, DIGGLE, P.J., MARSHALL, A. and PARSLOW, R. (2001). Investigation of spatial clustering from matched and stratified case-control studies. *Biostatistics* **2**, 277–93.
93. DUNN, C.E., KINGHAM, S., ROWLINGSON, B., BHOPAL, R.S., COCKINGS, S., FOY, C.J., ACQUILLA, S.D., HALPIN, J., DIGGLE, P. and WALKER, D. (2001). Analysing public health data: a comparison of three methodological approaches. *Health and Place* **7**, 1–12.
94. PRINCE, M., CHETWYND, A., DIGGLE, P., JARNER, M., METCALF, J. and JAMES, O (2001). The geographical distribution of primary biliary cirrhosis in a well-defined cohort. *Hepatology* **34**, 1083–8.
95. RABBITT, P.M., DIGGLE, P.J., SMITH, D.M., HOLLAND, F. AND McINNES, L. (2001). Identifying and separating the effects of practice and cognitive ageing during a large longitudinal study of elderly community residents. *Neuropsychologia*, **39**, 532–43.
96. DIGGLE, P., MOYEED, R., ROWLINGSON, B. and THOMSON, M. (2002). Childhood Malaria in the Gambia : a Case-study in Model-based Geostatistics. *Applied Statistics*, **51**, 493–506.
97. DIGGLE, P.J. and RIBEIRO, P.J. (2002). Bayesian inference in Gaussian model-based geostatistics. *Geographical and Environmental Modelling*, **6**, 129–46.
98. HENDERSON, R., DIGGLE, P. and DOBSON, A. (2002). Identification and efficacy of longitudinal markers for survival. *Biostatistics*, **3**, 33–50.

99. JARNER, M.F., DIGGLE, P.J. and CHETWYND, A.G. (2002). Estimation of spatial variation in risk using matched case-control data. *Biometrical Journal* **44**, 936–45.
100. PENDLETON, N., PAYTON, A., VAN DEN BOOGERD, E., HOLLAND, F., DIGGLE, P., RABBITT, P.M.A., HORAN, M.A., WORTHINGTON, J. and OLLIER, W.E.R. (2002). Apolipoprotein E genotype does not predict decline in intelligence in healthy older adults. *Neuroscience Letters*, **324**, 74–6.
101. FEYEN, L., RIBEIRO Jr, P.J., De SMEDT, F. and DIGGLE, P.J. (2002) Bayesian methodology to stochastic capture zone determination: conditioning on transmissivity measurements. *Water Resources research*, **38**, 1–11
102. BROWN, P., DIGGLE, P. and HENDERSON, R. (2003). A non-Gaussian spatial process model for opacity of flocculated paper. *Scandinavian Journal of Statistics*, **30**, 355–68.
103. Feyen L., Ribeiro Jr. P.J., De Smedt F., Diggle P.J. (2003). Stochastic delineation of capture zones: Classical versus Bayesian approach. *Journal of Hydrology*, **281**, 313–324.
104. PAYTON, A., HOLLAND, F., DIGGLE, P., RABBITT, P., HORAN, M., DAVIDSON, Y., GIBBONS, L., WORTHINGTON, J., OLLIER, W.E.R. and PENDLETON, N. (2003). Cathepsin D exon 2 polymorphism associated with general intelligence in a healthy older population. *Molecular Psychiatry*, **8**, 14–18.
105. RABBITT, P.M.A., McINNES, L., DIGGLE, P., HOLLAND, F., BENT, N., ABSON, V., PENDLETON, N. and HORAN, M. (2003). The University of Manchester longitudinal study of cognition in normal healthy old age, 1983 through 2003. *Aging, Neuropsychology and Cognition*, **11**, 245–79.
106. STEIN, E.A., STRUTT, K., SOUTHWORTH, H., DIGGLE, P.J. and MILLER, E. (2003). Comparison of rosuvastatin versus atorvastatin in patients with familial hypercholesterolemia. *Cardiology* **92**, 1287–93.
107. BROWN, P.E., CHRISTENSEN, O.F., CLOUGH, H.E., DIGGLE, P.J., HART, C.A., HAZEL, S., KEMP, R., LEATHERBARROW, A.J.H., MOORE, A., SUTHERST, J., TURNER, J., WILLIAMS, N.J., WRIGHT, E.J. and FRENCH, N.P. (2004). The frequency and spatial distribution of environmental *campylobacter spp.* isolated from systematic sampling of a large area of recreation and dairy farmland. *Applied Environmental Microbiology*, **70**, 6501–11.
108. BROWN, P., DIGGLE, P. and HENDERSON, R. (2004). A model-based approach to quality control of paper production. *Applied Stochastic Models in Business and Industry*, **20**, 173–84.
109. CHRISTENSEN, O.F., CASSIANI, G., DIGGLE, P.J., RIBEIRO, P.J. and ANDREOTTI, G. (2004). Statistical estimation of the relative efficiency of natural attenuation mechanisms in contaminated aquifers. *Stochastic Environmental Research and Risk Assessment*, **18**, 339–50.
110. Leatherbarrow, A.J.H., Hart, C.A., Kemp, R., Williams, N.J., Ridley, A., Sharma, M., Diggle, P.J., Wright, E.J., Sutherst, J. and French, N.P. (2004). Genotypic and Antibiotic Susceptibility Characteristics of a *Campylobacter coli* Population Isolated from Dairy Farmland in the United Kingdom. *Applied and Environmental Microbiology*, **70**, 822–830.

111. RABBITT, P., DIGGLE, P., HOLLAND, F. and MCINNES, L. (2004). Practice and dropout effects during a 17 year longitudinal study of cognitive ageing. *Journal of Gerontology B*, **59**, 84-97.
112. SCHLATHER, M.S., RIBEIRO, P.J. and DIGGLE, P.J. (2004). Detecting dependence between marks and locations of marked point processes. *Journal of the Royal Statistical Society, B* **66**, 79–93.
113. DIGGLE, P.J., ROWLINGSON, B. and SU, T-L. (2005). Point process methodology for on-line spatio-temporal disease surveillance. *Environmetrics*, **16**, 423–34.
114. DIGGLE, P.J., ZHENG, P. and DURR, P. (2005). Non-parametric estimation of spatial segregation in a multivariate point process. *Applied Statistics*, **54**, 645–58.
115. EGLIN, S.J., DIGGLE, P.J. and TROY, J.B. (2005). Homotypic constraints dominate positioning of on- and off-center beta retinal ganglion cells. *Visual Neuroscience*, **22**, 859-871.
116. FRENCH, N.P., McCARTHY, H.E., DIGGLE, P.J. and PROUDMAN, C.J. (2005). Clustering of equine grass sickness cases in the UK: a study considering the effect of position-dependent reporting on the space-time K-function. *Epidemiology and Infection*, **133**, 343–348.
117. MALIK, M.H., HARWOOD, P., DIGGLE, P. and KHAN, S.A. (2005). Factors affecting rates of infection and nonunion in intermedullary nailing. *Journal of Bone and Joint Surgery*, **86**, 556-560.
118. SOUSA, I., CHETWYND, A.G. and DIGGLE, P.J. (2005). Exploratory analysis of longitudinal trials with staggered intervention times. *Biostatistics*, **6**, 479–85.
119. DIGGLE, P.J. and LOPHAVEN, S. (2006). Bayesian geostatistical design. *Scandinavian Journal of Statistics*, **33**, 55–64.
120. DIGGLE, P.J. (2006). Spatio-temporal point processes, partial likelihood, foot-and-mouth. *Statistical Methods in Medical Research*, **15**, 325–336.
121. KELLY-HOPE, L., DIGGLE, P., ROWLINGSON, B., GYAPONG, J.O., KYELEM, D., THOMSON, M., OBSOMER, V., LINDSAY, S., COLEMAN, M., HEMINGWAY, J. and MOLYNEUX, D. (2006). Negative spatial association between lymphatic filariasis and malaria in Africa. *Tropical Medicine and International Health*, **11**, 129–135.
122. LIM, E., ALI, A., CARTWRIGHT, N., SOUSA, I., CHETWYND, A., POLKEY, M., GEDDES, D., PEPPER, J., DIGGLE, P. and GOLDSTRAW, P. (2006). Effect and duration of lung volume reduction surgery on pulmonary function: mid term results of the Brompton trial. *The Thoracic and Cardiovascular Surgeon*, **54**, 188–192.
123. ROMANOWICZ, YOUNG, P., BROWN, P. AND DIGGLE, P (2006). A recursive estimation approach to the spatio-temporal analysis and modelling of air quality data. *Environmental Modelling and Software*, **21**, 759–769.
124. DIGGLE, P.J, GOMEZ-RUBIO, V., BROWN, P.E., CHETWYND, A.G and GOODING, S. (2007). Second-order analysis of inhomogeneous spatial point processes using case-control data. *Biometrics*, **63**, 550–557.

