

Sylvia Richardson

PUBLICATIONS (Journals, letters and discussion, books and chapters)

151. S Geneletti, AG O'Keeffe, LD Sharples, **S Richardson**, and G Baio, G. Bayesian regression discontinuity designs: incorporating clinical knowledge in the causal analysis of primary care data. *Statistics in Medicine*. (2015), doi: 10.1002/sim.6486
150. SK Westbury, E Turro, D Greene, ... & WH Ouwehand, **S Richardson**, AD Mumford & K Freson. Human phenotype ontology annotation and cluster analysis to unravel genetic defects in 707 cases with unexplained bleeding and platelet disorders. *Genome Medicine*, 7(1), 36, (2015)
149. JB Pettit, R Tomer, K Achim, **S Richardson**, L Azizi & J Marioni. Identifying cell types from spatially referenced single-cell expression datasets. *PLoS computational biology*. 2014;**10**(9):e1003824.
148. G Papageorgiou, **S Richardson** & N Best
Bayesian nonparametric models for spatially indexed data of mixed type. *Journal of the Royal Statistical Society – Series B* (2014), in press.
147. L Chen, M Kostadima, J H.A. Martens, G Canu, 56 authors, **S Richardson**, A Cvejic, N Soranzo, W H Ouwehand, H G Stunnenberg, M Frontini & A Rendon.
Transcriptional diversity during lineage commitment of human blood progenitors. *Science* (26 September 2014).
146. J Molitor, I Brown, Q Chan, M Papatomas, S Liverani, NT Molitor, **S Richardson**, L Van Horn, M Daviglus, A Dyer, J Stamler, & P Elliott
Blood pressure differences associated with Optimum Macronutrient Intake Trial for Heart Health (OMNIHEART)-like diet compared with a typical American diet. *Hypertension* (8 September 2014)
145. PJ Newcombe, H Raza Ali, FM Blows, E Provenzano, PD Pharoah, C Caldas & **S Richardson**
Weibull regression with Bayesian variable selection to identify prognostic tumour markers of breast cancer survival. *Statistics Methods in Medical Research*, (4 September 2014).
144. T Truong, B Liquet, F Menegaux, S Plancoulaine, P Laurent-Puig, C Mulot, E. Cordina-Duverger, M Sanchez, P Arveux, P Kerbrat, **S Richardson** & P Guenel
Breast cancer risk, nightwork, and circadian clock gene polymorphisms. *Endocrine-Related Cancer* **21**, 629–638, (2014)
143. DI Hastie, S Liverani & **S Richardson**
Sampling from Dirichlet process mixture models with unknown concentration parameters: mixing issues in large data implementations. *Statistics and Computing*, (May 2014).
DOI 10.1007/s11222-014-9471-3
142. M Chadeau-Hyam, P Tubert-Bitter, C Guihenneuc-Jouyaux, G Campanella, **S Richardson**, R Vermeulen, M De Iorio, S Galea, & P Vineis
Dynamics of the risk of smoking-induced lung cancer: a compartmental hidden Markov models for longitudinal analysis. *Epidemiology*, **25**(1):28-34 (2014)
141. DI Hastie, S Liverani, L Azizi, **S Richardson** and I Stucker

- A semi-parametric approach to estimate risk functions associated with multidimensional exposure profiles: application to smoking and lung cancer. *BMC Medical Research Methodology*, **13**(1):129. (23 Oct 2013)
140. AL Hansell, M Blangiardo, L Fortunato, coll. & **S Richardson**, P Elliott. Aircraft noise and cardiovascular disease near London Heathrow Airport. *British Medical Journal*, **347**, f5432, (2013)
139. L Bottolo, M Chadeau-Hyam, coll. & **S Richardson**. GUESS-ing polygenic associations with multiple phenotypes using a GPU-based Evolutionary Stochastic Search algorithm. *PLoS Genetics*, **9**(8), e1003657, (2013)
138. P Kirk, A Witkover, CRM Bangham, **S Richardson**, AM Lewin, MPH Stumpf Balancing the Robustness and Predictive Performance of Biomarkers, *Journal of Computational Biology*, **20**(10): 1-11 (2013)
137. S Geneletti, N Best, MB Toledano, P Elliott & **S Richardson**. Uncovering selection bias in case-control studies using Bayesian post-stratification. *Statistics in Medicine*, **32**(15), 2555-2570 (2013)
136. G Li, R Haining, **S Richardson** & N Best Evaluating the No Cold Calling zones in Peterborough, England: application of a novel statistical method for evaluating neighbourhood policing policies. *Environment and Planning A*. **45**(8): 2012-2026 (2013)
135. W Astle, M De Iorio, **S Richardson**, D Stephens & T Ebbels. A Bayesian Model of NMR Spectra for the Deconvolution and Quantification of Metabolites in Complex Biological Mixtures. *Journal of the American Statistical Association*. **107**(500), 1259-1271 (2012).
134. L McCandless; **S Richardson**; N Best. Adjustment for Missing Confounders Using External Validation Data and Propensity Scores. *Journal of the American Statistical Association*. 107:40-51 (2012)
133. M Papatomas, J Molitor; C Hoggart; D Hastie; **S Richardson**. Exploring Data From Genetic Association Studies Using Bayesian Variable Selection and the Dirichlet Process: Application to Searching for Gene x Gene Patterns. *Genetic Epidemiology*. **36**:663-674 (2012)
132. S Ancelet; JJ Abellan; VJ Del Rio Vilas; C Birch; **S Richardson**. Bayesian shared spatial-component models to combine and borrow strength across sparse disease surveillance sources. *Biometrical Journal*. 54:385-404 (2012)
131. C Petit, M Blangiardo, **S Richardson**, F Coquet, C Chevrier, S Cordier Association of Environmental Insecticide Exposure and Fetal Growth With a Bayesian Model Including Multiple Exposure Sources: The PELAGIE Mother-Child Cohort. *Am J Epidemiol* 175 (11): 1182-1190 (2012)
130. A Mason, **S Richardson**, I Plewis, and N Best. Strategy for modelling non-random missing data mechanisms in observational studies using Bayesian methods. *Journal of Official Statistics* **28**(2):279-302 (2012)
129. D Ginestet, N Best and **S Richardson**

Classification Loss Function for Parameter Ensembles in Bayesian Hierarchical Models.
Statistics and Probability Letters, **82(4)**: 859-863 (2012).

