Meddelelser v/Morten Frydenberg Institut for Biostatistik Aarhus Universitet BREV Ukonvoluteret PP Danmark

Returneres ved varig adresseændring

Næste nummer af "MEDDELELSER" udkommer 1. december 1999.

Bidrag til dette nummer skal være redaktøren i hænde senest

onsdag den 24. november 1999.

Bidrag bedes sendt til:

Meddelelser, v/Morten Frydenberg Institut for Biostatistik Vennelyst Boulevard 6 8000 Århus C. eller med e-mail til: morten@biostat.au.dk

medlinfo@dsts.dk skal benyttes ved indmeldelse og adresseændring i DSTS.

Bidrag i elektronisk form ønskes helst i et af nedenstående formater: Word, LATEX, HTML, Postscript eller ASCII.

Annoncering af stillinger er kr. 500 pr. side

# **MEDDELELSER**

Dansk Selskab for Teoretisk Statistik

## Todagesmøde i selskabet 23. - 24. november

Afdeling for Teoretisk Statistik, Aarhus Universitet (se program inde i bladet)

Deltagergebyr: 400 kr. for "voksne" (inkl. ph.d.-studerende). 200 kr. for studerende.

Belebet indbetales på DSTS's girokonto 318-8418, MED TYDELIG ANGIVELSE AF HVEM DET VEDRØRER.

Tilmelding til kassereren, Ernst Hansen, E-mail: erhansen@math.ku.dk, Tilf: 35320773, allersenest fredag den 17. november, kl. 12.00.

Mødet er arrangeret af Afdeling for Teoretisk Statistik og Laboratoriet for Computer Stokastik, Aarhus Universitet

Der afholdes *juleforedrag* i selskabet tirsdag den 14. december kl. 18.00. Foredragsholder: Henrik Madsen, IMM, DTU. Yderligere information i næste nummer.

#### Indbydelse

I anledning af at professor Hans Brøns fratræder sin stilling, afholdes der reception på Afdeling for Teoretisk Statistik, HCØ værelse E 420

Tirsdag den 30. november 1999, kl. 15.00

## Selskabets bestyrelse:

Formand:		harpon Tana
Peter Dalgaard	TIE	3532 7918
Biostatistisk Afdeling	Fax:	3532 7907
Panum Instituttet	c-mail:	p.dalgaard@biostat.ku.dk
Blegdamsvej 3	S	
2200 Kebenhavn N		
Kasserer		
Ernst Hansen	TIE	3532 0773
Afdeling for Teoretisk Statistik	Fax:	3532 0772
Københavns Universitet	e-mail:	erhansen@math.ku.dk
Universitetsparken 5		
2100 København Ø		
Redaktør:		TE DI LE
Morten Frydenberg	TIE	8942 6130
Institut for Biostatistik	Fax:	8942 6140
Aarhus Universitet	e-mail:	morten@biostat.au.dk
Vennelyst Boulevard 6		
8000 Århus C		
Sekretær:		D. L. C. C.
Helle Andersen	TIE:	4442 1957
NOVO	Fax:	4442 1065
Krogshojvej 53	e-mail:	hand@novo.dk
2880 Bagsværd		
Jyske anliggender:		
Bjarne Højgaard	TIf:	9635 8080
Institut for Matematiske Fag		9635 8927 (direkte)
Aalborg Universitet	Fax:	9815 8129
Frederik Bajersvej 7	e-mail:	malik@math.auc.dk
9200 Aalborg Øst		
Webmaster:		
Henrik Stryhn	TIf:	3530 0237
Statens Veterinære Serumlaboratorium	Fax:	3530 0120
Bülowsvej 27	e-mail:	hes@svs.dk
1790 København V		

Selskabets www-adresse: Http://www.dsts.dk.

Generiske e-mail-adresser i selskabet

Formand: find, formand, chair, chairman Kasserer; kass, kasserer, treas, treasurer Redaktør: red, redaktør; edit, editor Sekretær; sekr, sekretær, secr, secretæry Jyske anliggender: jysk, jyskeanl, jutland Webmaster; web, webmaster, www

Meddelelser: medd, meddelelser, newsl, newsletter

Bestyrelsen: best, bestyr, bestyrelse, board

medlinfo@dsts.dk skal benyttes ved indmeldelse og adresseændring i DSTS

#### SEMINAR I ANVENDT STATISTIK

Seminaret afholdes kl. 15.15, Panum Instituttet, Blegdamsvej 3. (Indgangen Nørre Alle 20 kan også benyttes).