125. Diggle, P.J., Thomson, M.C., Christensen, O.F., Rowlingson, B., Obsomer, V., Gardon, J., Wanji, S., Takougang, I., Enyong, P., Kamgno, J., Remme, H., Boussinesq, M. and Molyneux, D.H. (2007). Spatial modelling and prediction of *Loa loa* risk: decision making under uncertainty. *Annals of Tropical Medicine and Parasitology*, **101**, 499–509.
126. DIGGLE, P.J. , FAREWELL, D. and HENDERSON, R. (2007). Longitudinal data with dropout: objectives, assumptions and a proposal (with Discussion). *Applied Statistics*, **56**, 499–550.
127. DUNN, C.E., BHOPAL, R.S., COCKINGS, S., WALKER, D., ROWLINGSON, B. and DIGGLE, P. (2007). Advancing insights into environment-health relationships: a multidisciplinary approach to understanding Legionnaires' disease. *Health and Place*, **13**, 677-690.
128. GREEN, G.H. and DIGGLE, P.J. (2007). On the operational characteristics of the Benjamini and Hochberg false discovery rate procedure. *Statistical Applications in Genetics and Molecular Biology*, **6**, Issue 1, Article 27.  
Available at: <http://www.bepress.com/sagmb/vol6/iss1/art27>
129. LEATHERBARROW, A.J.H., GRIFFITHS, R., HART, C.A., KEMP, R., WILLIAMS, N.J., DIGGLE, P.J., WRIGHT, E.J., SUTHERST, J., HOUGHTON, P. and FRENCH, N.P. (2007). *Campylobacter lari*: genotype and antibiotic resistance of isolates from cattle, wildlife and water in an area of mixed dairy farmland in the United Kingdom. *Environmental Microbiology*, **9**, 1772–1779.
130. Crainiceanu, C., Diggle, P.J. and Rowlingson, B.S. (2008) Bivariate modelling and prediction of spatial variation in *Loa loa* prevalence in tropical Africa (with Discussion). *Journal of the American Statistical Association*, **103**, 21–43.
131. DIGGLE, P.J., SOUSA, I. and CHETWYND, A.G. (2008). Joint modelling of repeated measurements and time-to-event outcomes: the fourth Armitage lecture. *Statistics in Medicine* **27**, 2981–2998
132. Fanshawe, T.R., Diggle, P.J., Rushton, S., Sanderson, R., Lurz, P.W.W., Glinianaia, S.V., Pearce, M.S., Parker, L., Charlton, M. and Pless-Mulloli, T. (2008). Modelling spatio-temporal variation in exposure to particulate matter: a two-stage approach. *Environmetrics*, **19**, 549–566.
133. LIM, E., ALI, A., THEODOROU, P., SOUSA, I., ASHRAFIAN, H., CHAMAGEORGAKIS, A.D., HENEIN, M., DIGGLE, P. and PEPPER, J. (2008). A longitudinal study of the profile and predictors of left ventricular mass regression after stentless aortic valve replacement. *Annals of Thoracic Surgery*, **85**, 2026–2029.
134. WILSON , D.J., GABRIEL, E., LEATHERBARROW, A.J.H., CHEESBROUGH, J., GEE, S., BOLTON, E., FOX, A., FEARNHEAD, P., HART, C.A. and DIGGLE, P.J. (2008). Tracing the source of campylobacteriosis. *Public Library of Science Genetics* **4(9)**, e1000203 doi:10.1371/journal.pgen.1000203
135. ZHANG, H., YE, Y. and DIGGLE, P. and Shi, J. (2008). Joint modeling of time series measures and recurrent events and analysis of the effects of air quality on respiratory symptoms. *Journal of the American Statistical Association* **103**, 48–60.

136. FENTON, S., CLOUGH, H., DIGGLE, P.J., EVANS, S., DAVISON, S., VINK, D. and FRENCH, N. (2009). Spatial and spatio-temporal analysis of Salmonella infection in dairy herds in England and Wales. *Epidemiology and Infection*, **137**, 847–857.
137. GABRIEL, E. and DIGGLE, P.J. (2009). Second-order analysis of inhomogeneous spatio-temporal point process data. *Statistica Neerlandica* **63**, 43–51
138. PAEZ, M. and DIGGLE, P.J. (2009). Cox processes for estimating temporal variation in disease risk. *Environmetrics*, **20**, 981–1003
139. Wilson, D.J., Gabriel, E., Leatherbarrow, A.J.H., Cheesbrough, J., Gee, S., Bolton, E., Fox, A., Hart, C.A., Diggle, P.J. and Fearnhead, P. (2009). Rapid evolution and the importance of recombination to the gastro-enteric pathogen *Campylobacter jejuni*. *Molecular Biology and Evolution*, **26**, 385–397 (doi:10.1093/molbev/msn264)
140. Dadvanda, P, Stephen Rushton, S., Goffec, L., Rankin, J., Diggle, P. and Pless-Mulloli, T. (2010). Using spatio-temporal modeling to predict long-term exposure to particulate matter at fine spatial and temporal scale. *Atmospheric Environment*, **45**, 659–664. <http://dx.doi.org/10.1016/j.atmosenv.2010.10.034>
141. Diggle, P.J., Kaimi, I. and Abellana, R. (2010). Partial likelihood analysis of spatio-temporal point process data. *Biometrics*, **66**, 347–354.
142. DIGGLE, P.J., MENEZES, R. and SU, T-L. (2010). Geostatistical analysis under preferential sampling (with Discussion). *Applied Statistics* **59**, 191–232.
143. Diggle, P.J., Guan, Y., Hart, A.C., Paize, F. and total popn., M. (2010). Estimating individual-level risk in spatial epidemiology using spatially aggregated information on the population at risk. *Journal of the American Statistical Association*, **105**, 1394–1402.
144. Fanshawe, T.R. and Diggle, P.J. (2010). Spatial prediction in the presence of positional error (with Discussion). *Environmetrics*, **22**, 109–131.
145. GABRIEL, E., WILSON, D.J., LEATHERBARROW, A.J.H., CHEESBROUGH, J., GEE, S., BOLTON, E., FOX, A., FEARNHEAD, P., HART, C.A. and DIGGLE, P.J. (2010). Spatio-temporal epidemiology of *Campylobacter jejuni enteritis*, in an area of Northwest England, 2000–2002. *Epidemiology and Infection* **138**, 1384–1390.
146. Grove-White, D.H., Leatherbarrow, A.J.H., Cripps, P.J. and Diggle, P.J. (2010). Temporal and farm management associated variation in the faecal pat prevalence of *Campylobacter jejuni* in ruminants in three zones in Lancashire. *Epidemiology and Infection* **138**, 549–558
147. Grove-White, D.H., Leatherbarrow, A.J.H., Cripps, P.J., Diggle, P.J. and French, N.P. (2010). Molecular epidemiology and genetic diversity of *Campylobacter jejuni* in ruminants in a rural area of the United Kingdom. *Epidemiology and Infection*, **139**, 1661–1671
148. Hottor, B., Bosio, P., Waugh, J., Diggle, P.J., Byrne, S., Ahenkorah, J., Ockleford, C.D. (2010). Variation in composition of the intervillus space in term placentas of mothers with pre-eclampsia. *Placenta* **31**, 409–417.
149. Rodrigues, A. and Diggle, P.J. (2010). A class of convolution-based models for spatio-temporal processes with non-separable covariance structure. *Scandinavian Journal of Statistics*, **37**, 553–567.

150. Rodrigues, A., Diggle, P. and Assuncao, R. (2010). Semi-parametric approach to point source modelling in epidemiology and criminology. *Applied Statistics*, **59**, 533–542.
151. Solomon, L.R., Cheesbrough, J.C., Leonard, E., Heap, M., Al-Sayed, T., Millband, N., Waterhouse, D., Mitra, S., Rema, S., Bhat, R., Schulz, M. and Diggle, P.J. (2010). A randomized, double-blind, controlled trial of taurolidine-citrate catheter locks for the prevention of bacteremia in patients treated with hemodialysis. *American Journal of Kidney Diseases*, **55**, 1060–1068.
152. Allsop, D., Foulds, P.J., Mitchell, D., Parker, A., Turner, R., Green, G., Diggle, P., Taylor, M. and Mann, D. (2011). Phosphorylated alpha-synuclein can be detected in blood plasma and is potentially a useful biomarker for Parkinson’s disease. *Journal of the Federation of the American Societies for Experimental Biology*, **25**, 4127–4137.
153. Bagchi, R. Henrys, P.A., Brown, P.E., Burslem, D.F.R.P., Diggle, P.J., Gunatilleke, C.V.S., Gunatilleke, I.A.U.N., Kassim, A.R., Law, R., Noor, S. and Valencia, R.L. (2011). Spatial patterns reveal negative density dependence and habitat associations in tropical trees. *Ecology* **92**, 1723-1729.
154. Diggle, P.J. (2011). Estimating prevalence using an imperfect test. *Epidemiology Research International*, Article ID 608719, 5 pages. doi:10.1155/2011/608719.
155. Hoefield, R.A., Kalra, P.A., Baker, P.G., Sousa, I., Diggle, P.J., Gibson, J.M., O’Donoghue, D.J., Middleton, R.J. and New, J.P. (2011). The use of eGFR and ACR to predict decline in renal function in people with diabetes. *Nephrology Dialysis Transplantation*, **26**, 887-892.
156. Illingworth, E., Taborn, E., Fielding, D., Cheesbrough, J., Diggle, P.J. and Orr, D. (2011). Is closure of entire wards necessary to control norovirus outbreaks in hospital? Comparing the effectiveness of two infection control strategies. *Journal of Hospital Infection*, **79**, 32–37.
157. Kaimi, I. and Diggle, P.J. (2011). A hierarchical model for real-time monitoring of variation in risk of non-specific gastro-intestinal infections. *Epidemiology and Infection* **139**, 1854–1862 doi:10.1017/S0950268811000057
158. Paize, F. , Carrol, E., Downey, C., Parry, C.M., Green, G., Diggle, P., Newland, P., Riordan, F.A.I., Thomson, A., Hart, C.A., Toh, C.-H.(2011). Diagnostic efficacy of activated partial thromboplastin time waveform and procalcitonin analysis in pediatric meningococcal sepsis. *Pediatric Critical Care Medicine*, **12**, e322–e329
159. Ramis, R., Diggle, P.J., Cambra, K. and Lopez-Abente, G. (2011). Prostate cancer and industrial pollution risk around a putative focus in a multi-source scenario. *Environment International*, **37**, 577–585.
160. Ramis, R., Diggle, P.J., Boldo, E., Garcia-Perez, J., Fernandez-Navarro, P. and Lopez-Abente, G. (2012). Analysis of matched geographical areas to study potential links between environmental exposure to oil refineries and non-Hodgkin lymphoma mortality in Spain. *International Journal of Health Geographics* **11:4** doi:10.1186/1476-072X-11-4
161. Stanton, M.C., Taylor-Robinson, D., Harris, D., Paize F., Makwana, N., Hackett, S.J., Baines, P.B., Riordan, F.A.I., Marzouk, O., Thomson, A.P.J., Diggle, P.J., Hart, C. and