128. G Li; N Best; AL Hansell; I Ahmed; **S Richardson**.
BaySTDetect: detecting unusual temporal patterns in small area data via Bayesian model choice.

Biostatistics **13 (4)**: 695-710 (2012)

127. A Mason, **S Richardson** and N Best.
Two-pronged Strategy for Using DIC to Compare Selection Models with Non-Ignorable Missing Responses.

Bayesian Analysis, **7(1)**: 109-146 (2012)

126. LC McCandless; P Gustafson; AR Levy; **S Richardson**.
Hierarchical priors for bias parameters in Bayesian sensitivity analysis for unmeasured confounding.

Statistics in Medicine. **31**:383-396 (2012)

125. SJ Clark; M Falchi; B Olsson; P Jacobson; S Cauchi; B Balkau; M Marre; O Lantieri; JC Andersson; M Jernås; TJ Aitman ; **S Richardson**; L Sjöström; HY Wong; LM Carlsson; P Froguel; AJ Walley

Association of sirtuin 1 (SIRT1) gene SNPs and transcript expression levels with severe obesity.

Obesity (Silver Spring). **20**:178-185 (2012)

124. AJ Walley, P Jacobson, M Falchi, L Bottolo, JC Andersson, E. Petretto, A Bonnefond, E Vaillant, C Lecoeur, V Vatin, M Jernas, D Balding, M Petteni, YS Park, T Aitman, **S Richardson**, L Sjostrom, LMS Carlsson and P Froguel.

Differential co-expression analysis of obesity-associated networks in human subcutaneous adipose tissue.

International Journal of Obesity, **36**:137-147 (2012)

123. I Ahmed, AL Hartikainen, MJ Jarvelin, and **S Richardson**.
False Discovery Rate estimation for Stability Selection: Application to Genome-Wide association studies.

Statistical Applications in Genetics and Molecular Biology. **10(1)**, 1544-6115 (2011)

122. L Bottolo; E Petretto; S Blankenberg; F Cambien; SA Cook; L Tiret; **S Richardson**.
Bayesian detection of expression quantitative trait loci hot spots.

Genetics. **189**:1449-1459 (2011)

121. J Molitor; JG Su ; NT Molitor; VG Rubio; **S Richardson**; D Hastie; R Morello-Frosch; M Jerrett.

Identifying vulnerable populations through an examination of the association between multipollutant profiles and poverty.

Environ Sci Technol. **45**:7754-7760 (2011)

120. PD Kirk, A Witkover, A Courtney, AM Lewin, R Wait, MP Stumpf, **S Richardson**, GP Taylor, CR Bangham.

Plasma proteome analysis in HTLV-1-associated myelopathy/tropical spastic paraparesis.

Retrovirology. 2011 Oct 12; 8:81.

119. AA Brown; **S. Richardson**; J. Whittaker.

Application of the Lasso to Expression Quantitative Trait Loci Mapping.

Statistical Applications in Genetics and Molecular Biology, **10**.(2011)

118. L. Bottolo, M. Chadeau-Hyam, D.I. Hastie, S.R. Langley, E. Petretto, L. Tiret, D.Tregouet and **S. Richardson**.
ESS++: a C++ objected-oriented algorithm for Bayesian stochastic search model exploration,
Bioinformatics , **27**: 587-588 (2011).
117. E. Turro, S-Y. Su , A. Goncalves , L.J.M. Coin, **S. Richardson**, A. Lewin.
Haplotype and isoform specic expression estimation using multi-mapping RNA-seq reads.
Genome Biology, **12**:R13 , (2011).
116. L Fortunato; JJ Abellan; L Beale; S LeFevre; **S Richardson**.
Spatio-temporal patterns of bladder cancer incidence in Utah (1973-2004) and their
association with the presence of toxic release inventory sites.
Int J Health Geogr. 10:16, (2011)
115. M. Blangiardo, **S. Richardson**, A. Hansell and J. Gulliver
A Bayesian analysis of the impact of air pollution episodes on cardio-respiratory
hospital admissions in the Greater London area,
Statistical Methods in Medical Research. **20**:69-80 (2011)
114. M. Blangiardo, A. Hansell and **S. Richardson**
A Bayesian model of time activity data to investigate health effect
of air pollution in time series studies.
Atmospheric Environment **45(2)**, 379-386 (2011)
113. VJ Del Rio Vilas VJ, S Ancelet S, J.J Abellan JJ, C.P. Birch CP and **S. Richardson**
A Bayesian hierarchical analysis to compare classical and atypical scrapie surveillance data;
Wales 2002-2006.
Prev Vet Med **98**: 29-36 (2011)
112. M. Papathomas, J. Molitor, **S. Richardson**, E. Riboli and P. Vineis
Examining the joint effect of multiple risk factors using exposure risk profiles: lung cancer in
non smokers.
Environmental Health Perspectives. **119**: 84-91 (2011)
111. L. Bottolo and **S. Richardson**. (2010)
Evolutionary Stochastic Search for Bayesian model exploration.
Bayesian Analysis, **5(3)**, 583--618.
110. M. Blangiardo, A. Cassese and **S. Richardson**
Sdef: an R package to synthesize lists of significant features in related experiments. *BMC
Bioinformatics*. **11**:270doi:10.1186/1471-2105-11-270, (2010)
109. E. Petretto, L. Bottolo, S.R. Langley, M. Heining, C. McDermott-Roe, R. Sarwar, M.
Pravenec, N. Hübner, T. J. Aitman, S. A. Cook, **S. Richardson**.
New Insights into the Genetic Control of Gene Expression using a Bayesian Multi-tissue
Approach.
PLoS Comput Biol **6(4)**: e1000737, (2010)
108. R. Haining, G.Q. Li, R. Maheswaran, M. Blangiardo, J. Law, **S. Richardson** & N. Best
Inference from ecological models: estimating the relative risk of stroke from air pollution
exposure using small area data.
Spatial and Spatio-temporal Epidemiology,**1**:123-131, (2010)

