

LIST OF PUBLICATIONS

MONOGRAPHS

- M1. Andersson H. and **Britton T.** (2000): Stochastic epidemic models and their statistical analysis. *Springer Lecture Notes in Statistics*, **151**. Springer-Verlag, New York.
- M2. **Britton T.** and Garmo H. (2002): *Sannolikhetslära och statistik för lärare* (in Swedish, 398 pp). Studentlitteratur, Lund.
- M3. **Britton T.** and Alm S E. (2008): *Stokastik* (in Swedish, 544 pp). Liber.

PUBLISHED SOFTWARE

- S1. PATHd8 – a program for phylogenetic dating of large trees without a molecular clock. (2006) By **Britton, T.**, Anderson, C., Jacquet, D., Lundqvist, S. and Bremer K. Freely available at www.math.su.se/PATHd8/ where also user manual and more is found.

PUBLISHED OR ACCEPTED IN REFEREED JOURNALS

- J1. **Britton T.**, (1997): Limit theorems and tests to detect within family clustering in epidemic models. *Communications in Statistics, Theory and Methods*, **26**, 953-976.
- J2. **Britton T.**, (1997): Tests to detect clustering of infected individuals within families. *Biometrics*, **53**, 98-109.
- J3. **Britton T.**, (1997): A test to detect within-family infectivity when the whole epidemic process is observed. *Scandinavian Journal of Statistics*, **24**, 315-330.
- J4. **Britton T.**, (1997): A test of homogeneity versus a specified heterogeneity in an epidemic model. *Mathematical Biosciences*, **141**, 79-100.
- J5. Andersson H. and **Britton T.** (1998): Heterogeneity in epidemic models and its effect on the spread of infection. *J. Appl. Prob.*, **35**, 651-661.
- J6. **Britton T.** (1998): Estimation in multitype epidemics. *J. Roy. Statist. Soc. B*, **60**, 663-679.
- J7. Becker N. G. and **Britton T.** (1999): Statistical studies of infectious disease incidence. (Invited paper for *RSS Research Workshop on Stochastic Modelling and Statistical Data Analysis for Epidemics*, held in April 97.) *J. Roy. Statist. Soc. B*, **61**, 287-307.
- J8. **Britton, T.** (1998): On critical vaccination coverage in multitype epidemics. *J. Appl. Prob.*, **35**, 1003-1006.
- J9. Becker N. G. and **Britton T.** (2001): Design Issues for Studies of Infectious Diseases. *Journal of Statistical Planning and Inference*, **96**, 41-66.

- J10. **Britton T.** and Becker N. G. (2000): Estimating the immunity coverage required to prevent epidemics in a community of households. *Biostatistics*, **1**, 389-402.
- J11. Andersson H. and **Britton T.** (2000): Stochastic epidemics in dynamic populations: quasi-stationarity and extinction. *J. Math. Biol.*, **41**, 559-580.
- J12. **Britton T.** (2001): Epidemics in heterogeneous communities: estimation of R_0 and secure vaccination. *J. Roy. Statist. Soc. B*, **63**, 705-715.
- J13. Ball, F. G., **Britton, T.** and O'Neill P. D. (2002): Empty confidence sets for epidemics, branching processes and Brownian motion. *Biometrika*, **89**, 211-224.
- J14. **Britton T.** and O'Neill P.D. (2002): Statistical inference for stochastic epidemics in populations with random social structure. *Scandinavian Journal of Statistics*, **29**, 375-390.
- J15. Tammi, M., Arner, E., **Britton, T.**, Andersson, B. (2002): A method to separate nearly identical repeats using Defined Nucleotide Positions, DNPs. *Bioinformatics*, **18**, 379-388.
- J16. **Britton, T.**, Oxelman B., Vinnersten A. and Bremer K. (2002): Phylogenetic dating with confidence intervals using mean path-lengths. *Molecular phylogenetics and evolution*, **24**, 58-65.
- J17. **Britton, T.** (2008): Pest kolera och matematik eller Vad kan matematik och statistik lära oss om smittsamma sjukdomars utbredning? (One chapter in *Människor och matematik*, a book popularising mathematics.)
- J18. Becker N.G., **Britton T.** and O'Neill P.D. (2003): Estimating vaccine effects on transmission of infection from household outbreak data. *Biometrics*, **59**, 467-475.
- J19. **Britton T.** (2004): Epidemic models, inference (1667-1671). In *Encyclopedia of Biostatistics*, 2 nd ed. P. Armitage and T. Colton (eds.), Wiley, London.
- J20. Ball F.G., **Britton T.** and Lyne O. (2004): Stochastic multitype epidemics in a community of households: estimation of threshold parameter R_* and secure vaccination coverage. *Biometrika*, **91**, 345-362.
- J21. Erixon P., Sennblad B., **Britton T.** and Oxelman B. (2003): The reliability of Bayesian posterior probabilities and bootstrap frequencies in phylogenetics. *Systematic Biology*, **52**, 665-674.
- J22. Ronquist F., Huelsenbeck J. P., and **Britton T.** (2004). *Phylogenetic supertrees*. Springer series in Computational Biology, vol 4, Bininda-Emonds, Olaf R.P. (Ed.).
- J23. Becker N.G., **Britton T.** (2004): Estimating vaccine efficacy from small outbreaks. *Biometrika*, **91**, 363-382.
- J24. Ball F.G., **Britton T.** and Lyne O. (2004): Stochastic multitype epidemics in a

community of households: estimation and form of optimal vaccination schemes. *Math. Biosci.*, **191**, 19-40.