- Carrol, E.D. (2011). Meningococcal disease in children in Merseyside, England: a 31 year descriptive study. *PLoS One*, **6**, e25957
162. Taylor-Robinson, D., Agarwal, U., Diggle, P.J., Platt, M.J., Yoxall, B. and Alfirevic, Z. (2011). Quantifying the Impact of Deprivation on Preterm Births: A Retrospective Cohort Study. *PLoS ONE* **6**: e23163. doi:10.1371/journal.pone.0023163
  163. Thomas, S., Cheesbrough, J., Plumb, S., Bolton, L., Wilkinson, P., Walmsley, J. and Diggle, P. (2011). Impact of a blood culture collection kit on the quality of blood culture sampling: fear and the law of unintended consequences. *Journal of Hospital Infection*, **78**, 256–259.
  164. Zoure, H., Wanji, S., Noma, M., Amazigo, U., Diggle, P.J., Tekle, A. and Remme, J.H. (2011). The geographic distribution of Loa loa in Africa: results of large-scale implementation of the Rapid Assessment Procedure for Loiasis (RAPLOA). *Public Library of Science: Neglected Tropical Diseases* **5**, (6): e1210. doi:10.1371/journal.pntd.0001210
  165. Agier, L., Stanton, M., Soga, G. and Diggle, P.J. (2012). A multi-state spatio-temporal Markov model for categorized incidence of meningitis in sub-Saharan Africa. *Epidemiology and Infection*. DOI:10.1017/S0950268812001926
  166. Claridge, J., Diggle, P.J., McCann, C.M., Mulcahy, G., Flynn, R., McNair, J., Strain, S., Welsh, M., Baylis, M. and Williams, D.J.L. (2012). Fasciola hepatica is associated with failure to detect bovine tuberculosis in dairy cattle *Nature Communications* **3**, doi:10.1038/ncomms1840
  167. Deng, L., Diggle, P.J. and Cheesbrough, J. (2012). Estimating incidence rates using exact or interval-censored data, with an application to hospital-acquired infections. *Statistics in Medicine* **31**, 963–977.
  168. Dunn, C.E., Rowlingson, B., Bhopal, R.S. and Diggle, P. (2012). Meteorological conditions and incidence of Legionnaires' disease in Glasgow, Scotland: application of statistical modelling. *Epidemiology and Infection*, **141**, 687–696. doi: <http://dx.doi.org/10.1017/S095026881200101X>
  169. Fanshawe, T.F. and Diggle, P.J. (2012). Bivariate geostatistical modelling: a review and an application to spatial variation in radon concentrations. *Environmental and Ecological Statistics*, **19**, 139-160
  170. Gabrielatos, C., McEnery, T., Diggle, P.J. and Baker, P. (2012). The peaks and troughs of corpus-based contextual analysis. *International Journal of Corpus Linguistics*, **17**, 151–175.
  171. Maddox, T.W., Clegg, P.D., Diggle, P.J., Wedley, A.L., Dawson, S., Williams, N.J. and Pinchbeck, G.L. (2012). Cross-sectional Study of Antimicrobial-resistant Bacteria in Horses. Part 1: Prevalence of antimicrobial-resistant Escherichia coli and Methicillin-Resistant Staphylococcus Aureus (MRSA). *Equine Veterinary Journal* **44**, 297–303.
  172. Rodrigues, R. and Diggle P.J. (2012). Bayesian estimation and prediction for inhomogeneous spatio-temporal log-Gaussian Cox processes using low-rank models, with application to criminal surveillance *Journal of the American Statistical Association*, **107**, 93–101.



173. Taylor-Robinson, D., Whitehead, M., Diderichsen, F., Olesen, H.V., Pressler, T., Smyth, R.L. and Diggle, P. (2012). Understanding the natural progression in %FEV1 decline in patients with cystic fibrosis: a longitudinal study. *Thorax*, **67**, 860–866. doi 10.1136/thoraxjnl-2011-200953
174. Solomon, L.R., Cheesbrough, J.S., Bhargava, R., Mitsides, N., Heap, M., Green, G. and Diggle, P. (2012). Observational study of need for thrombolytic therapy and incidence of bacteremia using taurolidine-citrate-heparin, taurolidine-citrate and heparin catheter locks in patients treated with hemodialysis. *American Society of Diagnostic and Interventional Nephrology Section of Seminars in Dialysis*, **25**, 233–238. DOI: 10.1111/j.1525-139X.2011.00951.x
175. Taylor-Robinson, D., Smyth, R.L., Diggle, P.J. and Whitehead, M.M. (2012). The effect of social deprivation on clinical outcomes and the use of treatments in the UK cystic fibrosis population: a longitudinal study. *The Lancet Respiratory Medicine*, [http://dx.doi.org/10.1016/S2213-2600\(13\)70014-6](http://dx.doi.org/10.1016/S2213-2600(13)70014-6)
176. Wanji, S., Akotshi, D.O., Kankou, J.M., Nigo, M., Tepage, F., Ukety, T., Diggle, P.J. and Remme, J.H. (2012). The validation of the rapid assessment procedures for loiasis (RAPLOA) in the Democratic Republic of Congo: health policy implications. *Parasites and Vectors* **5**, 25 doi:10.1186/1756-3305-5-25
177. Diggle, P.J., Moraga, P., Rowlingson, B. and Taylor, B. (2013). Spatial and spatio-temporal log-Gaussian Cox processes: extending the geostatistical paradigm. *Statistical Science*, **28**, 542–563.
178. Foulds, P.G., Diggle, P., Mitchell, J.M., Parker, A., Hasegawa, M., Masuda-Suzukake, M., Mann, D.M.A. and Allsop, D. (2013). A longitudinal study on  $\alpha$ -synuclein in blood plasma as a biomarker for Parkinsons disease. *Nature Scientific Reports* **3**, DOI:10.1038/srep02540
179. Gabriel, E., Rowlingson, B. and Diggle, P.J. (2013). STPP: plotting, simulating and analysing spatio-temporal point patterns. *Journal of Statistical Software*, **53**, issue 2
180. Impoinvil, D.I., Ooi, M.H., Diggle, P.J., Caminade, C., Cardoso, M.J., Morse, A.P., Baylis, M. and Solomon, T. (2013). The effect of vaccination coverage and climate on Japanese encephalitis in Sarawak, Malaysia. *Public Library of Science: Neglected Tropical Diseases*, **7**, e2334
181. Jones, S., Calam, R., Sanders, M., Diggle, P.J., Dempsey, R. and Sadhnani, V. (2013). A pilot web-based positive parenting intervention to help bipolar parents to improve perceived parenting skills and child outcomes. *Behavioural and Cognitive Psychotherapy* doi:10.1017/S135246581300009X
182. Noble, J.C. and Diggle, P.J. (2013). The population biology of coppicing plants: survival of mallee (*Eucalyptus* spp.) populations exposed to contrasting fire and cutting regimes. *Australian Journal of Botany*, **61**, 552–557.
183. Reeve, N.F., Fanshawe, T.R., Keegan, T.J., Stewart, A.G. and Diggle, P.J. (2013). Spatial analysis of health effects of large industrial incinerators in England, 1998-2008: a study using matched case-control areas *BMJ Open* **3:e001847** doi:10.1136/bmjopen-2012-001847

184. Rowlingson, B., Lawson, E., Taylor, B. and Diggle, P.J. (2013). Mapping English GP prescribing data: a tool for monitoring health-service inequalities. *BMJ Open*, 3:e001363, doi:10.1136/bmjopen-2012-001363
185. Sofianopoulou, E., Rushton, S., Diggle, P.J. and Pless-Mullooli, T. (2013). Association between air pollution and monthly respiratory prescribing in primary health care. *Journal of Public Health*, **35**, 502–509
186. Stanton, M.C. and Diggle, P.J. (2013). Geostatistical analysis of binomial data: generalized linear or transformed Gaussian modelling? *Environmetrics*, **24**, 158–171
187. Taylor, B.M. and Diggle, P.J. (2013). MCMC or MCMC? A tutorial and comparative evaluation for spatial prediction in log-Gaussian Cox processes. *Journal of Statistical Computation and Simulation*, **84**, 2266–2284. doi: 10.1080/00949655.2013.788653
188. Taylor, B.M., Davies, T.M., Rowlingson, B.S. and Diggle, P.J. (2013). lgcp: Inference with spatial and spatio-temporal log-Gaussian Cox processes in R. *Journal of Statistical Software*, **52**, 4.
189. Taylor-Robinson, D.C., Smyth, R., Diggle, P.J. and Whitehead, M. (2013). A longitudinal study of the impact of social deprivation and disease severity on employment status in the UK cystic fibrosis population. *PLoS ONE* 8(8): e73322. doi:10.1371/journal.pone.0073322
190. Baddeley, A., Diggle, P.J., Hardegene, A., Lawrence, T., Milne, R. and Nair, G. (2014). On tests of spatial pattern based on simulation envelopes. *Ecological Monographs*, **84**, 477-489
191. Derbyshire, B., Diggle, P.J., Ingham, C.J., Macnair, R., Wimhurst, J., Wynn Jones, H. (2014). A new technique for radiographic measurement of acetabular cup orientation. *Journal of Arthroplasty*, **29**, 369–372.
192. Lobban, F., Dodd, A., Dagnan, D., Diggle, P.J., Griffiths, M., Hollingsworth, B., Knowles, D., Long, R., Mallinson, S., Morriss, R.M., Parker, R. and Sawczuk, A. (2014). Feasibility and acceptability of web-based enhanced relapse prevention for bipolar disorder (ERPonline): trial protocol. *Contemporary Clinical Trials* (submitted).
193. Pérez, C., Stanton, M., Diggle, P., Trzaska, S., Miller, R., Perlwitz, J., Baldasano, J.M, Cuevas, E., Ceccato, P., Yaka, P. and Thomson, M. (2014). Soil dust aerosols and wind as predictors of seasonal meningitis incidence in Niger. *Environmental Health Perspectives*, **122**, 679–686. doi:10.1289/ehp.1306640
194. Pérez, C., Thomson, M., Stanton, M., Diggle, P., Hopson, T., Pandya, R. and Miller, R. (2013). Meningitis and climate: from science to practice. *Earth Perspectives*, DOI: 10.1186/2194-6434-1-14
195. Reeve, N.F. et al (2014). Giardiasis in North West England: Faecal Specimen Requesting Rates by GP Practice. *Epidemiology and Infection* doi:10.1017/S0950268814002350
196. Stanton, M.C., Agier, L., Taylor, B.M. and Diggle, P.J. (2014). Towards real-time spatio-temporal prediction of district-level meningitis incidence in sub-Saharan Africa. *Journal of the Royal Statistical Society, A* **177**, 661–678.