107. J. T. Molitor, M. Papathomas, M. Jerrett and **S. Richardson**.
Bayesian Profile Regression with an Application to the National Survey of Children's Health,
Biostatistics **11**, 484-498, (2010)
106. A.J. W. Paige, M. Zucknick, S. Janczar, J. Paul, C. A. Mein, K. J. Taylor, M. Stewart,
C. Gourley, **S. Richardson**, T. Perren, T. S. Ganesan, J F. Smyth, R. Brown, F. Balkwill, and
H. Gabra
WWOX Tumour Suppressor Gene Polymorphisms and Ovarian Cancer Pathology and
Prognosis,
European Journal of Cancer,**46(4)**: 818-25 (2010).
105. P Gustafson, L.C Mc Candless, A.R. Levy and **S. Richardson**
Simplified Bayesian sensitivity analysis for mismeasured and unobserved
confounders,
Biometrics, **66(4)**, 1129-1137, (2010).
104. E Turro; A Lewin; A Rose; MJ Dallman; **S Richardson**.
MMBGX: a method for estimating expression at the isoform level and detecting differential
splicing using whole-transcript Affymetrix arrays.
Nucleic Acids Res. **38**:e4-e4 (2010)
103. P. Broet, P. Tan, M Alifano, S. Camilleri-Broet, and **S Richardson**
Finding exclusively deleted or amplified genomic areas in lung adenocarcinomas using a
novel chromosomal pattern analysis.
BMC Medical Genomics, **2**:43 (2009).
102. **S. Richardson** and C. Guihenneuc-Jouyaux
Impact of Cliff and Ord (1969, 1981) on Spatial Epidemiology
Geographical Analysis, **41(4)**: 444-451 (2009).
101. S Gorja; C Daniau; P de Crouy-Chanel; P Empereur-Bissonnet; P Fabre; M Colonna;
C Duboudin; JF Viel; **S Richardson**.
Risk of cancer in the vicinity of municipal solid waste incinerators: importance of using a
flexible modelling strategy.
Int J Health Geographics. **8**, (2009)
100. O Ratmann; C Andrieu; C Wiuf; **S Richardson**.
Model criticism based on likelihood-free inference, with an application to protein network
evolution.
Proc Natl Acad Sci U S A. 106:10576-10581, (2009)
99. NT Molitor; N Best; C Jackson; **S Richardson**.
Using Bayesian graphical models to model biases in observational studies and to combine
multiple sources of data: application to low birth weight and water disinfection by-products.
Journal of the Royal Statistical Society, Series A: Statistics In Society, 172:615-637 (2009).
98. S. Geneletti, N. Best and **S. Richardson**. (2009)
Adjusting for selection bias in retrospective case control studies.
Biostatistics, **10(1)**:17-31.
97. P. Elliott, **S. Richardson**, J. J. Abellan, A. Thomson, D. Briggs, C. de Hoogh, L. Jarup.
(2009).
Geographic density of landfill sites and risk of congenital anomalies in England.
Occupational and Environmental Medicine: **66**:81-89.

96. C. Jackson, N. Best and **S. Richardson**. (2009)
Bayesian graphical models for regression on multiple datasets with different variables
Biostatistics; **10**(2):335-351.
95. M Blangiardo and **S Richardson**. (2008)
A Bayesian calibration model for combining different pre-processing methods in Affymetrix chips.
BMC Bioinformatics, **9**:512.
- 94 C. Jackson, **S. Richardson** and N. Best. (2008)
Studying place effects on health by synthesising individual and area-level outcomes
Social Science & Medicine, **67**: 1995-2006.
93. J.J. Abellan, **S. Richardson** and N. Best. (2008).
Use of Space-time Models to Investigate the Stability of Patterns of Disease
Environ Health Perspect. **116**:1111–1119.
92. M. Zucknick, **S. Richardson** and E. A. Stronach. (2008).
Comparing the Characteristics of Gene Expression Profiles Derived by Univariate and Multivariate Classification Methods,
Statistical Applications in Genetics and Molecular Biology, **7 (1)**, Article 7.
91. C. Jackson, N. Best and S. Richardson. (2008).
Hierarchical related regression for combining aggregate and individual data in studies of socio-economic disease risk factors.
Journal of the Royal Statistical Society, Series A: Statistics In Society, **171(1)**:1-20.
90. Lewin, N. Bochkina and **S. Richardson**. (2007)
Fully Bayesian Mixture Model for Differential Gene Expression: Simulations and Model Checks,
Statistical Applications in Genetics and Molecular Biology, **6(1)**, Article 36.
89. L. Jarup, S. Morris, **S. Richardson**, D. Briggs, N. Cobley, C. de Hoogh, K. Gorog, P. Elliott. (2007)
Down syndrome in births near landfill sites.
Prenatal Diagnosis, **27**:1191-1196.
88. JJ. Abellan, D. Fecht, N. Best, **S. Richardson**, DJ. Briggs. (2007).
Bayesian analysis of the multivariate geographical distribution of the socio-economic environment in England.
Environmetrics,**18**(7): 745-758.
87. O. Ratmann, O. Jorgensen, T. Hinkley, M. P.H. Stumpf, **S. Richardson**, C. Wiuf. (2007).
Using Likelihood-Free Inference to Compare Evolutionary Dynamics of the Protein Networks of *H.pylori* and *P.falciparum*.
PLoS Computational Biology, **3**(11): e230.
86. E Turro, N. Bochkina, A-M K Hein and **S. Richardson**. (2007).
BGX: a Bioconductor package for the Bayesian integrated analysis of Affymetrix GeneChips
BMC Bioinformatics **8**:439.
85. S. J. Barton, **S. Richardson**, D. N. Perkins, I. Bellahn, T. N. Bryant, J. C. Whittaker. (2007).