J25. Lönnstedt I., **Britton T.** (2005): Hierarchical Bayes models for cDNA microarray gene expression. *Biostatistics*, **6**, 279-291.

J26. **Britton T.** (2005): Estimating divergence times in phylogenetic trees without a molecular clock. *Systematic Biology*, **54**, 500-507.

J27. Becker N.G., **Britton T.** and O'Neill P.D. (2006): Estimating vaccine effects from studies of outbreaks in household pairs. *Statistics in Medicine*, **25**, 1079-1093.

J28. Ball F.G. and **Britton T.** (2005): An epidemic model with exposure-dependent severities. *J. Appl. Prob.*, **42**, 932-949.

J29. Svennblad B., Erixon P., Oxelman B., **Britton T.** (2006): Fundamental differences between maximum likelihood and Bayesian inference in phylogenetics. *Systematic Biology*, **55**, 116-121.

J30. **Britton T.**, Deijfen M., Martin-Löf A. (2006): Generating random graphs with prescribed degree distribution. *J. Stat. Phys.*, **124**, 1377-1397

J31. Ericson, P.P.G., Andersson, C.L., **Britton T.**, Elzanowski, A., Johansson, U.S., Källersjö, M., Ohlson, J.I., Pahrsons, T.J., Zuccon, D., and Mayr, G. (2006): Diversification of Neoaves: integration of molecular sequence data and fossils. *Biology letters*, **2**:543-547 (+supplementary material).

J32. Lindholm, M. and **Britton, T.** (2007): Endemic persistence or disease extinction: the effect of population separation into subcommunities. *Th. pop. biol.* **72**: 253-263

J33. **Britton, T.**, Anderson, C., Jacquet, D., Lundqvist, S. and Bremer K. (2007): Estimating divergence times in large phylogenetic trees. *Systematic Biology*, **56**:741-752.

J34. **Britton T.**, Nordvik, M.K., and Liljeros, F. (2007): Modelling sexually transmitted infections: the effect of partnership activity and number of partners on R_0 . *Theor Pop Biol.*, **72**, 389-399.

J35. Ball F.G. and **Britton, T.** (2007): An epidemic model with infector-dependent severity. *Adv. Appl. Prob.*, **39**(4).

J36. **Britton T.**, Svennblad, B., Erixon, P. and Oxelman, B. (2007): Bayesian support is larger than bootstrap support in phylogenetic inference: a mathematical argument. *Math. Med. Biol.* doi: 10.1093/imammb/dqm008.

J37. **Britton, T.**, Janson, S., Martin-Löf A. (2007): Graphs with specified degree distributions, simple epidemics and local vaccination strategies. *Adv. Appl. Prob.*, **39**, 922-948.

J38. Svennblad, B. and **Britton, T.** (2007): Improving divergence time estimation in

phylogenetics: more taxa vs. longer sequences. *Stat. Appl. Gen. Mol. Biol.* **6** Iss. 1, Article 35.

J39. Spalding K., Arner E., Westermark P., Bernard S., Bergman O., Buchholz B.A., Blomqvist L., Hoffstedt J., Näslund E., **Britton T.**, Concha H., Hassan M., Rydén M., Frisé J., Arner P. (2008): Dynamics of fat cells turnover in humans. *Nature*, **453**, 783-7 (doi:10.1038/nature06902).

J40. **Britton T.**, Deijfen, M., Lindholm, M. and Nordvall Lagerås, A. (2008): Epidemics on random graphs with tunable clustering. *J. Appl. Prob.* **45**, 743-756.

J41. Rydén M., Agustsson T., Laurencikiene J., **Britton, T.**, Sjölin, E., Isaksson, B., Permert J., Arner P. (2008): No Major Role for Adipose Tissue Inflammation, Fat Cell Death or Reduced Lipogenesis in Cancer Cachexia. *Cancer*, **113**, 1695-1704.

J42. Nyimvua S., Andersson M., Svensson Å. and **Britton T.** (2008): Networks, epidemics and vaccination through contact tracing. *Math. Biosci.*, **216**, 1-8.

J43. Nyimvua S., Andersson M., Svensson Å. and **Britton T.**: Networks and early stage vaccination: the effects of infectious and vaccination delay periods and their randomness. To appear in *East Afr. J. of Stat.*

J44. Ball F.G. and **Britton, T.**: An epidemic model with infector and exposure dependent severity. To appear in *Math. Biosci.*

SUBMITTED TO REFEREED JOURNALS

Linder, M., **Britton, T.**, Sennblad, B.: Parental guidance vs. mutual independence – evaluation of Bayesian models and substitution rate evolution. Submitted.