197. Tamayo-Uria, I., Mateu, J. and Diggle, P.J. (2014). Modelling of the spatio-temporal distribution of rat sightings in an urban environment. *Spatial Statistics*, **9**, 192–206. (doi <http://dx.doi.org/10.1016/j.spasta.2014.03.005>)
198. Taylor-Robinson, D.C., Thielen, K., Pressler, T., Olesen, H.V., Diderichsen, F., Diggle, P.J., Smyth, R. and Whitehead, M. (2014). Low socioeconomic status is associated with worse lung function in the Danish cystic fibrosis population. *European Respiratory Journal*, **44**, 1363–1366
199. Todd, S. Diggle, P., White, P., Fearne, A. and Read, J. (2014). The spatio-temporal association of non-prescription retail sales with cases during the 2009 influenza pandemic in Great Britain. *BMJ Open*, **4**, e004869. doi:10.1136/bmjopen-2014-004869
200. Zoure, H.G.M., Noma, M., Tekle, A.H., Amazigo, U.V., Diggle, P.J., Giorgi, E. and Remme, J.H.F. (2014). The geographic distribution of onchocerciasis in the 20 participating countries of the African Programme for Onchocerciasis Control: 2. Pre-control endemicity Levels and estimated number infected. *Parasites and Vectors*, **7**, 326, doi:10.1186/1756-3305-7-326
201. Allen, K., Pearson-Stuttard, J., Hooton, W., Diggle, P., Capewell, S. and O’Flaherty, M. (2015). Potential of trans fats policies to reduce socioeconomic inequalities in mortality from coronary heart disease in England: cost effectiveness modelling study. *British Medical Journal*, **351**, h4583 (doi: 10.1136/bmj.h4583)
202. Asar, O., Ritchie, J., Kalra, P. and Diggle, P. (2015). Joint modelling of repeated measurement and time-to-event data: an introductory tutorial. *International Journal of Epidemiology*, **44**, 334–344.
203. Backman, R., Foy, R., Diggle, P.J., Kneen, R., Defres, S., Michael, B.D., Medina-Lara, A. and Solomon, T. (2015). The evaluation of a tailored intervention to improve the management of suspected viral encephalitis: protocol for a cluster randomised controlled trial. *Implementation Science*, **10**, 14 doi:10.1186/s13012-014-0201-1
204. Barrett, J., Diggle, P.J., Henderson, R. and Taylor-Robinson, D. (2015). Joint modelling of repeated measurements and time-to-event outcomes: flexible model specification and exact likelihood inference. *Journal of the Royal Statistical Society, B* **77**, 131–148.
205. Diggle, P.J., Sousa, I. and Asar, O. (2015). Real-time monitoring of progression towards renal failure in primary care patients. *Biostatistics*, **16**, 522–536.
206. Diggle, P.J. and Giorgi, E. (2015). Geostatistical mapping of helminth infection rates. *Lancet Infectious Diseases*, **15**, 9–11.
207. Downe, S., Finlayson, K., Melvin, C., Spiby, H., Ali, S., Diggle, P., Gyte, G., Hinder, S., Miller, V., Slade, P., Trepel, D., Weeks, A., Whorwell, P. and Williamson, M. (2015). Self-hypnosis for intrapartum pain management in pregnant nulliparous women: a randomised controlled trial of clinical effectiveness. *British Journal of Obstetrics and Gynaecology*, DOI: 10.1111/1471-0528.13433.
208. Gillespie, D.O.S., Allen, K., Guzman-Castillo, M., Bandosz, P., Moreira, P., McGill, R., Anwar, E., Lloyd-Williams, F., Bromley, H., Diggle, P.J., Capewell, S. and O’Flaherty, M. (2015). The health equity and effectiveness of future policy options to reduce dietary salt intake in England: mechanistic policy forecast. *PLoS One* DOI: 10.1371/journal.pone.0127927

209. Giorgi, E. and Diggle, P.J. (2015). On the inverse geostatistical problem of inference on missing locations. *Spatial Statistics*, **11**, 35–44.
210. Giorgi, E., Sesay, S.S., Terlouw, D.J. and Diggle, P.J. (2015). Combining data from multiple spatially referenced prevalence surveys using generalized linear geostatistical models. *Journal of the Royal Statistical Society A* **178**, 445–464.
211. Grell, K., Diggle, P.J., Frederiksen, K, Sch'uz, J. Cardise, E. and Andersen, P.K. (2015). A three-dimensional point process model for the spatial distribution of disease occurrence in relation to an exposure source. *Statistics in Medicine*, **34**, 3179–3180.
212. Hickey, G. et al (2015). The feasibility of testing whether *Fasciola hepatica* is associated with increased risk of verocytotoxin producing *Escherichia coli* O157 from an existing study protocol. *Preventive Veterinary Medicine*, **119**, 97–104.
213. Irwin, A., Drew, R., Marshall, P., Nguyen, K., Hoyle, E., Macfarlane, K., Wong, H., Mekonnen, E., Hicks, M., Steele, T., Gerrard, C., Hardiman, F., McNamara, P., Diggle, P. and Carrol, E. (2015). Etiology of Childhood bacteremia and timely antibiotics administration in the emergency department. *Paediatrics*, **135**, 635–642
214. Jones, S.H., Wainwright, L.D., Jovanoska, J., Vincent, H., Diggle, P.J., Calam, R., Parker, R., Long, R., Mayes, D., Sanders, M. and Lobban, F. (2015). An exploratory randomised controlled trial of a web-based integrated bipolar parenting intervention (IBPI) for bipolar parents of young children (aged 3-10). *BMC Psychiatry*, **15**, pp122.
215. Read, J.M., Diggle, P.J., Chirombo, J., Solomon, T. and Baylis, M. (2015). Effectiveness of screening for Ebola at airports. *The Lancet*, **385**, 23–24. [http://dx.doi.org/10.1016/S0140-6736\(14\)](http://dx.doi.org/10.1016/S0140-6736(14)
216. Taylor, B.M., Davies, T.M., Rowlingson, B.S. and Diggle, P.J. (2015). Bayesian inference and data augmentation schemes for spatial, spatiotemporal and multivariate log-Gaussian Cox processes in R. *Journal of Statistical Software*, **63**, 1–48.
217. Aheto, J.M.K., Keegan, T.J., Taylor, B.M. and Diggle, P.J. (2015). Childhood malnutrition and its determinants among under-five children in Ghana. *Paediatric and Perinatal Epidemiology*, **29**, 552–561. doi: 10.1111/ppe.12222
218. Diggle, P.J. (2015). Statistics: a data science for the 21st century. *Journal of the Royal Statistical Society A* **178** 793–813.
219. Aheto, J.M.K., Taylor, B.M., Diggle, P.J. and Keegan, T.J. (2015). Modelling spatial variations in the risk of childhood malnutrition among under-five children in Ghana. In *Epidemiology*, EDE15-0827, 18 pages. *Paediatric and Perinatal Epidemiology* (submitted).
220. Spain, L., Rajoub, B., Schleter, D.K., Waterton, J., Bowes, M., Shark, L-K, Diggle, P. and Goodacre, J. (2015). Biomarkers for knee osteoarthritis: new technologies, new paradigms, *International Journal of Clinical Rheumatology*, **10**, 287–297
221. Allen, K., Gillespie, D.O.S., Guzman-Castillo, M., Diggle, P.J., Capewell, S. and O'Flaherty, M. (2016). Future trends and inequalities in premature coronary deaths in England: Modelling study. *International Journal of Cardiology*, **203**, 290–297.

222. Allen, K., Kypridemos, C., Hyseni, L., Gilmore, A.B., Diggle, P., Whitehead, M., Capewell, S. and O'Flaherty, M. (2016). The effects of maximising the UK's Tobacco Control Score on inequalities in smoking prevalence and premature coronary heart disease mortality: a modelling study. *BMC Public Health*, **16**, 292, DOI: 10.1186/s12889-016-2962-8
223. Asar, O., Ritchie, J., Kalra, P.A. and Diggle, P.J. (2016). Short-term and long-term effects of acute kidney injury in chronic kidney disease patients: a longitudinal analysis. *Biometrical Journal*, **58**, 1552-1566
224. Ballester, J., Lowe, R., Diggle, P.J. and Rodó, X. (2016). Seasonal forecasting and health impact models: challenges and opportunities. *Proceedings of the new York Academy of Sciences*, **13821**, 8-20.
225. Breeze, P. Squires, H., Chilcott, J., Stride, C., Diggle, P., Brunner, E., Tabak, A. and Brennan, A. (2016). A statistical model to describe longitudinal and correlated metabolic risk factors: the Whitehall II prospective study. *Journal of Public Health*, **38**, 679-687
226. Chipeta, M., Terlouw, D.J., Phiri, K. and Diggle, P.J. (2016). Adaptive geostatistical design and analysis for sequential prevalence surveys. *Spatial Statistics*, **15**, 70-84.
227. Diggle, P.J. and Giorgi, E. (2016). Model-based geostatistics for prevalence mapping in low-resource settings (with Discussion). *Journal of the American Statistical Association*, **111**, 1096-1120
228. Ediriweera, D.S., Kasturiratne, A., Pathmeswaran, A., Gunawardena, N.K., Wijewickrema, B., Jayamanne, S.F., Isbister, G., Dawson, A., Giorgi, E., Diggle, P., Lalloo, D.G. and de Silva, H.J. (2016). Mapping the risk of snakebite in Sri Lanka- a national survey with geospatial analysis. *Public Library of Science: Neglected Tropical Diseases* (to appear).
229. Garza Cuartero, L., O' Sullivan, J., Blanco, A., Mcnair, J., Welsh, M., Flynn, R. J., Williams, D., Diggle, P., Cassidy, J. and Mulcahy, G (2016). *Fasciola hepatica* infection reduces *Mycobacterium bovis* burden and mycobacterial uptake and suppresses the pro-inflammatory response. *Parasite Immunology*, **38**, 387-402
230. Giorgi, E., Kreppel, K., Diggle, P., Caminade, C., Rajerison, M., Baylis, M., Ratsitorahina, M. (2016). Modelling of spatio-temporal variation in plague incidence in Madagascar from 1980 to 2007. *Spatial and Spatio-temporal Epidemiology* **19**, 125-135.
231. Hacker, K. P., Minter, A., Begon, M., Diggle, P. J., Serrano, S., Reis, M. G. and Costa, F. (2016). A comparative assessment of track plates to quantify fine scale variations in the relative abundance of Norway rats in urban slums. *Urban Ecosystems*, 1-15, DOI: 10.1007/s11252-015-0519-8
232. Hagan, J.E., Moraga, P., Costa, F., Capian, N., Ribeiro, G.S., Wunder, E.A., Felzemburgh, R.D.M., Reis, R.B., Nery, N., Santana, F.S., Fraga, D., dos Santos, B.L., Santos, A.C., Queiroz, A., Tassinari, W., Carvalho, M.A., Reis, M.G., Diggle, P.J. and Ko, A.I. (2016). Spatiotemporal determinants of urban leptospirosis transmission: Four-year prospective cohort study of slum residents in Brazil. *Public Library of Science: Neglected Tropical Diseases*. January 2016, Vol.10(1), pp.e0004275