Using Statistical Models to Identify Factors that have a Role in Defining the Abundance of Ions Produced by Tandem MS.

Analytical Chemistry, **79(15)**:5601-5607.

84. M. Blangiardo and **S. Richardson**. (2007)

Statistical tools for synthesizing lists of differentially expressed features in related experiments.

Genome Biology, **8**, R54.

83. N. Bochkina and **S. Richardson**. (2007)

Tail posterior probability for inference in pairwise and multiclass gene expression data.

Biometrics, **63** (4), 1117–1125.

82. P.O. Schischmanoff, J-M. Naccache, A. Carrere, **S. Richardson** , M. Kambouchner, M. Raphae, D. Valeyre, R. Fagard. (2006)

Progressive pulmonary Sarcoidosis is associated with over-expression of TYK2 and p21Waf1/Cip1.

Sarcoidosis Vasculitis and Diffuse Lung Diseases; **23(2)**:101-7.

81. **S. Richardson**, J-J. Abellan and N. Best. (2006)

Bayesian spatio-temporal analysis of joint patterns of male and female lung cancer risks in Yorkshire (UK).

Statistical Methods in Medical Research, **15**: 385-407.

80. C. Jackson, N. Best and **S. Richardson**. (2006)

Improving ecological inference using individual-level data.

Statistics in Medicine, **25**: 2136-2159.

79. S. Parry, D. Hadaschik, C. Blancher, M.K. Kumaran, N. Bochkina, H.R. Morris, **S. Richardson**, T.J. Aitman, D. Gauguier, K. Siddle et al. (2006)

Glycomics investigation into insulin action.

Biochim Biophys Acta, **1760**: 652-668.

78. AM. Hein and S Richardson. (2006)

A powerful method for detecting differentially expressed genes from GenChip arrays that does not require replicates.

BMC Bioinformatics **7**: 353.

77. P. Broët and **S. Richardson**. (2006)

Detection of gene copy number changes in CGH microarrays using a spatially correlated mixture model.

Bioinformatics, **22**: 911-918.

76. A. Lewin, **S Richardson**, C Marshall, A. Glazier and T Aitman. , (2006)

Bayesian modelling of differential gene expression.

Biometrics, **62**:1-9.

75. AM. Hein, **S Richardson**, H Causton, G Ambler and PJ Green. (2005).

BGX: a fully Bayesian gene expression index for Affymetrix GeneChip data.

Biostatistics, **6(3)**: 349-373.

74. N. Best, **S. Richardson** and A.Thompson. (2005).

A comparison of Bayesian spatial models for disease mapping.

Statistical Methods in Medical Research, **14**:35-59.

73. J. Bennett; MP Little, **S. Richardson**. (2004).

- Flexible dose-response models for Japanese atomic bomb survivor data: Bayesian estimation and prediction of cancer risk.
Radiat Environ Biophys, **43**(4) :233-45.
72. AL. Hansell, KA Lam, **S. Richardson**, G. Visick G and JB Soriano. (2004).
Medical event profiling of COPD patients.
Pharmacoepidemiology and Drug safety, **13** (8):547-55.
71. P. Broët, A. Lewin, **S. Richardson**, and C. Dalmasso. (2004).
A mixture model-based strategy for selecting sets of genes in multiclass response microarray experiments.
Bioinformatics, **20**(16): 2562-71.
70. S. Seaman and **S. Richardson** (2004).
Equivalence of prospective and retrospective models in the Bayesian analysis of case-control studies.
Biometrika, **91**: 15-25.
69. N. Cressie, **S. Richardson** and I. Jaussent (2004).
Ecological bias: use of maximum- entropy approximations.
Australian and New Zealand Journal of Statistics, **46**: 233-255.
68. **S. Richardson**, A. Thomson, N. Best and P. Elliott (2004).
Interpreting posterior relative risk estimates in disease mapping studies.
Environmental Health Perspectives, **112**: 1016-25.
67. L. Knorr-Held L and **S. Richardson** (2003).
A hierarchical model for space-time surveillance data on meningococcal disease incidence.
Journal of the Royal Statistical Society, Series C (Applied Statistics), **52**: 169-183.
66. **S. Richardson** and N. Best. (2003)
Bayesian hierarchical models in ecological studies of health-environment effects.
Environmetrics, **14**: 129-147.
- 65 P.J. Green and **S. Richardson** (2002).
Hidden Markov models and disease mapping.
Journal of the American Statistical Association, **97**: 1055-1070.
64. **S. Richardson**; V. Viallefont; PJ. Green; (2002)
Bayesian analysis of Poisson mixtures
J Nonparametric Stats, **14**,181-202.
63. P. Broët, **S. Richardson** and F. Radvanyi (2002).
Bayesian hierarchical model for identifying changes in gene expression from microarray experiments.
Journal of Computational Biology, **9**: 671-683.
62. **S. Richardson**, L. Leblond , I. Jaussent and P.J. Green. (2002).
Mixture models in measurement error problems, with reference to epidemiological studies.
Journal of the Royal Statistical Society, Series A, **165**: 549-566.
61. L. Jarup; D. Briggs; C. de Hoogh; S. Morris; C. Hurt; A. Lewin; I. Maitland; **S. Richardson**; J. Wakefield; P. Elliott. (2002).
Cancer risks in populations living near landfill sites in Great Britain.
British Journal of Cancer **86**(11) : 1732-6.