Der serveres te i Biostatistisk Afdeling på gangarealet (33.4.11) kl. 14.45.

Mandag d. 8. november, lokale 21.2.27b: Jan Parner, Biostatistisk Afdeling, Københavns Universitet

#### Causal reasoning in longitudinal studies

Causal inference is an area in biostatistics and epidemiology that has gained more focus recently. In the context of longitudinal studies an extensive list of papers by Robins has been published, with some key references being Robins (1986, 1989, 1998) and Robins et al. (1992). He proposes tools for inferring causal effects in discrete time based on complex longitudinal data. The framework is based on the Humean counterfactual theory of event identity where a cause is defined through counterfactual statements and assumes the existence of a priori fixed potential or counterfactual outcomes. The condition for valid causal inference is called ignorable assignment or no unmeasured confounders and is stated by use of these counterfactuals rather than the observed data. While counterfactuals are conceptually important in understanding cause and effect, they appear to be a restriction in the statistical modelling of data.

This talk is an attempt to explain the contents of causal inference and how a consistent theory may be built without the use of counterfactuals. For clinical trials and observational studies involving an embedded assignment mechanism we present a marked point process framework for the main features of Robins' methodology in continuous time. We explain the importance of a strong version of no confounding in likelihood based statistical inference and motivates the use of predictive distributions (cf. Arjas and Eerola (1993)).

Mandag d. 15. november 1999, lokale 21.1.25a: Lars Endahl, National Institute of Occupational Health, Denmark

#### A semiparametric approach to the analysis of longitudinal, ordinal responses

In many researchers' opinion self-rated pain is the most natural measure of musculoskeletal disorders. However, self-rated pain can only be assessed from the trial subjects own statements, and there is at present no gold standard for how to make such measurements. In the PRIM Study, which is a 3-year follow-up study on work-related musculoskeletal disorders, self-rated pain is assessed through questionnaires, where the average trouble in the upper limbs during the last 3 months is scored on a 10-point scale.

Such scale responses are usually analysed by logistic regression on the dichotomized scale or by a proportional odds model (or the like) on the full scale. The drawback to the former approach is that valuable information about the responses is wasted, whereas the drawback to the latter approach is that the assumptions implied by the proportional odds model are rarely fulfilled when the response can take a large number of values.

In the talk I will discuss these shortcomings and present a semiparametric approach with robust variance estimation to analyse ordinal scales. In the approach the mean value structure is parameterized logit linear and the variance structure resembles a binomial variance with overdispersion. The semiparametric method utilizes the full scale but requires only a minimum of assumptions. Furthermore, the method is easily extended to a longitudinal set-up, either by the use of generalized estimating equations or by adding random effects to the linear predictor.

The practical use of the method is illustrated in an analysis of self-rated pain data from the PRIM Study.

## SEMINAR I MATEMATISK STATISTIK OG SANDSYNLIGHEDSREGNING.

Seminarerne afholdes kl. 15:15 præcis i auditorium 10 H.C.Ørsted Instituttet. Der serveres te i lokale E325 kl. 15:00.

Fredag den 5. november i aud 5: Søren Johansen (European Univesity Institute)

#### Bartlett korrektion af test i kointegrations modellen.

Foredraget vil indeholde en kort introduktion til kointegrationsmodellen for I(1) processer, samt de velkendte resultater om inferens på kointegrationskoefficienterne. Dernæst vil jeg omtale nogle nye resultater om Bartlett korrektion af test på kointegrationskoefficienter, samt nogle uløste problemer om Bartlett korrektion af rank.

Onsdag den 10. november: Mathieu Kessler (Universidad Politecnica de Cartagena):

# Computational aspects related to martingale estimating functions for a discretely observed diffusion.

Martingale estimating functions for a discretely observed diffusion have turned out to provide estimators with nice asymptotic properties. However, their expression usually involve some conditional expectation that has to be evaluated through Monte Carlo simulations giving rise to an approximated estimator. In this work we study the asymptotic properties of the approximated estimator and describe the influence of the number of independent simulated trajectories involved in the Monte Carlo method as well as of the approximation scheme used. Our results are of ractical relevance to assess the implementation of martingale estimating functions for discretely observed diffusions.

