Meddelelser, v/Morten Frydenberg
Institut for Biostatistik
Aarhus Universitet

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Næste nummer af "MEDDELELSER" udkommer 2. november 1998.

Bidrag til dette nummer skal være redaktøren i hænde senest

mandag den 26. oktober 1998.

Bidrag bedes sendt til:

Meddelelser, v/Morten Frydenberg
Institut for Biostatistik
Høegh-Guldbergs Gade 10
8000 Århus C.
eller med e-mail til: morten@biostat.aau.dk

Samme adresse bedes benyttet ved **indmeldelse** i DSTS og ved **adresseændring**.

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

Annoncering af stillinger er pr. 1. januar 1998 kr. 500 pr. side

MEDDELELSER

Dansk Selskab for Teoretisk Statistik

Foredrag i selskabet

Temamøde: Statistikundervisning i gymnasiet

Tid: Tirsdag den 27. oktober kl 17.00,
Sted: Auditorium 4, H.C.Ørsted instituttet

Er gymnasiets undervisning i statistik og sandsynlighedsregningen af en passende kvalitet?

Sikrer den at eleverne har de rigtige forudsætninger for at begynde på videregående uddannelser med et vist indhold af teoretisk statistik?

Sikrer den at de har de rigtige forudsætninger for at begynde på videregående uddannelser med statistik på "bruger-niveau"?

Sikrer den at de har forudsætninger for at kunne vurdere brug af statistik i medierne?

Inddrager undervisningen moderne tekniske hjælpemidler i det rigtige omfang?

Virker undervisningen relevant på eleverne?

Oplæg ved:

Inge Henningsen (Afd. for Teoretisk Statistik, KU),
Søren Vagner (fagkonsulent i matematik),
Michael Væth (Institut for Biostatistik, AU).

Øl og evt. spisning med foredragsholderen bagefter på Barcelona for de der har lyst.
Tilmelding til spisning skal ske til formanden på tlf. 3532 7918/3532 7901.

Phd afhandling

cand. merc. Flemming Grundtvig

Titel: Random effects models in business and social sciences

Tid: Fredag den 23. oktober 1998, kl. 14.00
Sted: Auditorium 513, Handelshøjskolen i København, Julius Thomsens Plads 10

23. årgang nr.8 Oktober 1998

Selskabets bestyrelse:

Formand: Peter Dalgaard Biostatistisk Afdeling Panum Instituttet Blegdamsvej 3 2200 København N	Tlf: 3532 7918 Fax: 3532 7907 e-mail: p.dalgaard@biostat.ku.dk
Kasserer Ernst Hansen Afdeling for Teoretisk Statistik Københavns Universitet Universitetsparken 5 2100 København Ø	Tlf: 3532 0773 Fax: 3532 0772 e-mail: erhansen@math.ku.dk
Redaktør: Morten Frydenberg Institut for Biostatistik Aarhus Universitet Høegh-Guldbergs Gade 10 8000 Århus C	Tlf: 8942 3167 Fax: 8942 3166 e-mail: morten@biostat.au.dk
Sekretær: Helle Andersen NOVO Krogshøjvej 53 2880 Bagsværd	Tlf: 4442 1957 Fax: 4442 1065 e-mail: hand@novo.dk
Jyske anliggender: Susanne Christensen Institut for Elektroniske Systemer Aalborg Universitet Frederik Bajersvej 7 9200 Aalborg Øst	Tlf: 9635 8080 9635 8861 *(direkte)* Fax: 9815 8129 e-mail: susanne@iesd.auc.dk
Indkøbschef: Peter Allerup Danmarks Pædagogiske Institut Hermodsgade 28 2200 København N	Tlf: 3181 0140 Fax: 3181 4551 e-mail: nimmo@dpi.dk

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

Generiske e-mail-adresser i selskabet:

Formand: fmd, formand, chair, chairman **Kasserer:** kass, kasserer, treas, treasurer
Redaktør: red, redaktoer, edit, editor **Sekretær:** sekr, sekretaer, secr, secretary
Jyske anliggender: jysk, jyskeanl, jutland
Indkøb: indk, indkoeber, suppl, supplier
Meddelelser: medd, meddelseler, newsl, newsletter
Bestyrelsen: best, bestyr, bestyrelse, board

Hvis man f.eks, skal skrive til formanden, så kan man bruge adressen: fmd@dsts.dk.