60. S.R. Seaman, **S. Richardson**, I. Stücker and S. Benhamou. (2002).
A Bayesian partition model for case-control studies on highly polymorphic candidate genes.
Genetic Epidemiology, **22**: 356-368.
59. P. Elliott; D. Briggs; S. Morris; C.de Hoogh; C. Hurt; TK Jensen; I. Maitland; **S. Richardson**; Wakefield J; Jarup L. (2001)
Risk of adverse birth outcomes in populations living near landfill sites.
British Medical Journal, **323** (7309), 363-8.
58. S.R. Seaman and **S. Richardson** (2001)
Bayesian analysis of case-control studies with categorical covariates.
Biometrika, **88**: 1073-1088.
57. V Viallefont, AE Raftery and S Richardson. (2001)
Variable selection and Bayesian model averaging in case-control studies.
Statistics in Medicine, **20**: 3215-3230,
56. P.J. Green, **S. Richardson**. (2001)
Modelling heterogeneity with and without the Dirichlet process.
Scandinavian Journal of Statistics, **28**, 355-375,
55. M.P.Little, I. Deltour, **S. Richardson**. (2000)
Projection of cancer risks from the Japanese atomic bomb survivors to the England and Wales population taking into account uncertainty in risk parameters.
Radiat Environ Biophys, **39**, 241-252,
54. **S. Richardson**. (2000)
Problèmes méthodologiques dans les études écologiques santé-environnement.
Les Comptes-Rendus de l'Académie des Sciences (CRAS) Paris, Sciences de la Vie, **323**, 1-6.
53. S. Cordier, C. Monfort, L. Miossec, **S. Richardson**, C. Belin. (2000)
Ecological analysis of digestive cancer mortality related to contamination by diarrhetic shellfish poisoning toxins along the coasts of France,
Environmental Research, Section A, **84**, 145-150.
52. C. Pascutto, J. Wakefield, N. Best, L. Bernardinelli, P. Elliott, **S. Richardson**, A. Staines. (2000).
Statistical issues in the analysis of disease mapping data.
Statistics in Medicine, **19**, 2493-2515.
51. V. Lasserre, C. Guihenneuc-Jouyaux, **S. Richardson**. (2000).
Biases in ecological studies : utility of including within-area distribution of confounders.
Statistics in Medicine, **19**, 45-59.
50. C. Guihenneuc-Jouyaux, **S. Richardson**, I.M. Longini.
Modelling markers of disease progression by a hidden Markov process : application to characterising CD4 cells decline.
Biometrics, **56**, 733-74.
49. I Deltour, **S. Richardson**, JY Le Hesran. (1999).
Stochastic algorithms for Markov models estimation with intermittent missing data.
Biometrics, **55**, 565-573.

48. C. Chouquet, **S. Richardson**, M. Burgard, S. Blanche, M.J. Mayaux, C. Rouzioux, D. Costagliola. (1999).
Timing of Human Immunodeficiency Virus Type 1 (HIV-1) transmission from mother to child ; Bayesian estimation using a mixture.
Statistics in Medicine, **18**, 815-833.
47. L. Watier, **S. Richardson**, D. Hémon. (1997)
Accounting for pregnancy dependence in epidemiological studies of reproductive outcomes.
Epidemiology **8**, 629-636.
46. Ruffié, N. Delasnerie-Lauprêtre, J.P. Brandel, I. Jausent, D. Dormont, J.L. Laplanche, J.J. Hauw, **S. Richardson**, A. Alpérovitch. (1997).
Incidence de la maladie de Creutzfeldt-Jakob en France, 1992-1995.
Rev. Epidém. et Santé Publ., **45**, 448-453.
45. Garcia, J. Maccario, **S. Richardson**. (1997).
Modelling of the annual risk of tuberculosis infection.
International Journal of Epidemiology **26**(1), 190-203
44. D. Lévy-Bruhl, J. Maccario, **S. Richardson**, N. Guérin. (1997).
Modélisation de la rougeole en France et conséquences pour l'âge d'administration de la seconde vaccination rougeole-oreillons-rubéole.
Bulletin Epidémiologique Hebdomadaire **29**, 133-136.
43. D. Thomas, **S. Richardson**, J. Gauderman and J. Pitkaniemi. (1997).
A Bayesian approach to multipoint mapping in nuclear families.
Genetic Epidemiology, **14**, 903-908.
42. **S. Richardson**, L. Leblond. (1997).
Some comments on misspecification of priors in Bayesian modelling of measurement error problems.
Statistics in Medicine **16**, 203-213.
41. **S. Richardson**, P.J. Green. (1997).
On Bayesian analysis of mixtures with an unknown number of components (with discussion).
Journal of the Royal Statistical Society, Series B, **59**, 731-792.
40. **S. Richardson**. (1996).
Développements récents de la biostatistique.
Revue d'Epidémiologie et de Santé Publique, **44**, 482-493.
39. **S. Richardson**, C. Monfort, M. Green, G. Draper, C. Muirhead. (1995).
Spatial variation of natural radiation and childhood leukaemia incidence in the United-Kingdom.
Statistics in Medicine **14**, 2487-2501.
38. L Watier, **S Richardson**. (1995).
Modelling of an epidemiological time series by a threshold autoregressive model (SETAR).
The Statistician **44**, 3, 353-364
37. Richard, **S. Richardson**, J. Maccario. (1993).
A 3-state Markov model for plasmodium falciparum parasitaemia.
Mathematical Biosciences, **117**, 283-300.
36. M. Ferraroni, M. Gerber, A. Decarli, **S. Richardson**, et al. (1993).
HDL-cholesterol and breast cancer.