#### STUDY GROUP ON INFERENCE FOR STOCHASTIC PROCESSES.

Onsdag den 3. november: Martin Jacobsen (ATS-KU):

#### Optimality and small delta-optimality of martingale estimating functions

Consider a d-dimensional diffusion, observed at finitely many equidistant timepoints, delta denoting the time interval between two successive observations. Some of the nicest and most useful estimating functions for estimating the parameters of the diffusion are obtained by considering martingales derived from one or more (say r) real valued functions of the diffusion minus the relevant conditional expectations. Given such a base of dimension r, there is a simple expression for the optimal (in the sense of minimizing the asymptotic covariance for the estimator) corresponding martingale estimating function, for any given delta. That optimal estimating function will typically not be efficient, but if it is also small-delta optimal it will be (nearly) efficient for small values of delta.

Small delta-optimality was introduced in (MJ), where the main result gives sufficient conditions for small-delta optimality to hold. This result will be briefly surveyed, but the main purpose of the talk is to show (i) that given a base of dimension r, it is easy to construct a small-delta optimal martingale estimating function with the given base, if only r is sufficiently large; (ii) to verify directly that the optimal estimating function with a given base is automatically small delta-optimal if r is large enough. Of course the critical value of r will be determined!

Reference (MJ): M. Jacobsen. Discretely observed diffusions: Classes of estimating functions and small-delta optimality. Preprint 11, 1998 Dept. of Theoretical Statistics, Univ. of Copenhagen.

#### KØBENHAVNS UNIVERSITET FORSIKRINGSMATEMATISK LABORATORIUM COLLOQUIUM IN ACTUARIAL MATHEMATICS

the seminar is held Tuesday at 16.15 in Aud 10

December 14: Robert Johnsen, Copenhagen Re

#### "Optimal Reinsurance - using a Value-at-Risk Approach" (Speciale)

Cedants tend to buy a lot of reinsurance feeling this provides a better overall protection. Unfortunately, exactly the opposite result can occur. Instead, a portfolio approach is recommended. The main target is to maximise the expected annual profit disallowing it to fall below a certain level (by a certain percentage), but alternative measures of "optimal" are discussed. Emphasis is laid upon coordination of reinsurance between segments.

Institut for Folkesundhedsvidenskab Københavns Universitet

#### Ledig stilling til STATISTIKER

Per 1. januar 2000 er stilling ledig som statistiker ved Afdelingen for Epidemiologi, Institut for Folkesundhedsvidenskab, Københavns Universitet.

Der er tale om en projektansættelse. Arbejdet består i at vurdere, om mammografiscreeningen i København har haft effekt på dødeligheden af brystkræft.

Projektet ledes af Elsebeth Lynge og foregår i samarbejde med eksperter i brystkræft og radiologi.

Erfaringer fra arbejde med store registre vil være en fordel.

Ansættelse efter overenskomsten mellem staten og AC.

Oplysninger om arbejdet fås hos Elsebeth Lynge, telefon 35 32 76 45 eller e-mail elsebeth@pubhealth.ku.dk

Skriftlig ansøgning sendes til Elsebeth Lynge, Institut for Folkesundhedsvidenskab, Københavns Universitet, Blegdamsvej 3, 2200 København N, inden 15. november 1999 kl. 12.00.

## Statistics/Diabetes Health Care Development Novo Nordisk A/S

Da to af vores statistikere i Statistik/Diabetes i Novo Nordisk A/S har valgt at prøve kræfter med andre jobs, og to andre statistikere skal have barselsorlov, søger vi derfor snarest deres afløsere samt en vikar for en samlet periode på 14 måneder.

Afdelingen beskæftiger sig med alle sider af den statistike håndtering af firmaets kliniske og non-kliniske lægemiddel-udviklingsprogram, fra planlægning af studier til analyse, rapportering af studie resultater og medvirken ved udarbejdelse af videnskabelige publikationer.