SYMPOSIUM I ANVENDT STATISTIK

25.-27. januar 1999
København

CALL FOR PAPERS

Næste Symposium i Anvendt Statistik afholdes i København den 25. til 27. januar 1999 af Amternes og Kommunernes Forskningsinstitut og Socialforskningsinstituttet.

Symposiets formål er at skabe et forum for udveksling af ideer og erfaringer med anvendelse af statistiske metoder på tværs af forskellige fagområder. Der lægges vægt på såvel metodik som fremstilling og fortolkning af resultater.

Personer, der vil bidrage med et indlæg på symposiet, bedes sende titel og et resumé på ca. 10 linjer til Peter Chr. Linde, Socialforskningsinstituttet, Herluf Trolles Gade 11, 1052 København K, e-mail: pcl@sfi.dk

SENEST DEN 10. OKTOBER 1998

De skriftlige indlæg vil blive publiceret i en bog, der udkommer i forbindelse med symposiet. Deadline for de skriftlige indlæg er 1. december. På symposiet præsenteres de skriftlige indlæg med et oplæg på op til en halv time med efterfølgende diskussion.

Hvis du ønsker at få tilsendt programmet når det foreligger i oktober, kan det ske til: Susan Jonassen, Socialforskningsinstituttet, Herluf Trolles Gade 11, 1052 København K, e-mail: suj@sfiAk

Seminar i matematisk statistik og sandsynlighedsregning

Afdeling for Teoretisk Statistik, Københavns Universitet
Seminarerne afholdes kl. 15:15 præcis i auditorium 10 på H.C.Ørsted Instituttet.
Der serveres te i lokale E325 kl. 15:00.

Onsdag den 7.oktober: Mathieu Kessler (University of Murcia):

Simple Estimating Functions for a Discretely Observed Diffusion

We consider a one-dimensional diffusion process X, with ergodic property, with drift $b(x,\theta)$ and diffusion coefficient $a(x,\theta)$ depending on an unknown parameter θ that may be multidimensional . We are interested in the estimation of θ and dispose, for that purpose, of a discretized trajectory, observed at n equidistant times $t_i = i\Delta, i = 0,\ldots,n$. We study a particular class of estimating functions of the form $sum \sum f(\theta, Xt_{i-1})$ which, under the assumption that the integral of f with respect to the invariant measure is null, provide us with a consistent and asymptotically normal estimator. We determine the choice of f that yields the estimator with minimum symptotic variance within the class and indicate how to construct explicit estimating functions based on the generator of the diffusion. Finally the theoretical study is completed with simulations.

Statistisk Kollokvium

Afdeling for Teoretisk Statistik, Aarhus Universitet
Kollokvierne afholdes kl. 14.15 - 15.15 i H2.28.
(Jens Ledet Jensen)

Thursday, 22 October: Vladimir Kalashnikov (Institute for Information Transmission Problems, Moscow):

Asymptotically correct bounds of geometric convolutions with subexponential components

Two-sided bounds of the geometric convolution with subexponential components are derived. Such a convolution can be viewed as a ruin probability (in risk theory), waiting time distribution (in queueing), a distribution of the 1st break-down time (in reliability), etc. In contrast to other known bounds, these have genuine asymptotic behaviour. They are derived with the help of a new characterization of subexponential distributions. Several examples with widely used subexponential distributions are considered

SEMINAR I ANVENDT STATISTIK

Biostatistisk Afdeling, Københavns Universitet
Seminaret afholdes kl. 15.15 i lokale 21.1.25, 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. 9. november: D. Gianola (Department of Animal Sciences, University of Wisconsin-Madison)

A longitudinal mixed effects probit model with an application to mastitis in cattle.