International Journal of Epidemiology **22**, 772-780.

35. J.F. Viel, **S. Richardson**, P. Danel, P. Boutard, P. Malet, P. Barrelier, O. Reman, A. Carre. (1993)

Childhood leukemia incidence near La Hague nuclear waste reprocessing facility.
Cancer Causes and Control, **4**, 341-343.

34. L. Watier, **S. Richardson**, B. Hubert. (1993).

Salmonella enteritidis in France and in the U.S. : characterisation by a deterministic model.

American Journal of Public Health **83**, 1694-1700.

33. J.F. Viel, **S. Richardson**. (1993).

Lymphoma and leukemia among French farmers in relation to pesticide exposure.

Social Sciences and Medicine **37** (6), 771-777.

32. **S. Richardson**, W.R. Gilks. (1993).

A conditional independence approach to covariate measurement error.

Statistics in Medicine, **12**, 1703-1722.

31. **S. Richardson**, W.R. Gilks. (1993).

A Bayesian approach to measurement error problems in epidemiology using conditional independence models.

American Journal of Epidemiology, **138**, 430-442.

30. P. Diggle, **S. Richardson**. (1993).

Epidemiological studies of industrial pollutants : an introduction.

International Statistical Review, **61**, 203-206.

29. Hubert, L. Watier, P. Garnerin, **S. Richardson**. (1992).

Meningococcal disease and influenza-like syndrome : a new approach to an old question.

The Journal of Infectious Diseases, **166**, 542-545.

28. **S. Richardson**, R. Zittoun, S. Bastuji-Garin, V. Lasserre, C. Guihenneuc, M. Cadiou, F. Viguié, I. Laffont-Faust. (1992).

Occupational risk factors for acute leukaemia : a case-control study.

International Journal of Epidemiology, **21**(6), 1063-1073.

27. **S. Richardson**. (1992).

Modélisation statistique des variations géographiques en épidémiologie.

Revue d'Epidémiologie et de Santé Publique **40**, 33-45.

26. W.R Gilks, **S. Richardson**. (1992).

Analysis of disease risks using ancillary risk factors with application to job-exposure matrices.

Statistics in Medicine, **11**, 1443-1463.

25. Mollié, **S. Richardson**. (1991).

Empirical Bayes estimates of cancer mortality rates using spatial models.

Statistics in Medicine **10**, 95-112.

24. L. Watier, **S. Richardson**, B. Hubert. (1991).

A time series construction of an alert threshold with application to Salmonella bovismorbificans in France.

Statistics in Medicine, **10**, 1493-1509.

23. C. Ségala, M. Gerber, **S. Richardson**. (1991).
The pattern of risk factors for breast cancer in a Southern France population. Interest for a stratified analysis by age at diagnosis.
British Journal of Cancer ,**64**, 919-925
22. F. Cavallo, M. Gerber, **S. Richardson**, et al. (1991).
Zinc and Copper in breast cancer. A joint study in Northern Italy and Southern France.
Cancer **67**(3,) 738-745.
21. M. Gerber, **S. Richardson**, R. Salkeld, P. Chappuis. (1991).
Anti-oxidants in breast cancer female patients.
Cancer Investigation **9**(4), 421-428.
20. **S. Richardson**, M. Gerber, S. Cénée. (1991).
The role of fat, animal protein and some vitamin consumption in breast cancer : a case-control study in Southern France.
International Journal of Cancer **48**, 1-9.
19. J.F. Viel, **S. Richardson** (1991).
Adult leukemia and farm practices : an alternative approach for assessing geographical pesticide exposure.
Social Science and Medicine **32** (9), 1067-1073.
18. **S. Richardson**, C. Guihenneuc, V. Lasserre. (1991).
Spatial linear models with autocorrelated error structure.
The Statistician **41**,539-557
17. S. Bastuji-Garin, **S. Richardson**, R. Zittoun. (1990).
Acute leukaemia in workers exposed to electromagnetic fields.
European Journal of Cancer. **26**, 11/12, 1119-1120
16. J.F. Viel, **S. Richardson** (1990).
Childhood leukemia around the French nuclear waste reprocessing plant (La Hague). *British Medical Journal*, **300**, 580-581.
15. M. Gerber, **S. Richardson**, F. Cavallo, E. Marubini, P. Crastes de Paulet, A. Crastes de Paulet, H. Pujol. (1990).
The role of diet history and biologic assays in the study of diet and breast cancer.
Tumori, **76**, 321-330
14. **S. Richardson** (1990).
A method for testing the significance of geographical correlations with application to industrial lung cancer in France.
Statistics in Medicine **9**, 515-528.
13. P. Clifford, S.T. Richardson, D. Hémon.(1989).
Assessing the significance of the correlation between two spatial processes.
Biometrics **45**(1), 123-134.
12. M. Gerber, **S. Richardson**, P.Crastes de Paulet, H. Pujol, A. Crastes de Paulet. (1989).
Relationship between vitamin E and poly-unsaturated fatty acids in breast cancer. Nutritional and metabolic aspects.
Cancer **64**, 2347-2353.
11. **S.T. Richardson**, I. De Vincenzi, M. Gerber, H. Pujol. (1989).
Alcohol consumption in a case-control study of breast cancer in Southern France.

International Journal of Cancer **44**(1), 84-89.

10 F. Derriennic, **S.T. Richardson**, A. Mollié, J. Lellouch. (1989).
Short term effects of SO₂ pollution of mortality in two French cities.
International Journal of Epidemiology **18**, 186-197.