Det faglige miljø, som du vil blive en del af, omfatter de 2 statistik afd. i Health Care Development, med ialt 26 statistikere, 6 SAS-programmører og 5 sekretærer, og er organisatorisk placeret tæt på firmaets International Datamanagement og Clinical Reporting funktioner.

Vi ønsker at vores nye medarbejdere har en solid teoretisk baggrund i statistik, svarende til min. en MSc. i statistik, og ser gerne at du har erfaring indenfor praktisk anvendelse af statistiske metoder i relation til forskning i biomedicinske problemstillinger. Du vil få mulighed for at udbygge dit kendskab til de specielle statistiske problemstillinger, der knytter sig til udvikling af nye lægemidler, dels gennem dine konkrete arbejdsopgaver, deltagelse i projektrelaterede statistikerteams og tværfaglige projektteams, men også gennem deltagelse i kurser og kongres aktiviteter.

De konkrete statistiske analyser foretager vi primært i SAS, hvorfor det er ønskeligt om du har kendskab til SAS eller anden statistisk software pakke.

Opgaverne løses i tæt samarbejde med en række medarbejdere af forskellig faglig baggrund, i et til tider tidsmæssigt intenst tempo. Vi forudsætter, at du er i stand til at holde overblik over mange sideordnede opgaver, uden at det går ud over kvaliteten, samt at bevare dit gode humør, også når det går stærkt.

I de tværfaglige teams tages mange af de projektrelaterede beslutninger, evne for samarbejde og til at tage beslutninger i tæt samarbejde med andre, er derfor et vigtigt element i dagligdagen.

Vores arbejdsområde, -metoder og -processer er altid under udvikling, ikke mindst på basis af initiativer, der tages medarbejderne. Det er i vores ånd, at du også kan og vil bidrage til statistikfunktionens fortsatte udvikling som en god og udviklende arbejdsplads for medarbejderne.

Hvis du ønsker yderligere oplysninger om stillingen er du velkommen til at ringe til Merete Jørgensen på 44 42 17 28 eller Helge Gydesen på 44 42 60 52.

På ansøgningen, som du bedes mærke 'Statistiker 9042', vil vi gerne have, at du anfører, om du alene er interesseret i at komme i betragtning til en de faste stillinger, eller du også kunne være interesseret i vikariatet. Din ansøgning fremsendes til Personaleafdelingen, Health Care, Novo Nordisk A/S. Novo Allé, 2880 Bagsværd.



Novo Nordisk A/S

Novo Allé 2880 Bagsværd Denmark

Tel. +45 4444 8888 Fax. +45 4449 0555 Telex 37173

A/S reg. nr. 16201

Todagesmøde 23.- 24. november Afdeling for Teoretisk Statistik, Institut for Matematiske fag, Aarhus Universitet, Ny Munkegade, 8000 Århus C.

#### Program:

Tirsdag den 23. november i lokale aud D1.

14.30-15.30 Jesper Møller, Department of Mathematical Sciences, Aalborg University.

#### A REWIEW ON PERFECT SIMULATION

Over the last decade there has been an explosive interest in developing and applying Markov chain Monte Carlo (MCMC) methods in statistics. Ordinary MCMC methods are only correct in the limit where an infinite number of steps in the simulations have been performed and it is very often difficult to assess the quality of the Monte Carlo approximations with confidence. A recent topic, which has drawn great attention after the seminal work of Propp and Wilson (1996), is perfect simulation where one is assured that equilibrium has been attained. In the talk I'll review recent developments on perfect simulation based on my own and others research, of the references below.