Mastitis is an inflammatory response of the mammary gland to invasive bacteria. It is the most economically important disease in dairy cattle production, worldwide. because treatment is relatively expensive, lowering susceptibility via genetic selection of superior animals is cost-effective. A Bayesian analysis of longitudinal mastitis records (absence-presence) taken in the course of lactation was undertaken. Data were 3341 test-day binary records from 329 first lactation Holstein cows scored for mastitis at 14 and 30 days (d) of lactation and every 30d thereafter; a "typical" lactation lasts about 10 months. Conditionally, the probability of a sequence for a given cow was the product of the probabilities at each test-day. The probability of infection at time t for the cow was a normal integral with an argument that was a function of "fixed" and "random" effects, and of time. Priors were normal (random effects) and uniform ("fixed" effects, covariance matrices), but proper. Models for the latent normal variable included the effects of: 1) year-month of test + a five-parameter linear regression function ("fixed", by age-season of calving) + genetic value of the cow + environmental effect peculiar to all records of the same cow + residual. 2) As in (1), excluding genetic value, but with five-parameter random genetic regressions for each cow, in addition to the fixed regressions. 3) A hierarchical linear model, where each of 3 parameters of the regression function for each cow followed a mixed effects structure. The joint posterior was augmented including all latent variables and all known ancestors of animals, to account for genetic covariances between cows properly. Computations were by Gibbs sampling, with a burn-in period of 20,000; analysis was based on 50,000 additional samples, drawn without thinning. Model 1 posterior mean of heritability (fraction of total variance accounted for by genetic differences) was .05. Model (2) heritabilities were: .27 (14d), .05 (60d), .03 (120d), .07 (305d). Model 3 heritabilities were .57 (14d), .14 (60d), .06 (120d) and .19 (305d). Bayes factors computed by taking harmonic means of likelihoods evaluated at the posterior draws were: .011 (Model 1/Model 2), .017 (Model 1/Model 3) and 1.535 (Model 2/Model 3). Probability of mastitis for "average" cow (Model 2) was: .06 (14d), .05 (60d) , .06 (120d) and .07 (305d). This procedure is more informative than a full-lactation 0-1 analysis employed in some animal breeding programs because stage of lactation at which mastitis occurs and, to some extent, duration of infection are recognized. Potential selection criteria from this model include: probability of no mastitis during lactation, probability of at most a certain number of episodes and expected number of days a cow has mastitis. Posterior distributions for the top and bottom cows are presented for some of these end-points.

in collaboration with R. Rekaya, S.L. Rodriguez-Zas and G.E. Shook, (University of Wisconsin-Madison, Wisconsin 53706, USA).

SEMINARER

Adeling for Matematik, Institut for Elektroniske Systemer, Aalborg Universitet
Seminarerne afholdes torsdage kl 14.00 i lokale E3-109
Alle er velkomne
(Martin Bøgsted Hansen)

1. oktober: Erik Parner (Department of Biostatistics, University of Aarhus)

Multivariate frailty modeller

Frailty modeller anvendes indenfor overlevelsesanalyse til at beskive korrelerede levetider. En af anvendelserne af disse modeller er adoptivstudiet, hvor levetiden af adoptivbørn, deres biologiske forældre og adoptiv forældre observeres, med henblik på undersøgelse af genetiske og miljømæssige faktors indflydelse på levetiden. I dette foredrag vil jeg give et overblik over forskellige typer af frailty modeller, basered på en analyse af adoptivstudiet.
Vært: Martin B. Hansen

8. oktober: E. Mendelsohn (University of Toronto)

Skew-Orthogonal Steiner Triple Systems

Two Steiner triple systems, $S_1 = (V, \mathcal{B}_1)$ and $S_2 = (V, \mathcal{B}_2)$, are *orthogonal* ($S_1 \perp S_2$) if $\mathcal{B}_1 \cap \mathcal{B}_2 = \emptyset$ and if $\{u, v\} \neq \{x, y\}$, $uvw, xyw \in \mathcal{B}_1$, $uvs, xyt \in \mathcal{B}_2$ then $s \neq t$. The solution to the existence problem for orthogonal Steiner triple systems, ($OSTS$) was a major accomplishment in design theory. Two orthogonal triple systems are *skew-orthogonal* ($SOSTS$, written $S_1 \wr S_2$) if in addition, we require $uvw, xys \in \mathcal{B}_1$ and $uvt, xyw \in \mathcal{B}_2$ implies $s \neq t$. Orthogonal triple systems are associated with a class of Room squares, with the skew orthogonal triple systems corresponding to skew Room squares. $SOSTS$ are much rarer than $OSTS$; for example $SOSTS(v)$ do not exist for $v = 3, 9, 15$. Furthermore a fundamental construction for the earlier $OSTS$ proofs when $v \equiv 3 \pmod 6$ cannot exist. In the case $v \equiv 1 \pmod 6$ we are able to show existence except possibly for 22 values, the largest of which is 1315. There are at least two non-isomorphic $OSTS(19)$s one of which is $SOSTS(19)$ and the other not. A $SOSTS(27)$ was found, implying the existence of $SOSTS(v)$ for $v \equiv 3 \pmod 6$ with 11758 possible exceptions, the largest of which is 148917. Finally we relax the conditions to look at two-fold triple systems $TTS(v)$ $(V, \mathcal{B})$ avoiding $uva, xyb, uvb, xya \in \mathcal{B}$ both where repeated blocks are forbidden and where they are permitted. Simultaneous translation into Graph Theory will be provided by the speaker. Joint work with Peter Dukes
Vært: Lars D. Andersen