9. M. Gerber, F. Cavallo, E. Marubini, **S.T. Richardson**, A. Barbieri, E. Capitelli, A. Costa, A. Crastes de Paulet, P. Crastes de Paulet, A. Decarli, U. Pastorino and H. Pujol. (1988).
Liposoluble vitamins and lipid parameters in breast cancer. A joint study in northern Italy and Southern France.
International J. of Cancer, **42**, 489-494.

8. **S.T. Richardson**, A. Hirsch, P. Ruffié, M. Bickel. (1987).
Relationship between tuberculous scar and carcinomas of the lung.
Europ. J. Radiol. **7**, 163-164.

7. **S.T. Richardson**, I. Stücker, D. Hémon; (1987).
Comparison of relative risks obtained in ecological and individual studies : some methodological considerations.
Int. J. of Epidemiol. **16**(1), 111-119

6. I. Stücker, **S.T. Richardson**, D. Hémon. (1984).
Contraceptifs oraux et mortalité cardiovasculaire.
Rev. Epidemiol. et de Santé Publ. **34**, 16-24

5. X. Guyon, **S.T. Richardson**. (1984).
Vitesse de convergence du théorème de la limite centrale pour des champs faiblement dépendants.
Z. Wahrscheinlichkeitstheorie verw. Gebiete **66**, 297-314.

4. **S.T. Richardson**, D. Hémon. (1982).
Autocorrélation spatiale : ses conséquences sur la corrélation empirique de deux processus spatiaux.
Revue de Statistique Appliquée **30**, 41-51.

3. **S.T. Richardson**, D. Hémon. (1981).
On the variance of the sample correlation between two independent lattice processes.
J. Appl. Prob. **18**, 943-948.

2. **S.T. Richardson**. (1981).
Stopping times for measure-preserving transformations : some approximation results
Proceedings of the London Mathematical Society, **43**, 273-294

1. **S.T. Richardson**, K.M. Wilkinson (1979)
Stopping time transformations and towers.
Z. Wahrscheinlichkeitstheorie verw. Gebiete, **48**, 259-284

Letters and Discussions

S Richardson

Vote of thanks (read paper by Meinhausen and Bühlmann)
RSS Meeting, February 2010. *Journal of the Royal Statistical Society, Series B*, **72**, 448-452, (2010).

S Richardson, A Frigessi Contribution to the Discussion of Rue, Martino and Chopin.
Journal of the Royal Statistical Society B, 2009 *in press*

S Richardson and L Bottolo Contribution to the Discussion of Fan and Lv. *Journal of the Royal Statistical Society B*, **70** (2008)

S Richardson and A Lewin Contribution to the discussion of the paper by Handcock, Raftery and Tantrum. *Journal of the Royal Statistical Society A*, 170: (2007).

S Richardson

Discussion of the papers by N Keiding and N Wermuth. *International Statistics Review*, **73**, 263-264 (2005)

S Richardson Contribution to the Discussion of Wakefield. *Journal of the Royal Statistical Society A*, **167**: 430-431, (2004)

S Richardson and C Marshall

Contribution to the Discussion of the meeting on 'Statistical modelling and analysis of genetic data'. *Journal of the Royal Statistical Society B*. **64**: 748 (2002)

S Richardson

Contribution to the discussion of Dominici et al. *Journal of the Royal Statistical Society A* **163**: 288, (2000)

S. Richardson.

Invited discussion of the paper by Wakefield and Morris. " Spatial Dependence and Errors in Variables in Environmental Epidemiology ". *Bayesian Statistics 6*, J.M. Bernardo, J.O. Berger, A.P. David and A.F.M. Smith (eds), Oxford University Press, 675 –677, (1999).

S. Richardson.

Vote of thanks (read paper by Walker, Damien, Laud and Smith)
RSS Meeting, November 1998. *Journal of the Royal Statistical Society, Series B*, **61**, 513-516, (1999).

S. Richardson, P.J. Green.

Contribution to the discussion of Diggle, Tawn and Moyeed. *Applied Statistics*, **47** : 341 (1998).

I. Deltour, **S. Richardson.**

Contribution to the discussion on the papers by Forster and Smith and Clayton et al. *Journal of the Royal Statistical Society : Series B*, **60** : 93 (1998).

L. Watier, **S. Richardson**, D. Hémon.

Accounting for pregnancy dependence in epidemiologic studies of pregnancy outcomes. Response to Reader's Reaction. *Epidemiology* **9**, 363-364 (1998).

C. Chouquet, M. Burgard, **S. Richardson**, C. Rouzioux, D. Costagliola.

Timing of mother-to-child HIV-1 transmission and diagnosis of infection based on polymerase chain reaction in the neonatal period by a nonparametric method. *AIDS*, **11**, 1183-84 (1997).

S. Richardson, C. Guihenneuc-Jouyaux.

Contribution to the discussion of the paper by Satten and Longini. *Applied Statistics* **45**, 298-299 (1996).

S. Richardson, C. Guihenneuc-Jouyaux, V. Lasserre.

Ecological studies - Biases, misconceptions and counterexample. *American Journal of Epidemiology* **143**, 522-523, (1996).

S. Richardson

Vote of thanks (read paper by Plummer & Clayton) RSS Meeting, avril 1995. *Journal of the Royal Statistical Society, Series B*, **58**:141-143, (1996).

M. Gerber, **S Richardson**

Consumption of olive oil and specific food groups in relation to breast cancer risk in Greece. *Journal of the National Cancer Institute*, **87**: 1020-1022, (1995).

P. Clifford, **S. Richardson**, D. Hémon. Response to Reader's Reaction. *Biometrics* **49**, 312-314 (1993).

S. Richardson, D Hémon.

Ecological bias and linear dose response relationship. *International Journal of Epidemiology* **20** (3), 817-818 (1991).