Nyimvua S., Andersson M., Svensson Å. and **Britton T.**: Modelling household epidemics and early stage vaccination. Submitted to *Biometrical Journal*.

Britton, T. and Lindholm, M.: The early stage behaviour of a stochastic SIR epidemic with term-time forcing. Submitted to *J. Appl. Prob.*

Britton, T. and Lindenstrand, D.: Epidemic modelling: aspects where stochasticity matters. Submitted to *Epidemics*.

Arner, E., Westermark, P.O., Spalding, K.L., **Britton, T.**, Dahlman, I., Jiao, H., Wahrenberg, H., Leijonhufvud, B-M., Hertel, K., Löfgren, P., Frisé J., Bernard, S., Arner, P.: Adipose Tissue Cellularity Determines a Cardiovascular Risk Profile Which Is Independent of Obesity. Submitted to *New Eng. J. Med.*

MANUSCRIPTS IN PROGRESS

Britton T. Kypraios T. and O'Neill P.D.: Statistical models for epidemic models with

three levels of mixing.

Diekmann O., Heesterbeek H. and **Britton T.**: *Mathematical Epidemiology of Infectious Diseases* (monograph, revised and extended second edition).

Britton, T. and Lindholm, M.: *Dynamic random networks in dynamic populations.*

Wangombe A., Andersson M., and **Britton T.**: *A stochastic epidemic model for tick borne diseases: initial stages of an outbreak and endemic levels.*

PUBLISHED IN REFEREED PROCEEDINGS

P1. **Britton, T.** (1998): Preventing epidemics in heterogeneous communities. Proceedings of XIXth International Biometric Conference, IBC98, invited papers, 109-115.

P2. **Britton T.** (2001): A discussion on three papers relating deterministic versus stochastic modelling and analysis. (Invited discussant paper at the session "Relation between biomathematical modelling and biostatistics"). *Bulletin of International Statistical Institute*, 53 rd Session proceedings, Book 3, p 102-103. Seoul, Korea, August 2001.

OTHERS

O1. **Britton T.**, (1990): Response surface methodology for computer experiments in radionuclide transportation studies. Research report B:10 (Applied research). Institute of Actuarial Mathematics and Mathematical Statistics, Stockholm University. (Master Thesis)

O2. **Britton T.** and Sundberg R., (1990): Response surface methodology for computer experiments in radionuclide transportation studies. Technical report 90:14. Swedish Nuclear Power Inspectorate (swedish: SKI, Statens Kärnkrafts-Inspektion). Revised and extended version of previous reference.

O3. **Britton T.**, (1992): The asymptotic distribution of a clustering index. Report No. 166. Institute of Actuarial Mathematics and Mathematical Statistics, Stockholm University.

O4. **Britton T.**, (1992): Aktiv inläring och kritiskt tänkande i matematik (in Swedish). In *Högre lärande?* Report 1992:2, PU-rapport (Pedagogiskt utvecklingsarbete, Stockholms Universitet).

O5. **Britton, T.**, (1996): Epidemics with Heterogeneous Mixing: Stochastic Models and Statistical Tests. PhD-thesis, Stockholm University. Consisting of a summary and first four published papers.

O6. **Britton T.**, (1996): Epidemier, kontaktstrukturer och statistik (in swedish). *Quartalen* 1996(2):8-9, (Official Bulletin of The Swedish Statistical Association).

- O7. Andersson H. and **Britton T.** (1997): Fade-outs for SIR epidemics with demography and generalized infectious period. UUDM Report 1997:28. Department of Mathematics, Uppsala University.
- O8. Laurent N., Swenson U., McLoughlin S, **Britton T.** and Bremer K. (1998): Vicariance or dispersal - pacific biogeography of four plant groups.
- O9. **Britton T.** (2000): The expected value of a simple birth and death process conditioned on the future.
- O10. **Britton, T.** (2002): Book review: *Epidemic Modelling: an introduction.* (1999) by D J Daley and J Gani. *Statistics in Medicine*, **21**, 2773-2774.
- O11. **Britton, T.** (2002): Book review: *Biometrika: one hundred years.* (2001) by D M Titterton and D R Cox (eds.) *Elementa*, **85:3** (a swedish mathematics journal).
- O12. **Britton, T.** (2003): Henrekson missbrukar statistiken *DN-debatt* 2003-03-11. (in Swedish).
- O13. **Britton, T.** (2003): Svårt att räkna till sex. *DN, Namn och Nytt* 2003-11-23. (in Swedish).
- O14. **Britton, T.** (2006): Book review: *An introduction to continuous-time stochastic processes: theory, models and applications in finance biology and medicine.* (2005) by V. Capasso and D. Bakstein. *Math. Biosci.*, **199**, 234-235.
- O15. **Britton, T.** (2006): Att handleda afrikanska studenter. *Quartilen* **21:1**, 18-19. (in Swedish).