15. oktober: Steen Andersson (Department of Mathematics, Indiana University, Bloomington)

Titel og abstract følger senere.

Vært: Steffen L. Lauritzen

29. oktober: Robert Sinclair (Department of Mathematics, Technical University of Denmark)

Automatic Differentiation in Computational Differential Geometry

Software for the computation and visualization of the cut locus on 2-dimensional manifolds is currently being developed. This new algorithm makes considerable use of a computational technique called automatic differentiation. The talk will begin with a general introduction to automatic differentiation, proceed with a description of how this technique is being applied to the geometrical problem at hand, and conclude with a presentation of geometrical data already won using the prototype. In particular, we have been examining the behaviour of the cut locus of a torus as the centre point moves from the outer to the inner equator.
Vært: Martin Raussen

Colloquiums Autumn 1998

Laboratory of Actuarial Mathematics, University of Copenhagen
H.C. Ørsted Institute, Lecture Hall 10
(Prof. Ragnar Norberg)

Tuesday October 20, 16.15-17.00: Claus Vorm Christensen, Aarhus University

Pricing catastrophe insurance products based on actually reported claims.

This talk deals with the problem of pricing a financial product relying on an index of reported claims from catastrophe insurance. The problem of pricing such products is that, at a fixed time in the trading period, we do not know the total claim amount from the catastrophes occurred. Therefore we have to price these products solely from knowing the aggregate amount of the reported claims at the fixed time point. This article will propose a way to handle this problem, and will thereby extend the existing pricing models for products of this kind. (Based on joint work with Schmidli, H. (1998)).

Tuesday October 20, 17.15-18.00: Jan Grandell, Kungliga Tekniska Högskolan

Simple approximations of ruin probabilities

A "simple approximation" of a ruin probability is an approximation using only some moments of the claim distribution and not the detailed tail behaviour of that distribution. Such approximations may be based on limit theorems or on more or *ad hoc* less arguments. The most successful simple approximation is certainly the De Vylder approximation, which is based on the idea to replace the risk process with a risk process with exponentially distributed claims such that the three first moments coincide. That approximation is known to work extremely well for "kind" claim distributions. The purpose of this paper is to analyse the De Vylder approximation and other simple approximations from a more mathematical point of view and to give a possible explanation why the De Vylder approximation is so good.

Maxicolloquium, Tuesday November 3

15.15 Paul Embrechts, Zürich:

On random recurrence equations and heavy tails

16.15 Marc Goovaerts, Leuven:

To be announced

17.15 Christian Hipp, Karlsruhe:

Stochastic control and ruin probabilities

We consider optimal new business strategies for a classical Lundberg risk process. Optimal bounded strategies with selling are bang bang and not realistic. Constraint (i.e. without selling) optimal strategies are again bang bang and not derived from Hamilton Jacoby Bellman equations. Numerical examples with phase type claim sized are given.

Institut for Statistik og Demografi
samt
Demografisk Forskningscenter

Department of Statistics and Demography
All seminar start at 10.30 am and take place in the meeting room of the Department of Statistics and Demography at Hollufgaard, building 2.
The seminars are open to all interested.

October 5. Elizabeth Hedlund Corder:
Does apolipoprotein E polymorphism determine the risk of survivability of cardio- and cerebrovascular diseases? Implications for mortality differential in late ages.