S. Richardson, D. Hémon.

Ecological bias and confounding. *International Journal of Epidemiology* **19**, 764-766, (1990).

Books

W.R. Gilks, **S. Richardson** and D.J. Spiegelhalter (eds): *Markov Chain Monte Carlo in Practice*, Chapman & Hall, 1996.

Green PJ, Hjort N and Richardson S (eds) *Highly Structured Stochastic Systems Oxford University Press*, 2003.

Chapters

S. Richardson, L. Bottolo and J.S. Rosenthal.

Bayesian models for sparse regression analysis of high dimensional data (with discussion) *Bayesian Statistics*, **9**. Bernardo JM, Bayarri S, Berger JO, Dawid P, Heckerman D, Smith AFM and West M (eds), Oxford University Press, (2011)

A. Lewin and **S. Richardson**.

Bayesian methods for microarray data, to appear in the *Handbook of Statistical Genetics*, eds D. Balding, M. Bishop and C. Cannings, Wiley (2007)

AM Hein, A Lewin and **S. Richardson**.

Bayesian hierarchical models for inference in microarray data. In Do KA, Muller, P, and Vanucci M (eds). *Bayesian inference for gene expression and proteomics*. Cambridge University Press. p. 53-70, (2006)

P.J.Green, N.L. Hjort and **S. Richardson**.

Introducing Highly Structured Stochastic Systems. In Green PJ, Hjort N and Richardson S (eds) *Highly Structured Stochastic Systems*. Oxford University Press, p1-12, (2003)

S Richardson

Spatial models in epidemiological applications. In Green PJ, Hjort N and Richardson S (eds) *Highly Structured Stochastic Systems*. Oxford University Press, p 237-255, (2003).

L. Watier, **S. Richardson**, P.J. Green.

Using Gaussian mixtures with known number of components for mixed model estimation. In : *Proceedings of the 14th International Workshop on Statistical Modelling*. H. Friedl, A. Berghold, G. Kauermann eds (1999).

S. Richardson, I. Deltour.

Bayesian modelling of measurement error problems with reference to the analysis of Atomic-Bomb survivor data.

In: Statistics for the Environment 4 : Health and environment. V. Barnett, K.F. Turkman and A. Stein, Eds. Wiley, p 259-279, (1999).

S. Richardson, C. Monfort.

Ecological correlation studies.

In: Disease & Exposure Mapping.

P. Elliott, J. Wakefield, N. Best, D. Briggs eds. Wiley, (1999).

C. Guihenneuc-Jouyaux, **S. Richardson**, V. Lasserre.

Convergence assessment in latent variable models : application to the longitudinal modelling of a marker of HIV progression.

In: Discretization and Convergence Assessment for MCMC algorithms.

C. Robert ed., Springer Verlag, p 147-160, (1998).

C.P. Robert, **S. Richardson**.

Markov chain Monte Carlo Methods

In: Discretization and Convergence Assessment for MCMC algorithms. C. Robert ed.,

Springer Verlag, p 1-25, (1998).

A. Raftery, **S. Richardson**

Model selection for generalized linear models via GLIB : Application to Nutrition and Breast Cancer. In : Bayesian Biostatistics, D.A. Berry and D.K. Strangl eds. pp. 321-353 (1995).

S. Richardson

Measurement error. Practical Markov Chain Monte Carlo. W.R. Gilks, S. Richardson, D.J. Spiegelhalter eds, Chapman et Hall, p401-417, (1995).

S. Richardson, M. Gerber

Nutritional factors and breast cancer in a French Mediterranean Region.

In : Epidemiology of Diet and Cancer, eds M. Hill, A. Giacosa, C Caygill., 353-377 (1994).

S. Richardson

Statistical methods for geographical correlation studies

In : Geographical and Environmental Epidemiology : Methods for Small Area Studies.

Eds P. Elliott, J. Cuzick, D. English, R. Stern.

Oxford University Press, p181-204, (1992).

S. Richardson and P. Clifford

Testing association between spatial processes

In : Spatial Statistics and Imaging.

Proceedings of an AMS-IMS-SIAM Joint Summer Research Conference, June 1988.

Editor A. Possolo.

Lectures Notes Monograph Series, Institute of Mathematical Statistics, Hayward, California, p. 295-308 (1991).

M. Gerber, **S. Richardson**, F. Favier, A. Crastes de Paulet.

Vitamin E and Tumor growth

In : Antioxydants in Therapy and Preventive Medicine.

Edited by I. Emerit et al. Plenum Press, New-York (1990).

S. Richardson

Some remarks on the testing of association between spatial processes.

In : Spatial Statistics : Past, Present, and Future
Institute of Mathematical Geography Monographes . pp. 277-312 (1990).

M. Gerber, **S. Richardson**, P. Chappuis
Selenium and other antioxydants in breast cancer.
In : Selenium in Medicine and Biology. Eds : Neve J., Favier A.
Walter de Gruyter, Berlin-New-York, 263-266 (1988).

S. Richardson

Testing the association between two spatial processes : a review of different approaches.
In : Spatial processes and spatial time series analysis
Edited by F. Dreesbeke. Travaux et Recherches Vol 11, p. 193-200 (1987).
Publications des Facultés Universitaires St Louis, Bruxelles.

S. Richardson, E. Baumelou
Agents leucémogènes environnementaux.
Encyclopédie des Cancers, Hémopathies malignes éditée par R.Zittoun.
Editions Flammarion Paris 2, 19-31 (1986).

S. Richardson, M. Gerber, H. Pujol.
Familial risk in a case-control study on breast carcinoma.
In : Familial Cancer. 1st Int. Res. Conf., Müller, Weber (eds)
Karger (Basel), 31-33 (1985).