233. Kabaghe, A., Chipeta, M.G., McCann, R.S, Phiri, K.S., van Vugt, M., Takken, W., Diggle, P. and Terlouw, A.D. (2016). Adaptive geostatistical sampling enables efficient identification of malaria hotspots in repeated cross-sectional surveys in rural Malawi. *PLoS ONE*, **12**, e0172266. doi:10.1371/journal.pone.0172266
234. Moxon, C., Zhao, L., Li, C., Seydel, K., MacCormick, I., Diggle, P.J., Mallewa, M., Solomon, T., Beare, N.A., Glover, S.J., Harding, S.P., Lewallen, S., Kampondeni, S., Potchen, M.J., Taylor, T.E. and Postels, D. (2017). Safety of lumbar puncture in comatose children with clinical features of cerebral malaria. *Neurology*, **87**, 2355–2362.
235. Qvist, T., Taylor-Robinson, D., Waldmann, E., Olesen, H.V., Hansen, C.R., Mathiesen, I.H., Høiby, N., Katzenstein, T.K., Smyth, R.L., Diggle, P.J. and Pressler, T. (2016). Comparing the harmful effects of nontuberculous mycobacteria and Gram negative bacteria on lung function in patients with cystic fibrosis. *Journal of Cystic Fibrosis*, **15**, 380–385.
236. Schlüter, D.K., Ndeffo-Mbah, M.L., Takougang, I., Ukety, T., Wanji, S., Galvani, A.P. and Diggle, P.J. (2016). Using community-level prevalence of *Loa loa* infection to predict the proportion of highly-infected individuals: statistical modelling to support lymphatic filariasis elimination programs. *PLoS Neglected Tropical Diseases*, **10**, 12, e0005157. doi:10.1371/journal.pntd.0005157
237. Wootton, D., Diggle, P., Court, J., Eneje, O., Keogan, L., Macfarlane, L., Wilks, S., Woodhead, M. and Gordon, S. (2016). Recovery from pneumonia requires efferocytosis which is impaired in smokers and those with low body mass index and enhanced by statins. *Thorax*, **71**, 1052–1054.
238. Aheto, J.M.K, Taylor, B.M., Keegan, T.J. and Diggle, P.J. (2017). Modelling and forecasting spatio-temporal variations in the risk of chronic malnutrition among under-five children in Ghana. *Spatial and Spatio-temporal Epidemiology*, **21**, 37–46.
239. Breeze, P., Thomas, C., Squires, H., Brennan, A., Greaves, C., Diggle, P., Brunner, E., Tabak, A., Preston, L. and Chilcott, J. (2017). The impact of type 2 diabetes prevention programmes based on risk-identification and lifestyle intervention intensity strategies: a cost-effectiveness analysis. *Diabetic Medicine*, **34**, 632–640.
240. Breeze, P., Thomas, C., Squires, H., Brennan, A., Greaves, C., Diggle, P., Brunner, E., Tabak, A., Preston, L. and Chilcott, J. (2017). Cost-effectiveness of population-based, community, workplace and individual policies for diabetes prevention in the UK. *Diabetic Medicine*, **34**, 1136–1144.
241. Chipeta, M.G., Terlouw, D.J., Phiri, K.S. and Diggle, P.J. (2017). Inhibitory geostatistical designs for spatial prediction taking account of uncertain covariance structure. *Environmetrics*, **28**, DOI: 10.1002/env.2425.
242. Giorgi, E. and Diggle, P.J. (2017). PrevMap: an R package for prevalence mapping. *Journal of Statistical Software*, **78**, 1-29, doi:10.18637/jss.v078.i08
243. Giorgi, E., Schlüter, D.K. and Diggle, P.J. (2017). Bivariate geostatistical modelling of the relationship between *Loa loa* prevalence and intensity of infection. *Environmetrics*, **17**, DOI: 10.1002/env.2447

244. Jones, S., Jovanoska, J., Calam, R., Wainwright, L.D., Vincent, H., Asar, O., Diggle, P.J., Parker, R., Long, R., Sanders, M. and Lobban, F. (2017). Web-based integrated bipolar parenting intervention (IBPI) for parents with bipolar disorder: A randomised controlled pilot trial. *Journal of Child Psychology and Psychiatry*, DOI: 10.1111/jcpp.12745
245. Lobban, F., Dodd, A.L., Sawczuk, A.P., Asar, O., Dagnan, D., Diggle, P.J., Griffiths, M., Honary, M., Knowles, D., Long, R., Morris, R., Parker, R., Jones, S. (2017). Assessing feasibility and acceptability of web-based enhanced relapse prevention for bipolar disorder (ERPonline): a randomised controlled trial. *Journal of Medical Internet Research* **19**, doi:10.2196/jmir.7008
246. McCann, R.S., van den Berg, H., Diggle, P.J., van Vugt, M., Terlouw, D.J., Phiri, K.S., Di Pasquale, A., Maire, N., Gowelo, S., Mburu, M., Kabaghe, A.N., Mzilahowa, T., Michael G. Chipeta, M.G. and Takken, W. (2017). Assessment of the effect of larval source management and house improvement on malaria transmission when added to standard malaria control strategies in southern Malawi: study protocol for a cluster-randomised controlled trial. *BMC Infectious Diseases*, **17**, DOI: 10.1186/s12879-017-2749-2
247. MacCormick, I., Zheng, I., Czanner, S., Zhao, Y., Diggle, P., Harding, S.P. and Czanner, G. (2017). Spatial statistical modelling of capillary non-perfusion in the retina. *Scientific Reports*, **7**: 16792 DOI:10.1038/s41598-017-16620-x
248. Minter, A., Diggle, P.J., Costa, F., Childs, J. Ko, A.I. and Begon, M. (2017). Evidence of multiple intraspecific transmission routes for *Leptospira* acquisition in Norway rats (*Rattus norvegicus*). *Epidemiology and Infection*, doi:10.1017/S0950268817002539
249. Peterson, I., Benjamin, L., Mwandumba, H., Ntusi, N., Diggle, P., Jambo, K., Afran, L., Kelly, C., Sattar, N., McInnes, I. and Touyz, R. (2017). A platform for cardiovascular disease (CVD) research in Malawi, with an initial focus on the link between infection, vascular damage and hypertension *JMIR Research Protocols*, doi:10.2196/resprot.8094
250. Sesay, S.S., Giorgi, E., Diggle, P.J., Schellenberg, D., Lalloo, D.G. and Terlouw, D.J. (2017). Surveillance in easy to access population subgroups as a tool for evaluating malaria control progress: a systematic review *PLoS ONE*, **12**, DOI: 10.1371/journal.pone.0183330
251. Singogo, E., Thomas J. Keegan, T.J., Diggle, P.J., van Lettow, M., A Matengeni, M., van Oosterhout, J.J., Sodhi, S., Joshua, M. and Taylor, B.M. (2017). Differences in survival among adults with HIV-associated Kaposi sarcoma during routine HIV treatment initiation in Zomba district, Malawi: a retrospective cohort analysis. *International Health*, **9**, 281–287.
252. Sofianopoulou, E., Pless-Mullooli, T., Rushton, S. and Diggle, P.J. (2017). Modelling seasonal and spatio-temporal variation in respiratory prescribing. *American Journal of Epidemiology*, **186**, 101–108.
253. Stresman, G. H., Giorgi, E., Baidjoe, A., Knight, P., Odongo, W., Owaga, C., Shagari, S., Makori, E., Stevenson, J., Drakeley, C., Cox, J., Bousema, T. and Diggle, P. J. (2017). Impact of metric and sample size on determining malaria hotspot boundaries *Scientific Reports*, **7**, 45849.
254. Casanovas-Massana, A., Costa, F., Riediger, I.N., Cunha, M., de Oliveira, D., Motab, D.C., Sousa, E., Querino, V.A. and Nery, N., Reis, M.G., Wunder, E.A., Diggle, P.J. and

Ko, A.I. (2018). Spatial and temporal dynamics of pathogenic *Leptospira* in surface waters from the urban slum environment. *Water Research*, **130**, 176–184.

255. Peterson, I., Benjamin, L., Mwandumba, H., Ntusi, N., Diggle, P., Jambo, K., Afran, L., Kelly, C., Sattar, N., McInnes, I. and Touyz, R. (2017). A platform for cardiovascular disease (CVD) research in Malawi, with an initial focus on the link between infection, vascular damage and hypertension. *JMIR Research Protocols*, doi:10.2196/resprot.8094

#### Refereed journal articles: in press

1. Adhikarla, H., Wunder, E.A., Mechaly, A., Mehta, S., Wang, Z., Santos, L., Bisht, V., Diggle, P., Murray, G., Adler, B., Lopez-Giraldez, F., Townsend, J., Groisman, E., Picardeau, M., Buschiazzo, A. and Ko, A. (2018). Lvr, a signaling system that controls global gene regulation and virulence in pathogenic *Leptospira*. *Frontiers in Cellular and Infection Microbiology*, **8**, <https://www.frontiersin.org/article/10.3389/fcimb.2018.00045>
2. Amoah, B., Giorgi, E., Hayes, D., Van Buuren, S. and Diggle, P. (2018). Geostatistical modelling of the association between malaria and child growth in Africa. *International Journal of Health Geographics*
3. Carvalho-Pereira, T., Souza, F.N., Santos, L.R.N., Walker, R., Pertile, A.C., de Oliveira, D.S., Pedra, G.G., Minter, A., Gorete-Rodrigues, M., Bahiense, T.C., Reis, M.G., Diggle, P., Ko, A.I., Childs, J.E., da Silva, E.M., Begon, M. and Costa, F. (2017). The helminth community of a population of *Rattus norvegicus* from an urban Brazilian slum and the threat of zoonotic diseases. *Parasitology* <https://doi.org/10.1017/S0031182017001755>
4. Casanovas-Massana, A., Pedra, G., Wunder, E., Begon, M., Diggle, P. and Ko, A. (2018). Quantitative survival of *Leptospira interrogans* in soil and water microcosms. *Applied and Environmental Microbiology*
5. Diggle, P.J., Green, P.J. and Silverman, B.W. (2018). Julian Ernst Besag. 26 March 1945 to 6 August 2010 Elected FRS 2004. *Biographical Memoirs of Fellows of the Royal Society* (<https://arxiv.org/pdf/1711.10262>)
6. Giorgi, E., Diggle, P.J., Snow, R.W. and Noor, A.M. (2018). Geostatistical methods for disease mapping and visualization using data from spatio-temporally referenced prevalence surveys. *International Statistical Review*
7. Irwin, A., Grant, A., Williams, R., Kolamunnage-Dona, R., Drew, R., Stéphane, P., Jeffers, G., Williams, K., Rachel, B., Preston, J., Appleby, D., Chesters, C., Newland, P., Marzouk, O., McNamara, P., Diggle, P. and Carroll, E. (2017). Predicting risk of serious bacterial infections in febrile children in the emergency department. *Pediatrics*
8. McCann, R.S., van den Berg, H., Takken, W., Chetwynd, A.G., Giorgi, E. and Diggle, P.J. (2017). Randomized trial designs with spatial constraints. *BMC Medical Research Methodology*
9. Taylor, A.M., Diggle, P.J. and Wessels, Q. (2017). Anatomy education to the wider public and the far reaching implications. *Anatomical Sciences Education*, DOI: 10.1002/ase.1746