- O. Häggström, M.N.M. van Lieshout and J. Møller (1999). Characterisation results and Markov chain Monte Carlo algorithms including exact simulation for some spatial point processes. Bernoulli, 5, 641-659.
- J.A. Fill (1998). An interruptible algorithm for perfect sampling via Markov chains. Annals of Applied Probability, 8, 131-162.
- W.S. Kendall (1998). Perfect simulation for the area-interaction point process. In L. Accardi and C.C. Heyde, editors, Probability Towards the Year 2000. Springer, New York.
- W.S. Kendail and J. Møller (1999). Perfect Metropolis-Hastings simulation of locally stable point processes. Research Report R-99-2001, Department of Mathematical Sciences, Aalborg University.
- A. Mira, J. Møller and G.O. Roberts (1999). Perfect slice samplers. (In preparation)
- J. Møller (1999). Perfect simulation of conditionally specified models. Journal of the Royal Statistical Society, B 61, 251-264.
- J. Møller and G. Nicholls (1999). Perfect simulation for sample-based inference. Research Report R-99-2011, Department of Mathematical Sciences, Aalborg University.
- J. Møller and K. Schladitz (1999). Extensions of Fill's algorithm for perfect simulation. Journal of the Royal Statistical Society, B 61, 955-969.
- D.J. Murdoch and P.J. Green (1998). Exact sampling from a continuous state space. Scandinavian Journal of Statistics, 25, 483-502.
- J.G. Propp and D.B. Wilson (1996). Exact sampling with coupled Markov chains and applications to statistical mechanics. Random Structures and Algorithms, 9, 223-252.
- D.B. Wilson (1999). How to couple from the past using a read-once source of randomness.

Random Structures and Algorithms. To appear.

15.30-16.00 Pause (Kaffe og The)

16.00-16.45 Ernst Hansen, Department of Theoretical Statistics, University of Copenhagen

# **GEOMETRIC ERGODICITY OF METROPOLIS ALGORITHMS.** (Joint work with Søren Fiig Jarner, Lancaster University)

Markov Chain Monte Carlo methods form a broad class of techniques for evaluating integrals through simulation. If an integral with respect to a probability measure P (referred to as the target measure) is desired, the idea is to construct a Markov chain with P as invariant distribution.

The Metropolis algorithm, based on a random walk, is a general technique for the construction of such a Markov chain. The algorithm is extremely simple to implement, and it will "always work". But it will not always "perform well". These differences are formalized through various notions of ergodicity. In particular emphasis is put on geometric ergodicity. Partly because it gives fast convergence of the chain. But even more so, because it gives intrinsic error-bounds on the estimated integrals.

In this talk we will give new necessary and sufficient conditions for geometric ergodicity of the Metropolis algorithm. We will to a large extent clarify the mysteries of the Roberts/Tweedie phenomena, where geometric properties of the level curves of the target density may prevent geometric ergodicity. In particular, we will give easily checked practical conditions.

16.45-16.55 Pause

16.55-17.40 Jan Parner

#### CAUSAL REASONING IN LONGITUDINAL STUDIES

Causal inference is an area in biostatistics and epidemiology that has gained more focus recently. In the context of longitudinal studies an extensive list of papers by Robins has been published, with some key references being Robins (1986,1989,19980 and Robins et.al. (1992). He proposed tools for inferring causal effects in discrete time based on complex longitudinal data.

The framework is based on the Humean counterfactual theory of event identity where a cause is defined through counterfactual statements and assumes the existence of a priori fixed potential or counterfactual outcomes. The condition for valid causal inference is called ignorable assignment or no unmeasured confounders and is stated by use of these counterfactuals rather than the observed data. While counterfactuals are conceptually important in understanding cause and effect, they appear to be a restriction in the statistical modelling of data.

This talk is an attempt to explain the contents of causal inference and how a consistent theory may be built without the use of counterfactuals. For clinical trials and observational studies involving an embedded assignment mechanism we present a marked point process framework for the main features of Robins' methodology in continuous time. We explain the importance of a strong version of no confounding in likelihood based statistical inference and motivates the use of predictive distributions (cf. Arjas and Eerola 1993).

Arjas, E. and Eerola, M. (1993): On predictive causality in longitudinal studies. J. Statist. Plan. Inf., 34, 361-386.

Robins, J. (1986): A new approach to causal inference in mortality studies with a sustained exposure period - application to control of the healthy worker. Math. Model., 7, 1393-1512.

Robins, J.M. (1998) Structural nested failure time models. In Encyclopedia of Biostatistics (eds Armitage, P. and Colton, T.) Chichester: Wiley & Sons, 4372-4389.

Robins, J. (1989): The control of confounding by intermediate variables. Statist. in Med., 8, 679-701.

Robins, J., Blevins, D., Ritter, G. and Wulfsohn, M. (1992): G-estimation of the effect of prophylaxis therapy for pneumocystis carinii pneumonia on the survival of AIDS patients. Epidemiology, 3, 319-336.