October 19. Orla Damkjær:
Simulation and reconstruction of personal histories: Intersubjective versus universal methods.

November 2. Larry S. Corder:
Living longer and feeling better.

November 16. Hans Chr. Johansen:
Danish population history 1600-1735.

November 30. Lisbeth B. Knudsen:
A discussion of concepts related to controlled fertility.

December 14. Bent Jørgensen:
Multivariate dispersion models.

Announcement
Second European Conference on
Highly Structured Stochastic Systems
14 - 18 September, 1999
Pavia, Italy

This conference will aim to present the state of the art of computational and statistical aspects of modelling, inference and computation in HSSS, with particular emphasis of applications of HSSS ideas in several fields, including genetics, biomedical research and epidemiology, environmental application, spatial statistics and expert systems. Also methodological aspects such as model choice and criticism, dynamic modelling, and non-parametric approaches will be part of the central theme.

The programme will have invited and contributed paper sessions, and poster sessions. Conference WEB page: http://www.unipv.it/hsss99/hsss.html.

Concentrated Advanced Course on
Product Integrals and Pathwise Integration
Lectures by R. Dudley and R. Norvaisa
January 7-8, 1999
University of Aarhus

On Thursday, January 7, and Friday, January 8, 1999, MaPhySto will, as part of a thematic period on Lévy Processes, Product Integrals and Pathwise Integration in January 1999 organize the above-mentioned Concentrated Advanced Course. The thematic period also comprises a Workshop on Pathwise Integration and Product Integrals, January 11-13, 1999, and a Conference on Lévy Processes: Theory and Applications, January 18-22, 1999.

Two leading experts have agreed to be principal lecturers for the Advanced Course:

- Professor Richard Dudley (MIT),
- Dr. Rimas Norvaisa (Institute of Mathematics and Cybernetics, Vilnius).

They recently finished a volume of Lecture Notes on the topic. Additional lectures will be given by other experts. The Course addresses PhD students, postdocs and researchers who want to learn about the history and recent developments in the classical approach to integration.

The Course focuses on the Riemann-Stieltjes integral and several of its extensions when neither integrator nor integrand have bounded variation. These integrals, as well as the product integral will be discussed with a view towards applications to sample functions of stochastic processes.

Among others, the following topics will be studied in the Course:

- The p-variation of various classes of stochastic processes.
- The relationship between p-variation and pathwise integration.
- The relationship between pathwise and stochastic integration.
- The relationship between product integrals and pathwise integration.
- Applications of pathwise integration, product integrals and related techniques.

The latter item is the main objective of the Workshop that takes place in the week following the Advanced Course. It is intended to bring together specialists from different areas such as probability theory, stochastic processes, statistics, physics, finance and analysis, and to discuss pathwise, stochastic and product integration techniques.

It is the main goal of the organisers and the principal lecturers to achieve a fruitful, perhaps controversial, discussion about pathwise integration techniques, their advantages and limits.

Support
No financial support is available. Participants are expected to have their expenses covered by their home institutions. Note however, that there is no registration fee.

Registration
Please register via the registation form located at www.maphysto.dk/events/LevyProc/CAC/register.html **as soon as possible** before December 1, 1998.
There is no **registration fee.**

More Information
Web-site: www.maphysto.dk.
E-mail: maphysto@maphysto.dk

Concentrated Advanced Course on
Stochastic Simulation
- with a view towards stochastic processes
Lectures by Søren Asmussen, Lund University
February 22-26, 1999
University of Aarhus

From Monday, Febrary 22, 1999 to Friday, February 26, 1999 MaPhySto will organize a Concentrated Advanced Course on Stochastic Simulation. The course will cover some main themes in the part of stochastic simulation outside of Markov chain Monte Carlo methods and random variate generation, in particular:

1. Simulation of steady-state characteristics
   (variance estimation, batch means, multiple replications, regenerative simulation)
2. Gradient estimation (infinitesimal perturbation analysis, the score function method)
3. Simulation of some special processes (Gaussian processes, Levy processes, solutions to SDE's).

Support
No financial support is available. Participants are expected to have their expenses covered by their home institutions. Note however, that there is no registration fee.

Registration
Please register via the registration form located at www.maphysto.dk/events/SAcourse99/register.html as soon as possible **before January 15, 1999.**
There is **no** registration fee.