10. Wootton, D.G., Dickinson, L., Pertinez, H., Court, J., Eneje, O., Keogan, L., Macfarlane, L., Wilks, D., Gallagher, J., Woodhead, M., Gordon, S.B. and Diggle, P.J. (2017). A longitudinal modelling study estimates acute symptoms of community acquired pneumonia recover to baseline by 10 days. *European Respiratory Journal*

### Papers in Conference Proceedings and Compilations

1. BESAG, J., DIGGLE, P.J. and ORD, J.K. (eds.) (1975). Conference on Spatial Processes. *Adv. Appl. Prob.*, **7**, 449-460.
2. DIGGLE, P.J. (1980). Statistical methods for spatial point patterns in ecology. In *Spatial and Temporal Analysis in Ecology*, eds. R. M. Cormack and J. K. Ord, 95-150. Fairland: International Co-operative Publishing House.
3. DIGGLE, P.J. (1981). Some graphical methods in the analysis of spatial point patterns. In *Interpreting Multivariate Data*, ed. V. Barnett. 55-73. Chichester: Wiley.
4. DIGGLE, P.J. and COX, T. F. (1981). On sparse sampling and tests of independence for multivariate spatial point patterns. *Bull. Int. Statist. Inst.*, **49**.
5. DIGGLE, P.J. and TER BRAAK, C.J.F. (1982). Point sampling of binary mosaics in ecology. In *Statistics in Theory and Practice: Essays in Honour of Bertil Matern*, ed. B. Ranney, 107-22. Umea: Swedish University of Agricultural Sciences.
6. BLACKSHAW, R.P. and DIGGLE, P.J. (1985). Effects of chemicals on earthworm populations. In: *Data. A collection of problems from many fields for the student and research worker*. D.I Andrews and A.M. Herzberg, 301-6. Springer-Verlag.
7. DIGGLE, P.J. (1985). Comparing estimated spectral densities using GLIM. In *Generalized Linear Models: proceedings*, Lancaster 1985 (R.Gilchrist, B.Francis and J.Whittaker, eds.). Berlin : Springer-Verlag, pp35-43.
8. DIGGLE, P.J. (1986). Parametric and non-parametric inference for pairwise-interaction point processes. In *Proceedings of the First World Congress of the Bernoulli Society*, Vol. 1 (Y.V.Pruhurov and V.V.Sazanov, eds.). Utrecht: VNU Science Press.
9. DIGGLE, P.J. and ZEGER, S.L. (1987). Modelling endocrinological time-series. *Bull. Int. Statist. Inst.*, **52(4)**, 123-34.
10. DIGGLE, P.J., GATRELL, A.C. and LOVETT, A.A. (1990). Modelling the prevalence of cancer of the larynx in part of Lancashire: a new methodology for spatial epidemiology. In R.M. Thomas (ed.) *Spatial Epidemiology*, London Papers in Regional Science No. 21. London : Pion.
11. GATRELL, A.G, MITCHELL, J.D, GIBSON, H.N. and DIGGLE, P.J. (1991). Tests for spatial clustering in epidemiology: with special reference to motor neurone disease. In *Advances in ALS Research*, 67-77, ed. F. Clifford Rose. London : Smith-Gordon.
12. DIGGLE, P.J. and AL-WASEL, I. (1993). Periodogram-based spectral estimation for replicated timeseries : a frequency-by-frequency approach. In *Festschrift for Maurice Priestley*, ed. T. Subba Rao, 341-54. London : Chapman and Hall.

13. DIGGLE, P.J. (1993). Point process modelling in environmental epidemiology. In *Statistics for the Environment*, 89-110, ed. V. Barnett and F. Turkman. Chichester : Wiley.
14. DIGGLE, P.J. (1996). Spatial analysis in biometry. In *Advances in Biometry*, eds. P. Armitage, H.A. David, 363-84. New York : Wiley.
15. DIGGLE, P.J. and MORRIS, S. (1996). Second-order analysis of spatial clustering. In *Methods for Investigating Localised Clustering of Disease*, ed. F.E. Alexander and P. Boyle, 207-14. Lyon : IARC.
16. DIGGLE, P.J., HARPER, L. and SIMON, S. (1997). Geostatistical analysis of residual contamination from nuclear weapons testing. In *Statistics for the Environment III*, ed. V. Barnett and F. Turkman. Chichester : Wiley
17. DIGGLE P.J., (1997). Introduction to Liang and Zeger (1985). In *Breakthroughs in Statistics*, Volume 3,ed. S. Kotz and N.L. Johnson New York : Springer.
18. DIGGLE , P.J. (1998). Diggle-Kenward model for dropouts. In *Encyclopaedia of Biostatistics*, ed. P.Armitage and T. Colton, 1160-1. New York: Wiley
19. DIGGLE, P.J. (1998). Variogram. In *Encyclopaedia of Biostatistics*, ed P.Armitage and T Colton, 4720-2. New York : Wiley.
20. ZEGER, S.L., DIGGLE, P.J., and HUANG, W. (1998). Generalized linear models for longitudinal data. In *Encyclopaedia of Biostatistics*, ed. P Armitage and T. Colton, 1650-8. New York : Wiley.
21. DIGGLE, P.J. (1998) Dealing with missing values in longitudinal studies. In *Recent Advances in the Statistical Analysis of Medical Data*, ed. B.S. Everitt and G. Dunn, 203-28. London : Arnold.
22. THOMSON, M.C., CONNOR, S.J., D'ALESSANDRO, V, ROWLINGSON, B.S., DIGGLE. P.J, CRESSWELL M, and GREENWOOD, B.M. (1998). A spatial model of malaria risk in the Gambia: predicting the impact of insecticide treated and untreated bednets on malaria infection. In *Proceedings of the 10th Colloquium of the Spatial Information Research Centre*. University of Otago, New Zealand.
23. DIGGLE, P.J. (1999). Population counts in small areas: a commentary. In *Population counts in small areas: implications for studies of environment and health.* , ed. R. Arnold, P. Elliott, J. Wakefield and M. Quinn, 75-8. London : The Stationery Office
24. DIGGLE, P.J., (2000). Overview of statistical methods for disease mapping and its relationship to cluster detection. In *Disease and Exposure Mapping*, ed. P. Elliot, J. Wakefield, N. Best D. Briggs. Oxford: Oxford University Press.
25. CHRISTENSEN, O.F., DIGGLE, P.J. and RIBEIRO, P.J. (2001). Analysing positive-valued spatial data: the transformed Gaussian model. In Monestiez, P., Allard, D. and Froidevaux (eds), *GeoENV III - Geostatistics for environmental applications*. Quantitative Geology and Geostatistics, Kluwer Series, **11**, 287–298.
26. DIGGLE, P.J., RIBEIRO, P.J. and CHRISTENSEN, O. (2003). An introduction to model-based geostatistics. In *Spatial Statistics and Computational Methods. Lecture Notes in Statistics* **173**, ed J Moller, 43–86. New York: Springer.

27. DIGGLE, P., KNORR-HELD, L., ROWLINGSON, B., SU, T., HAWTIN, P. and BRYANT, T. (2003). On-line monitoring of public health surveillance data. In *Monitoring the Health of Populations: Statistical Principles and Methods for Public Health Surveillance*, ed R. Brookmeyer and D.F. Stroup, 233–66. Oxford : Oxford University Press.
28. DIGGLE, P.J. (2004). Spatial statistics in the biomedical sciences: future directions. In *GIS and Spatial Analysis in Veterinary Epidemiology*, ed P A Durr and A G Gatrell, 97–118. Wallingford: CABI.
29. ZHENG, P., DURR, P.A. and DIGGLE, P.J. (2004). Edge-correction for spatial kernel smoothing methods? When is it necessary? In *GISVET 04*, ed. P.A. Durr, S. Wayne Martin, 36–8. Weybridge: Veterinary Laboratories Agency.
30. ZEGER, S.L., DIGGLE, P.J. and LIANG, K.Y. (2005). Biostatistics: the near future. In *Celebrating Statistics*, ed A Davison, Y Dodge, N Wermuth, 167–184. Oxford: Oxford University Press.
31. DIGGLE, P.J. (2007). Spatio-temporal point processes: methods and applications. In *Semstat2004: Statistics of Spatio-Temporal Systems*, ed B Finkenstadt, L Held, V. Isham, 1–45. London: CRC Press.
32. DIGGLE, P.J., EGLIN, S.J. and TROY, J.B. (2006). Modelling the bivariate spatial distribution of amacrine cells. In *Case Studies in Spatial Point Processes*, ed A Baddeley, P. Gregori, J. Mateu, R. Stoica and D. Stoyan, 215–233. New York: Springer.
33. WEBSTER, A., DIGGLE, P.J., CLOUGH, H.E., GREEN, R.B. and FRENCH, N.P. (2006). Strain-typing transmissible spongiform encephalopathies using replicated spatial data. In *Case Studies in Spatial Point Processes*, ed A. Baddeley, P. Gregori, J. Mateu, R.Stoica and D. Stoyan, 197–214. New York: Springer.
34. DIGGLE, P.J. (2008). Point source modelling. In *Encyclopedia of Quantitative Risk Analysis and Assessment*, eds E.L. Melnick and B.S. Everitt. Chichester: Wiley.
35. DIGGLE, P.J., Henderson, R. and Philipson, P. (2008). Random-effects models for joint analysis of repeated-measurement and time-to-event outcomes. In *Longitudinal Data Analysis: A Handbook of Modern Statistical Methods*, eds. G. Fitzmaurice, M. Davidian, G. Verbeke and G. Molenberghs. London: Chapman and Hall/CRC
36. Diggle, P.J. (2009). Historical introduction. In *Handbook of Spatial Statistics*, eds. A Gelfand, P.J. Diggle, M. Fuentes and P. Guttorp. Boca Raton: CRC Press.
37. Diggle, P.J. (2009). Non-parametric methods. In *Handbook of Spatial Statistics*, eds. A Gelfand, P.J. Diggle, M. Fuentes and P. Guttorp. Boca Raton: CRC Press.
38. Diggle, P.J. and Gabriel, E. (2010). Spatio-temporal point processes. In *Handbook of Spatial Statistics*, eds. A Gelfand, P.J. Diggle, M. Fuentes and P. Guttorp, 449–461. Boca Raton: CRC Press.
39. Diggle, P.J. (2010). Spatial point pattern. In *International Encyclopaedia of Statistical Science*, ed M. Lovric. New York: Springer