18.45- Middag (Matematisk Kantine)

#### Onsdag den 24. november i lokale aud G1.

09.30-10.30 Jesper Møller, Department of Mathematical Sciences, Aalborg University.

#### A REWIEW ON PERFECT SIMULATION (Continued)

10.30-11.00 Pause (Kaffe, The)

11.00-11.45 Laird Breyer, Department of Mathematical Sciences, Aalborg University.

#### ON PERFECT SIMULATION WITH GIBBS SAMPLERS

Perfect Simulation technology uses ergodic Markov chains to produce samples distributed according to some target distribution *exactly*. I shall discuss some coupling methods, which appear especially interesting when the Markov chains are of the Gibbs sampler type. Their use in Per-

fect simulation will be illustrated.

11.45-12.00 Pause

12.00-12.45 Asger Hobolth, Laboratory for Computational Stochastics, University of Aarhus

## QUANTIFYING SHAPE VARIABILITY OF FEATURELESS OBJECTS BY MEANS OF TEMPLATE MATCHING

Often it is convenient to describe a solid object in the plane as a stochastic deformation of a (non-stochastic) template. This means that there is a random residual process which, together with the template, determines the object. In this talk focus is mainly on models describing the residual process. We treat it as a stationary, periodic, zero-mean Gaussian process defined in continuous time. The method is applied on a dataset to explore shape variability.

12.45-14.00 Frokost (Matematisk Kantine)

14.00-14.45 Eva B. Vedel Jensen, Laboratory for Computational Stochastics, University of Aarhus

#### INHOMOGENEOUS SPATIAL POINT PROCESSES

Models for spatial point processes, describing inhomogeneity as well as interaction between the points have recently attracted considerable attention. This appears to be a very natural step towards more realistic modelling, where both first and second order properties of the point pattern (like mean and variance in a univariate setting) are taken into acount. In the present talk I will give a review of the various models that have been suggested. In particular I will consider inhomogeneous spatial point processes obtained by applying parametrized transformations to homogeneous Markov point processes.



## Adjunktstilling i matematik

Ved Det Teknisk-naturvidenskabelige fakultet, Institut for Matematiske Fag, er en stilling som adjunkt i matematik ledig til besættelse pr. 1. februar 2000. (Stilling nr. 99021).

Stillingen vil forskningsmæssigt være tilknyttet faggruppen i sandsynlighedsregning og statistik, og der vil blive lagt vægt på, at den pågældendes kvalifikationer på naturlig måde støtter eller supplerer eksisterende forskningsaktiviteter i denne faggruppe.

Undervisningen vil ligge inden for matematik og statistik ved cand.scient.-uddannelsen og ved universitetets øvrige uddannelser.

Eventuelt kan der i mindre omfang påregnes visse statistiske konsulentopgaver.

Nærmere oplysninger kan fås ved henvendelse til institutleder E. Susanne Christensen, direkte telf. 9635 8801, e-mail susanne@math.auc.dk

Ansættelse som adjunkt forudsætter videnskabelige kvalifikationer som ph.d. eller tilsvarende videnskabelige kvalifikationer. Ved den samlede vurdering af den enkelte ansøger lægges der vægt på ansøgerens forskningspotentiale, så med mindre særlige forhold gør sig gældende, vil der ikke kunne ansættes adjunkter med en kandidatalder på over 8 år.

Notat om stillingsstruktur for videnskabeligt personale med forskningsopgaver og undervisningsopgaver ved de højere uddannelsesinstitutioner kan rekvireres ved fakultetet, telf. 9635 0631. Ansættelse i henhold til overenskomst mellem Staten og AC.

Ansøgeren skal i sin ansøgning beskrive det grundlag, som den pågældende ønskes bedømt på for såvidt angår videnskabelige, undervisningsmæssige og andre kvalifikationer.

Ansøgningen skal desuden indeholde dokumentation for:

- Uddannelse
- Videnskabelige kvalifikationer. Der skal vedlægges publikationsliste med angivelse af de arbejder, ansøgeren ønsker at påberåbe sig. Bedømmelsesudvalget kan kræve tilvejebragt yderligere materiale.
- Undervisningsmæssige kvalifikationer.

Ansøgningen skal herudover indeholde oplysninger om personlige data og hidtidige arbejdsforhold m.m.