More Information
Web-site: www.maphysto.dk. - E-mail: maphysto@maphysto.dk

MaPhySto **web-site: www.maphysto.dk**

MaPhySto Summer school on

Empirical Processes

University of Aarhus, 9- 20 August 1999

The Danish national research foundatin has recently established a Centre for mathmatical Physics and Stochastics (MaPhySto): The objective of the Centre is to strengthen the areas Mathematical Physics and Stochastics (and the interplay between these), by organizing conferences, summer schools and other activiteies in these areas.
From Monday, August 9, 1999 to Friday, August 20, 1999 MaPhySto will organize a summer school on Empirical Processes. Each of the following have agreed to give a series of lectures (7-9 lectures of 45 min.):

1. Uniform Central Limit Theorems by R. M. Dudley (MIT)
Summary: One of the main topics of empirical process theory is asymptotic normality of suitably normalized partial sums uniformly over classes of sets and functions. For the uniform convergence to hold there must be a limiting Gaussian process with sample continuity and boundedness. First, these properties of Gaussian processes will be treated in terms of metric entropy and the Talagrand-Fernique majorizing measure theorem. Then, combinatorial properties sufficient for uniform central limit theorems uniformly over all underlying probability measures will be studied. A good property for families of sets is finiteness of the Vapnik-Chervonenkis or VC index, also studied in computer learning theory. The VC property has various extensions to families of functions. Another useful property is bracketing, where families of fun ctions are covered by unions of brackets $[f_i, g_i]$, where $[f, g]$ is the set of measurable functions h with $f \le h \le g$, and there are suitable bounds of the number of brackets in relation to some distance between f_i and g_i in mean or mean square.
Some of the lectures will be based on parts of a book by the author, also called *Uniform Central Limit Theorems* to be published by Cambridge University Press, probably in the first half of 1999.

2. Empirical Processes at Work in Statistics by A.W. Van der Vaart (Amsterdam) & J.A. Wellner (Seattle)
Summary: The lectures of Van der Vaart and Wellner will focus on the use of empirical process methods in dealing with a variety of questions and problems in statstics. Our examples and applications will be drawn from problems concerning semiparametric models and non-parametric estimation for inverse problems. We will begin with a review of bounds for suprema of empirical processes, and will then discuss uses of these bounds in establishing:
a) consistency of M- and Z-estimators;
b) rates of convergence;
c) convergence in distribution of maximum likelihood, sieved and penalized maximum likelihood estimators

3. Empirical and Partial-sum Processes Revisited as Random Measure Processes by P. Gänssler (Munich)
Summary: In a general framework of so-called random measure processes (RMP's) we present uniform laws of large numbers (ULLN) and functional central limit theorems (FCLT) for RMP's yielding known and also new results for empirical processes and for so-called smoothed empirical processes based on data in general sample spaces. At the same time one obtains results for partial-sum processes with either fixed or random locations. Proofs are based on tools from modern empirical process theory as presented e.g. in Van der Vaart and Wellner [(1996): *Weak Convergence and Empirical Processes*; Springer Series in Statistics]. Our presentation will be also guided by showing up some aspects of the development of empirical process theory from its classical origin up to the present which offers now a wide variety of applications in statistics as demonstrated e.g. in Part 3 of Van der Vaart and Wellner [1996].

4. Convergence in Law of Random Elements and Sets by J. Hoffmann-Jørgensen (Aarhus)
Summary: The classical definition of convergence in law of random elements is founded on convergence of the upper expectation of continuous functions. This concept has served very well in the theory of law convergence of empirical processes when the underlying topological space is metrizable or at least has sufficiently many continuous functions. However, in the context of law convergence of random sets associated to empirical processes (e.g. zero-sets or max-sets), the concept trivializes because the natural topology (the upper Fell topology) has no non-constant continuous functions. In the lectures I shall present a new concept of law convergence (convergence in Borel law) which coincides with the classical definition in ``nice" topological spaces, and I shall demonstrate how this concept provides sensible limit theorems for random sets. In particular, we shall derive new and old results for law convergence of a certain class of estimators (J-estimators) which includes zero estimators and maximum estimators.