40. Fanshawe, T.R. and Diggle, P.J. (2013). Adaptive sampling design for spatio-temporal prediction. In *Spatio-temporal Design: Advances in Efficient Data Acquisition*, ed J. Mateu and W.G. Müller, Chichester: Wiley, 249–268.
41. Taylor-Robinson, Peter Diggle, P., Smyth, R. and Whitehead, M. (2015). Health Trajectories in People with Cystic Fibrosis in the UK: Exploring the Effect of Social Deprivation. In *A Life Course Perspective on Health Trajectories and Transitions*, ed. C. Burton-Jeangros, S. Cullati, A. Sacker and D. Blane, 85–110. Cham: Springer.
42. Diggle, P.J. and Giorgi, E. (2017). Preferential sampling of exposure levels. In *Handbook of Environmental Statistics* (to appear). Boca Raton: CRC Press.
43. Diggle, P.J., Giorgi, E., Chipeta, M. and Macfarlane, S. (2018). Keeping track of health outcomes in space and time: an introduction to spatial and spatio-temporal methods. In *The Palgrave Handbook of Global Health Data for Policy*, S. Macfarlane and C. Abouzahr (eds). Palgrave Macmillan.

### Other published material

1. DIGGLE, P.J.(1975). Contribution to Discussion of the paper by Dr Cliff and Dr. Ord. *J. R.Statist. Soc. B*, **37**, 333-4.
2. DIGGLE, P.J. (1976). Note on the Clark and Evans test of spatial randomness. Appendix to *Spatial Analysis in Archaeology*, I. Hodder and C. Orton, 246-8. Cambridge University Press.
3. SEHEULT, A., DIGGLE, P., and EVANS, D.A. (1976). Contribution to Discussion of Professor Barnett’s Paper. *J.R.Statist. Soc. A*, **139**, 351-2
4. DIGGLE, P.J. (1977). Contribution to Discussion of Dr. Ripley’s paper. *J.R.Statist. Soc. B*, **39**, 196-7.
5. DIGGLE, P.J.(1977). Contribution to Discussion of Dr. Mollison’s paper. *J. R. Statist. Soc. B*, **39**, 315.
6. DIGGLE, P.J. (1982). Contribution to Discussion of the paper by Dr. Pocock, Dr Cook and Dr. Shaper. *J.R. Statist.Soc. A*, **145**, 332-3.
7. DIGGLE, P.J (1984). Contribution to Discussion of the paper by Dr. Stern and Dr. Coe. *Statist. Soc. A*, **147**, 27-8.
8. DIGGLE. P.J. (1984). Contribution to Discussion of the paper by Dr. Chatfield, Professor Ehrenberg and Dr. Goodhardt. *J. R. Statist. Soc. A*, **147**, 649.
9. DIGGLE, P.J. (1985). Contribution to Discussion of Dr. Silverman’s paper. *J. R. Statist. Soc B*, **47**, 28-9.
10. DIGGLE, P.J. and WESTCOTT, M. (1985). Contribution to Discussion of the paper by Dr. Lawrance and Prof. Lewis. *J. R. Statist. Soc. B*, **47**, 192-3.
11. DIGGLE, P.J and GATES, D.J. (1985). Comment on ”Regularity and structure of the spatial pattern of blue cones of macaque retina”, by Shapiro, Stein and de Monastero. *J. Amer.Statist.Assn.*, **80**, 813.

12. DIGGLE, P.J. and FISHER, N.I. (1989). Letter to the editor. *Computers and Geosciences*.
13. DIGGLE, P.J. (1989). Invited contribution to discussion meeting on cancer near nuclear installations. *J. R. Statist. Soc. A*, **152**,
14. DIGGLE, P.J. (1990). Contribution to Discussion of the paper by Cuzick and Edwards. *J. R. Statist. Soc. B*, **52**, 101.
15. DIGGLE, P.J. (1991). Contribution to Discussion of the paper by Ramsey and Dalzell. *J.R. Statist. Soc. B*, **53**, 563-4.
16. CHETWYND, A.G. and DIGGLE, P.J. (1992). Contribution to Discussion Meeting on the Future of Honours Degree Courses in Mathematics and Statistics. *J. R. Statist. Soc. A*, **155**, 209-10.
17. DIGGLE, P.J. (1992). Contribution to Discussion of the paper by Liang, Zeger and Qaqish. *J.R. Statist. Soc. B*, **54**, 28-9.
18. DIGGLE, P.J. (1992). Contribution to Discussion of the paper by Geyer and Thompson. *J.R.Statist. Soc. B*, **54**, 689.
19. DIGGLE, P.J. (1992). Contribution to Discussion of the paper by Thunhurst and Macfarlane. *J. R. Statist. Soc. A*, **155**, 343-4.
20. DIGGLE, P.J. (1993). Contribution to the Discussion on the Gibbs sampler and other Markov chain Monte Carlo methods. *J.R. Statist. Soc. B*, **55**, 67-8.
21. DIGGLE, P.J. (1993). Letter to the editor: on informative and random dropouts in longitudinal studies. *Biometrics*, **49**, 947-9.
22. DIGGLE, P.J. (1993). Contribution to Discussion of the paper by Vardi and Lee. *J. R. Statist. Soc. B*, **55**, 603-4.
23. DIGGLE, P.J. (1994). Contribution to Discussion of the paper by Royston and Altman. *Appl. Statist.*, **43**, 457.
24. DIGGLE, P.J. (1994). Letter to the editor: estimation with missing data (reply). *Biometrics*, **50**, 580.
25. DIGGLE, P.J. (1997). Contribution to Discussion of the paper by Copas and Li. *J. R. Statist. Soc. B*, **59**, 86.
26. DIGGLE, P.J. and SMITH, D.M. (1997). Comment on the paper by Sheiner, Beale and Dunne. *J. Amer. Statist. Assn.*, **92**, 1251-2.
27. DIGGLE, P.J. and MORTON-JONES, A.J. (1998). Letter in response to article by Dickenson et al. *Journal of Epidemiology and Community Health*, **52**, 340.
28. DIGGLE, P.J. (1999). Contribution to Discussion of the paper by Besag and Higdon. *Journal of the Royal Statistical Society B*, **61**, 720-1.
29. DIGGLE, P.J. (2001). Contribution to Discussion of the paper by Kennedy and O'Hagan. *Journal of the Royal Statistical Society B* **63**, 454.

30. DIGGLE, P.J. (2001). Discussion of the paper by Adrian Baddeley and Rolf Turner. *Australian and New Zealand Journal of Statistics*, **42**, 316–8.
31. ZEGER, S.L. and DIGGLE, P.J. (2001). Correction: exposure measurement error in time-series air pollution studies. *Environmental Health Perspectives*, A **109**, 516–7.
32. Kelsall J.E., Diggle P.J. (2002). Erratum: Spatial variation in risk of disease: A nonparametric binary regression approach. *Applied Statistics*, **51**, 373.
33. BRIX, A. and DIGGLE, P.J. (2003). Corrigendum: Spatiotemporal prediction for log-Gaussian Cox processes. *Journal of the Royal Statistical Society*, B **65**, 946.
34. DIGGLE, P.J. (2005). Proposal of the vote of thanks for the paper by Copas and Eguchi. *Journal of the Royal Statistical Society B*, **67**, 495–6.
35. DIGGLE, P.J. (2005). Contribution to Discussion of the paper by Baddeley, Turner, Moller and Hazelton. *Journal of the Royal Statistical Society B*, **67**, 658.
36. DIGGLE, P.J. (2007). Contribution to Discussion of the paper by Smith and Staetsky. *Journal of the Royal Statistical Society A*, **170**, 619.
37. DIGGLE, P.J. (2008). Seconding of the vote of thanks for the paper by McCullagh. *Journal of the Royal Statistical Society*, B **70**, 666–667.
38. Diggle, P.J. (2009). Contribution to Discussion of the paper by Rue, Martino and Chopin. *Journal of the Royal Statistical Society*, B **71**, 357
39. GREEN, G. and DIGGLE, P.J. (2009). Contribution to Discussion of the paper by Benjamini. *Journal of the Royal Statistical Society*, B (to appear)
40. Diggle, P.J. and Zeger, S.L. (2010). Editorial: Reproducible Research. *Biostatistics*, **11**, 375.
41. Baggerly, K., Coombes, K., Diggle, P., Goodman, S., Irizarry, R., Quackenbush, J. and Tibshirani, R. (2010). Disclose all data in publications. *Nature*, **467**, 401.
42. Diggle, P., Henderson, R. and Matthews, J. (2010). *Obituary*. Robert Lewis Plackett, 1920-2009. *Journal of the Royal Statistical Society A* **173**, 265–267.
43. Diggle, P.J. and Green, P.J. (2011). *Obituary*. Julian Besag, FRS, *Journal of the Royal Statistical Society A* **174**, 502–504.
44. Taylor-Robinson, D., Whitehead, M., Diderichsen, F., Olesen, H.V., Pressler, T., Smyth, R.L. and Diggle, P. (2012). Authors' response: understanding the natural progression in %FEV1 decline in patients with cystic fibrosis: a longitudinal study. *Thorax*, doi:10.1136/thoraxjnl-2012-202954
45. Taylor, B.M. and Diggle, P.J. (2013). Corrigendum: Spatio-temporal Prediction for log-Gaussian Cox Processes *Journal of the Royal Statistical Society B* **75**, 601.
46. Chipeta, M.G. and Diggle, P.J. (2015). Comment on “Optimal Design in Geostatistics under Preferential Sampling” by Gustavo da Silva Ferreira and Dani Gamerman. *Bayesian Analysis*, **10**, 737-739.