Bedømmelse af ansøgere til stillingen sker ved fagkyndigt udvalg, hvis indstilling i sin helhed sendes til alle ansøgere.

Ansøgninger mrk. stillingsnummer, bilagt påberåbte publikationer og andet materiale i 3 eksemplarer samt liste over det medsendte materiale, skal være universitetet i hænde senest den 18. november 1999 med morgenposten.

Ansøgninger sendes til:

Aalborg Universitet
Det teknisk-naturvidenskabelige fakultet
Postboks 159
9100 Aalborg

#### Statistiker til DBCG

Sekretariatet for DBCG (Danish Breast Cancer Cooperative Group) søger en statistiker til besættelse af en ledig stilling pr 1-1-2000 eller snarest.

DBCG har ansvar for vedligeholdelse og opdatering af et landsdækkende register for brystkræftpatienter, og har koordineret brystkræftbehandlingen i Danmark siden 1977. En væsentlig del af dette arbeide er foregået i randomiserede forsøg.

#### Sekretariatets arbejde består i:

- Statistisk bearbejdelse af resultater fra kliniske forsøg, herunder samarbejde med læger om forskningsprojekter på grundlag af disse forsøg.
- Deltagelse i udvikling af protokoller til kliniske forsøg, tildels i internationalt samarbejde, som vil blive søgt udbygget i de nærmeste år.
- Epidemiologiske forskningsprojekter i samarbejde med andre registre
- Deltagelse i kvalitetssikring og vedligeholdelse af databasen

Sekretariatet er pt. normeret til en læge (deltid), 3 statistikere og 4 datasekretærer. Databasearbejdet varetages af UNI-C. Der er aftalt et samarbejde med Biostatistisk Afdeling ved Det Sundhedsvidenskabelige Fakultet.

#### Kvalifikationer

Du skal have en matematisk-statistisk uddannelse som cand.stat, cand.scient, cand polyt eller lignende og have interesse for at DBCG's aktiviteter fortsættes og udbygges på internationalt metodeniveau.

## Løn og ansættelses forhold.

Lønnen aftales i henhold til gældende overenskomst, med mulighed for at forhandle et personligt tillæg. Arbejdstiden er 37 timer pr uge.

## **Ansøgning**

Ansøgning sendes til Overlæge Dr. Med. H.T. Mouridsen, DBCG sekretariatet, afsnit 7003, Blegdamsvei 9, 2100 Kbh. Ø, senest mandag d.22. november 1999.

Nærmere oplysninger kan fås ved henvendelse til ledende statistiker Susanne Møller, tlf. 3538 6530.

#### STATISTICIANS **Radiation Effects Research Foundation** Hiroshima & Nagasaki, Japan

The US National Academy of Sciences and the Radiation Effects Research Foundation (RERF) are recruiting statisticians to work in the RERF Department of Statistics in Hiroshima Japan. RERF is a cooperative US-Japan research institute with about 45 scientists engaged in the continuing mortality and morbidity follow-up together with clinical and laboratory studies of several large cohorts of atomic-bomb survivors and their children. RERF findings are the primary basis for worldwide radiation protection standards. RERF statisticians collaborate with researchers in other departments on the design and analysis of various studies, play a central role in analysis and interpretation of the major RERF studies, and conduct research on statistical issues that arise in dealing with the survivor data. Areas in which the department is actively involved include: development and application of innovative methods for the assessment of age-time patterns in excess risks and the identification of radiation effects; application of mechanistic models for radiation carcinogenesis; assessment of uncertainties in generalizing from these data; development of methods to assess and adjust for the impact of dose measurement error on risk estimates: analyses of large and complex longitudinal data sets using generalized models; assessment of somatic effects of radiation at the cellular level; and the application of pattern recognition methods to the analysis of data from electrophoretic and DNA-sequencing methods in the search for evidence of mutation in the children of the survivors.

We are looking for experienced Ph.D. statisticians with a proven record of accomplishment to work with our group of six Japanese and non-Japanese statisticians on the interesting and challenging statistical problems that arise in the course of the RERF studies. Typical appointments are for two years with extensions possible; however, shorter terms can be arranged in exceptional cases. Salaries are commensurate with experience and are supplemented by relocation, cost-ofliving, housing, home leave, international school tuition, and other benefits. Equal Opportunity Employer (EOE).