Besides the principal lectures, there will be a series talks by invited researchers in the area and the participating PhD's and PostDoc's. To each of the principal courses there will be Lecture Notes available.

Support
Limited support is available. Preference will be given to younger participants.

Registration
Please register via the registration form located at
http://www.maphysto.dk/events/EmpriProc99/register.html
before June 1, 1999. The registration fee is **DKK 400** (approx. $60).

More Information
Web-site: www.maphysto.dk - E-mail: maphysto@maphysto.dk
Local organizer: J. Hoffmann-Jørgensen, Department of Mathematical Sciences, University of Aarhus, Denmark. Tel (+45) 8942 3438 (direct) - (+45) 8942 3188 (secretary).
Fax (+45) 8613 1769. E-mail: hoff@inf.au.dk.

Kalender 1998

(arrangementer annonceret i MEDDELELSER)

Dato	Med. nr.	Aktivitet
1/10	8	Seminar. Erik Parner. Multivariate frailty modeller. (Aalborg).
5/10	8	Elizabeth Hedlund Corder: Does apolipoprotein E polymorphism determine the risk of survivability of cardio- and cerebrovascular diseases? (Stat-Dem-OU).
5-7/10	7	Course : Introduction to using STATA for medical statistics. (OU).
7/10	8	Seminar. Mathieu Kessler: Simple estimating functions for a discretely observed diffusion. (ATS-KU).
8/10	8	Seminar. E. Mendelshohn: Skew-orthogonal steiner triple systems. (Aalborg).
15/10	8	Seminar. Steen Andersson: Titel kommer senere. (Aalborg).
19/10	8	Orla Damkjær. Simulation and reconstruction of personal histories: Intersubjective versus universal methods. (Stat-Dem-OU).
19-23/10	7	Course. Marked Point Processses and Piecewise Deterministic Processes. (MaPhySto, ATS-AU).
20/10	8	Colloquium. Claus Vorm Christensen. Pricing catastrophe insurance products based on actually reported claims. (FML-KU).
20/10	8	Colloquium. Jan Grandell: Simple approximations of ruin probabilities. (FML-KU).
22/10	8	Seminar. Vladimir Kalashnikov: Asymptotically correct bounds of geometric convolutions with subexponential components. (ATS-AU).
23/10	8	Phd afhandling. Cand.merc Flemming Grundtvig: Random effects models in business and social sciences.
27/10	***8***	***Møde i selskabet om statistikundervisningen i gymnasiet.***
29/10	8	Seminar. Robert Sinclair.: Automatic differentiation in computational differential geometry. (Aalborg).
2/11	8	Seminar. Larry S. Corder: Living longer and feeling better. (Stat-Dem-OU).
3/11	8	Maxicolloquium. Paul Embrechts: On random recurrence equations and heavy tails. Marc Goovaerts: To be announced. Christian Hipp: Stochastic control and ruin probabilities. (FML-KU).
9/11	8	Seminar. D. Gianola: A longitudinal mixed effects probit model with an applicaiton to mastitis in cattle. (Biostat-KU).
10-14/11	8	Course: Queueing Network Therory. (MaPhySto, ATS-AU).
16/11	8	Seminar. Hans Chr. Johansen: Danish population history 1600-1735.(Stat-Dem-OU).
16-18/11	6	1st International Workshop on: Statistical Methodology in Non Clinical R&D.
24-25/11		***Todages møde i selskabet. (Panum, KU).***
30/11	8	Seminar. Lisbeth B. Knudsen: A discussion of concepts related to controlled fertility. (Stat-Dem-OU).
14/12	8	Seminar. Bent Jørgensen: Multivariate dispersion models. (Stat-Dem-OU).

Deadlines i 1998

Frist for indlevering af bidrag:	**MEDDELELSER udkommer**
26. oktober	2. november
24. november	1. december

Kalender 1999

Dato	Med. nr.	Aktivitet
7-8/1	8	Course. Product integrals and pathwise integration. (MaPhySto, ATS-AU).
25-27/1	8	Symposium i anvendt statistik. (København).
22-26/2	8	Course. Stochastic simulation. (MaPhySto, ATS-AU).
9-20/8	8	Summer School. Empirical Processes. (MaPhySto, ATS-AU).
14-18/9	8	Second European conference on highly structures stochastic systems.