47. Sánchez-Vizcaíno, F., Rowlingson, B., Radford, A.D., Hale, A., Giorgi, E., O'Brien, S.J., Dawson, S., Gaskell, G., Jones, P.H., Menacere, T., Noble, P.M., Wardeh, M. and Diggle, P. (2015). One health e-surveillance for early detection of gastrointestinal disease outbreaks. *Online Journal of Public Health Informatics*
48. Taylor-Robinson, D.C., Thielen, K., Pressler, T., Olesen, H.V., and Diggle, P.J.(2015). Low socioeconomic status and lung function. *European Respiratory Journal*, **45**, 857–858
49. Diggle, P.J. (2016). Contribution to Discussion of the paper by Nason et al. *Journal of the Royal Statistical Society* (to appear)

## Research Grants

1989, £300 from Lancaster University Research Committee, visit by Prof. S.L. Zeger (Johns Hopkins University).

1990, £762 from ESRC and SERC, visiting fellowship for Prof Nan Laird (Harvard University).

1990-92, £36,540 from ESRC, Spatial Statistical Modelling in GIS Framework (with Tony Gatrell, Robin Flowerdew, Peter Vincent).

1990-93, £63,964 from SERC, Stochastic Modelling and Inference for Collections of Short Time Series (with Granville Tunnicliffe-Wilson).

1991, £12,000 from SERC, for Advanced Students' Short Course : Time Series and Measurements (with Granville Tunnicliffe-Wilson).

1992-1994, £72,710 from ESRC, for Space-Time Statistical Models in GIS (with Tony Gatrell, Robin Flowerdew).

1993, £1,500 from Lancaster University Research Committee, pump-priming for Medical Statistics Unit.

1993-1996, £199,986 from ESRC, for Longitudinal Data Analysis Research Unit (with PI Richard Davies, Brian Francis, Joe Whittaker).

1993-1995, £6,000 from Marshall Islands Nationwide Radiological Study, for Spatial Distribution of Radionuclides on Rongelap Island.

1994-1997, £80,000 from Westlakes Research Institute, for Environmental Epidemiology.

1994-1996, £105,960 from ESRC, for Spatial Statistical Methods in Environmental Epidemiology.

1994-1997, £36,000 from Lancaster University Research Committee, for Medical Statistics Unit.

1995, £6,000 from ESRC and Lancaster University, for Longitudinal Data Analysis Workshop.

1995-1998, £120,000 from North West Regional Health Authority, for Medical Statistics Unit.

1995-1996, £10,000 from North West Regional Health Authority for Health Services Research and Development Network.

1995-1997, £97,525 from ESRC, for Longitudinal Data Analysis Software Development.

1996, £26,559 from Commission of the European Community, for Geostatistical Software Development.

1996-1997, £3,600 from NATO, for Combined Analysis of Longitudinal and Survival Data.

1996-1999, £21,750 from Lancashire and Cumbria Foundation for Medical Research, for Epidemiological Study of factors Affecting Semen Quality.

1996-1999, £36,450 from NHS Executive North West, for Epidemiological Study of Insulin-dependent Diabetes.

1996-1997, £12,000 from Powergen for Time Series Analysis of Respiratory Mortality and Sulphur Emissions.

1997, £14,300 from Glaxo-Wellcome for Analysis of longitudinal Epilepsy Trial.

1997-1999, £69,553 from EPSRC, for Modelling, Recursive Estimation and Prediction of Space-time Data (with PI P. Young).

1997-2000. £142,00 from European Commission, for Statistical and Computational Methods for the Analysis of Spatial Data (with Gareth Roberts).

1997-2000, £102,570 from EPSRC, for Model-based Geostatistics (with S.Coles, J.Tawn).

1997-2000, £158,471 from ESRC, for Analysis of Data from a 15 year Longitudinal Study of 6500 Normal Elderly People (with PI P. Rabbitt).

1997-1999, £13,466 from ESRC, for Training Programme in Longitudinal Data Analysis (with PI R Davies. D Berridge).

1998-2000, £160,581 from ESRC, for Case-control Methodology in Spatial Epidemiology (with A. Chetwynd, P. Elliott, J. Wakefield).

1999-2002, £123,043 from EPSRC, for Quality Control for Continuous Sheet Production (with R Henderson).

1999-2004, £53,500 from MAFF, for Spatial and Temporal Patterns of Foodborne Pathogens.

2000-2003, Euros 144,396 from European Commission for Environmental Time Series Modelling (with PI P. Young).

2000-2002, £451,255 from Food Standards Agency, for Ascertainment and Enhancement of Gastrointestinal Infection, Surveillance and Statistics (AEGISS) (with P Hawtin, T Bryant).

2001-2004, £158,800 from Veterinary Laboratories Agency, for Spatial Statistical Procedures Appropriate for M.Bovis Type Clustering and Multivariate Diffusion Models.

2002-2004, £147,536 from DEFRA, for Development of Novel Statistical Methods for Strain-typing TSE's (with PI N P French).

2002-2003, £30,000 from World Health Organisation, for Spatial Analysis of Loa loa and Lymphatic Filariasis Prevalence in Africa.

2003-2008, \$256,319 from National Institutes of Health (USA) for Statistical Methods for Environmental Epidemiology.

2004-2009, £386,840 from EPSRC, for Spatial and Longitudinal Data Analysis (Senior Fellowship).

2004-2008 £4,504,585 (PI Nigel French, Liverpool) from DEFRA/HEFCE for Veterinary Training and Research Initiative

2005 \$80,000 from WHO, for Calibration and Mapping for Parasitological and RAPLOA estimates of Loa loa Prevalence.



2005-2010 £4,480,000 from HEFCE, for Centre for Excellence in Postgraduate Statistics Teaching (with PI Amanda Chetwynd, Brian Francis).

2005-2009 £433,126 from MRC, for Statistical Methodology for Longitudinal Studies in Clinical Research (with Rob Henderson, PI Paula Williamson).

2005-2008 £924,584 from ESRC, for Developing Statistical Modelling in the Social Sciences (with PI Brian Francis, Charlie Lewis, Keith Soothill).

2007-2008 £60,000 from ROCHE for statistical analysis of longitudinal data on progression of renal disease (NEOERICA)

2007-2010 £600,000 (approx) from MRC for Biomarkers of Parkinson's disease (with PI David Allsop, David Mann, Douglas Mitchell)

2009-2014 \$81,000 from National Institutes of Health (USA) for Natural history of urban leptospirosis (with Albert Ko)

2008-2011 £1,120,437 from ESRC, for Developing Statistical Modelling in the Social Sciences (Phase 2) (with PI Brian Francis, Charlie Lewis, Keith Soothill).

2010-2013 £250,000 (approx) from NIHR (RfPB), for Self-hypnosis for Intraparetum Pain Management (SHIP) Trial (with PI Soo Downe)

2010-2013 £484,968 from MRC, for Statistical Modelling for Real-time Spatial Surveillance and Forecasting (with Barry Rowlingson)

2012-2016 £4,315,380 from MRC, for Sources, Seasonality, Transmission and Control: Campylobacter and Human Behaviour in a Changing Environment (with PI Sarah O'Brien, Malcolm Bennett, Ken Forbes, Rachel Griffith, Tom Humphrey, Paul Hunter, Iain Lake, Daniel Rigby)

2012-2016 £5,185,570 from DH/WT-HICF for Fully integrated, real-time detection, diagnosis and control of community diarrhoeal disease clusters and outbreaks (with PI Sarah J O'Brien and 19 others)

2012-2016 £977,000 from BBSRC for Improving projections for the future of bluetongue and its vectors under scenarios of climate and environmental change (with PI Matthew Baylis)

2012-2016 \$2,500,000 from National Science Foundation (USA) for Ecoepidemiology of leptospirosis in the urban slums of Brazil (with PI Albert Ko, Michael Begon, James Childs, Mittermayer Reis)

2013-2014 £167,000 from ESRC for Social assortativity and contagious processes in modern Britain (with PI Jonathan Read and Matthew Keeling)

2013-2017. £4.7million from MRC for Health eResearch Centre (with PI Iain Buchan and 13 others)

2013-2014. £1.0million from MRC for Farr Institute: e-health research infrastructure

2013-2014 £60,000 from Alder Hey NHS Trust, for Emergency Hospital Admissions Forecasting (with Enitan Carroll)

2014-2019 £150,000 from Stichting Dioraphte (Netherlands), for Community-based malaria control in the perimeter of Majete Wildlife Reserve, Malawi.

2014-2015. \$41,479 from COR-NTD (USA) for Loa loa intensity modelling.

2015-2019. 747,259 from Cystic Fibrosis Trust, for Cystic Fibrosis Epidemiological Network

(with PI Diana Bilton and 12 others).

2016-2021. \$202,911 from NIH (USA) for Spatial Models of Intrahepatic Hepatitis C Virus Propagation in Humans

2016-2019. 311,707 from MNDA for Optimising quality of living throughout the course of Motor Neurone Disease (with PI Carolyn Young)

2017-2021. \$447,364 from Bill and Melinda Gates Foundation for NTD Modelling Consortium: moving towards elimination (with Emanuele Giorgi and Michelle Stanton)

## **Leisure Interests**

Sport: I enjoy social badminton, especially mixed doubles with Mandy, Jono and Hannah

Music: I enjoy listening to most styles, but especially early music, jazz and folk music. I play folk and blues guitar, mostly at home when nobody is listening, and tenor recorder in an informal consort.

Cooking: my inspiration is Nigel Slater.

Classic cars: I enjoy watching historic motor racing, but modern formula one leaves me cold. My indulgence is my 1988 Porsche 924S.

Reading: my desert-island book is Primo Levi's *If This is a Man/The Truce*.

## **Referees**

Prof. Sir David Cox FRS, Nuffield College, Oxford, UK. [david.cox@nuffield.ox.ac.uk](mailto:david.cox@nuffield.ox.ac.uk)

Prof S.L. Zeger, Department of Biostatistics, Johns Hopkins University School of Public Health, Baltimore, USA. [szeger@jhu.edu](mailto:szeger@jhu.edu)

Prof B.W. Silverman FRS, The Home Office, London, UK [bernard.silverman@stats.ox.ac.uk](mailto:bernard.silverman@stats.ox.ac.uk)

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