To apply for a position at RERF, send a resume together with the name, address, e-mail address, and fax number of three references to Dr. Evan Douple by:

E-mail: edouple@nas.edu

Fax: (202) 334-1639

NRC/RERF, NAS 342-ED, Postal mail:

2101 Constitution Avenue, NW,

Washington, DC 20418, USA

Additional information about RERF and the Department of Statistics can be obtained from the RERF home page (www.rerf.or.jp) or by contacting Dale Preston by e-mail (preston@rerf.or.jp) or fax (81-82-262-9768), or from Michael Væth University of Aarhus (vaeth@biostat.au.dk).

# Kalender 1999

(arrangementer annonceret i MEDDELELSER)

Dato	Med. nr.	Aktivitet
1/11	8/99	Seminar. Daniel Gianola. Statistical methods in quantitative genetics and animal breeding: an overview. (BIOSTAT-KU)
1/11	8/99	Seminar. Inge Riis Korsgaard. Genetic analysis of survival data – the log normally distributed frailty model and heritability. (OU)
2/11	8/99	Seminar. Vladimir Kalashnikov and Ragnar Norberg. Power-tailed ruin probability in the presence of small claims and random interest rate. (FML-KU)
3/11	9/99	Seminar. Martin Jacobsen. Optimality and small delta-optimality of martingale estimating functions.(ATS-KU)
4/11	8/99	Stiftende generalforsamling. Dansk Selskab for tobaksforskning.
5/11	8/99	Seminar. Alexander Alekseevich Borovkov (Lund)
5/11	9/99	Seminar. Søren Johansen. Bartlett korrektion af test i kointegrations modellen.(ATS-KU)
8/11	8/99	Seminar. Lisbeth B. Knudsen. The changing incidence of female sterilization in Denmark and the impact on fertility rates 1980-1993. (OU)
8/11	9/99	Seminar: Jan Parner. Causal reasoning in longitudinal studies. (BIOSTAT-KU)
10/11	9/99	Seminar. Mathieu Kessler (Universidad Politecnica de Cartagena): Computational aspects related to martingale estimating functions for a discretely observed diffusion. (ATS-KU)
11/11	8/99	Seminar. Nils Lid Hjort (Lund)
12/11	8/99	Martin Skjöld försvarar sin doktoravhandling (Lund)
15/11	9/99	Seminar. Lars Endahl. A semiparametric approach to the analysis of longitudinal, ordinal responses. (BIOSTAT-KU)
19/11	8/99	Seminar. Åsa Forsman. (Lund)
22/11 <b>23-24/11</b>	8/99 <b>8/99</b>	Seminar. Lisbet Groes. Medical statistics in Glaxo Wellcome (ou) Todagesmøde. ATS-AU (Tilmeldingsfrist 17.11)
6/12	8/99	Seminar. Grethe Banggaard. Marriage Patterns and Child mortality in nineteenth century denmark. (OU)
14/12	9/99	Juleforedrag i selskabet
14/12	9/99	Seminar. Robert Johnsen. Optimal Reinsurance – using a Value-at-Risk Approach. (FML-KU)

# Kalender 2000

(arrangementer annonceret i MEDDELELSER)

17-22/1	3/99	MaPhySto workshop on Computational Stochastics. (Århus) Http://www.maphysto.dk/events/compstoc2000. (Reg senest 1.10.99)
21-26/1	8/99	NorFa course on structural Equation models. Deadline.1.12.99
24-28/1	7/99	MaPhySto concentrated advanced course on Lévy Processes. (Reg senest 20.12.99)
20-25/5	7/99	Summer School on Stereology and Geometric Tomography. (Reg senest 1,3.00.
5-8/6	8/99	18th Nordic Conference in Mathematical Statistics, 2000.  Http://www.math.uio.no/~nordstat/ Deadline contribution 1-2-2000

#### Deadlines i 1999

Frist for indlevering af bidrag: MEDDELELSER udkommer
24. november I. december

## Deadlines i 2000

Frist for indlevering af bidrag:	MEDDELELSER udkommer		
24. februar	1. marts		
24. marts	3. april		
25. april	3. maj		
24. maj	2. juni		