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Ukonvoluteret



MEDDELELSER

Dansk Selskab for Teoretisk Statistik

Todagesmøde i Selskabet

30. september – 1. oktober 2003

Sted: Dam Auditoriet, Panum Institutet, Blegdamsvej 3, 2200 København N

Som tidligere annonceret afholdes dette efterårs 2-dagesmøde i selskabet som

25-års jubilæumssymposium for Biostatistisk Afdeling, Københavns Universitet

Tilmelding til Nanna Nørlem Andersen, Institut for Matematik og Fysik, KVL, nna@kvl.dk, senest mandag den 15. september 2003.

Deltagegebyr: 550 kr. for voksne (incl. ph.d.-studerende), 225 kr. for studerende (bemærk den let forhøjede pris for voksne). Betaling skal ske til DSTS's konto i Jyske Bank, reg.nr. 7853, konto 1117188 – med tydelig angivelse af hvem betalingen vedrører.

Nærmere oplysninger, herunder fuldt program med abstracts inde i bladet, samt på <http://www.dsts.dk> og www.biostat.ku.dk.

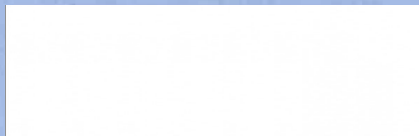
Returneres ved varig adresseændring

Næste nummer af "MEDDELELSER" udkommer 1. oktober 2003.

Bidrag til dette nummer skal være redaktøren i hænde senest

tirsdag den 23. september kl. 12.00.

Bidrag bedes sendt til:



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

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

Annoncering af stillinger er kr. 500 pr. side. Indstik, der ønskes sendt i konvolut sammen med Meddelelser, kr. 1500 pr. standard A4 side.

Selskabets bestyrelse:

Formand: Per Bruun Brockhoff Institut for Matematik og Fysik KVL Thorvaldsensvej 40 1871 Frederiksberg C	Tlf: 3528 2361 Fax: 3528 2350 e-mail: pmb@kvl.dk
Kasserer: Helle Sørensen Institut for Matematik og Fysik KVL Thorvaldsensvej 40 1871 Frederiksberg C	Tlf: 3528 2386 Fax: 3528 2350 e-mail: helle@dina.kvl.dk
Redaktør: Judith L Jacobsen H. Lundbeck A/S Ottiliavej 9 2500 Valby	Tlf: 3643 3921 Fax: 3643 8273 e-mail: JLJa@lundbeck.com
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Næstformand: Henrik Madsen Institut for Matematiske Modellering Bygning 321 DTU 2800 Kgs. Lyngby	Tlf: 4525 3408 Fax: 4588 2673 e-mail: hm@imm.dtu.dk
Webmaster: Kim Emil Andersen Institut for Matematiske Fag Aalborg Universitet, Frederik Bajersvej 7 9200 Aalborg Øst	Tlf: 9635 8849 Fax: 9815 8129 e-mail: emil@math.auc.dk

Selskabets www-adresse: [Http://www.dsts.dk](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

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

Todagesmøde i Selskabet

30. september – 1. oktober 2003

25-års jubilæumssymposium for Biostatistisk Afdeling, Københavns Universitet

Sted: Dam Auditoriet, Panum Institutet, Blegdamsvej 3, 2200 København N

Tilmelding til Nanna Nørlem Andersen, Institut for Matematik og Fysik, KVL, nna@kvl.dk, senest mandag den 15. september 2003.

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PROGRAM

Tuesday, 30 September 2003:

13.00-13.15: Welcoming Remarks

13.15-14.00: Odd Aalen, Oslo:
"Quasi-stationary distributions in survival analysis"

14.00-14.45: Ørnulf Borgan, Oslo:
"Using martingale residuals to assess goodness-of-fit in nested case-control studies"

14.45-15.15: Coffee/tea

15.15-16.00: Richard Gill, Utrecht:
"Quantum Counting Processes"

16.00-16.45: Michael Væth, Århus:
"A simple approach to power calculations in logistic regression and Cox regression models"

18.00- : Dinner at Park Cafe, Østerbrogade 79, 2100 Copenhagen Ø

Wednesday, 1 October 2003:

10.00-10.45: Doug Altman, Oxford:
"Assessing the quality of randomised trials: the seduction of simplicity"

10.45-11.15: Coffee/tea

11.15-12.00: Juni Palmgren, Stockholm:
"Strategies for handling intermediate variables in the causal pathway from exposure to disease"

12.00-12.45: Robert Gentleman, Boston:
"Graphs, EDA and computational biology"

12.45-13.45: Lunch at the canteen, Panum Institutet

13.45-14.30: David Clayton, Cambridge:
"Instrumental variables and "Mendelian randomization": the role of genetics in establishing environmental causes"

15.00-17.00: Reception at "Sofastuen", Panum Institutet

Quasi-stationary distributions in survival analysis

Odd O. Aalen

Section of Medical Statistics, University of Oslo, Norway.

Abstract:

In survival and event history analysis the focus is usually on the mere occurrence of events. Not much emphasis is placed on understanding the process leading up to these events. The simple reason for this is that these processes are usually unobserved. However, one may consider the structure of possible underlying processes and draw some general conclusions from this. One important concept being of use here is quasi-stationarity. These are stationary distributions that arise on transient spaces where probability mass is continuously being lost to some set of absorbing states. Due to this leaking of probability mass, the limiting distribution is just stationary in a conditional sense, that is, conditioned on non-absorption. Quasi-stationarity is a research theme in stochastic process theory, with several established results, although not too much work has been done.

I shall explain the use of this concept in survival analysis. Stochastic models based on diffusion and Levy processes will be mentioned. As illustrated by a medical example, these ideas are not just theory, but are useful for understanding practical problems.

USING MARTINGALE RESIDUALS TO ASSESS GOODNESS-OF-FIT FOR NESTED CASE-CONTROL STUDIES

Ørnulf Borgan

Department of Mathematics, University of Oslo, Norway.

Abstract:

Cox regression and other relative risk regression models are much used to assess the influence of exposure variables and other covariates on mortality or morbidity. Estimation in these models requires ascertainment of covariate values for all individuals in a cohort even when only a small fraction of these get diseased or die ("fail"). This may be very costly, or even logistically impossible, in large epidemiological studies. Nested case-control studies, where covariate information is collected for all failing individuals ("cases"), but only for a sample of the non-failing ones ("controls") then offer useful alternatives. In the talk I will review how it is convenient to formulate nested case-control studies in a counting process framework, and I will show how this formulation readily provides us with martingale residual processes that can be used to assess the model fit for nested case-control data.

Quantum Counting Processes

Richard Gill

Department of Mathematics, University of Utrecht, The Netherlands.

Abstract:

It turns out that someone who knows about statistical models for counting processes is well equipped to enter the wonderful world of quantum information (quantum computing, quantum stochasticity, ...). To prove this claim I will discuss some applications of martingale methods, and applications of missing data methods (but not the EM algorithm), to Bell's (1964) inequalities and the Aspect experiment. This famous experiment (carried out by Alain Aspect in 1982 in Orsay) is supposed to show that the real world cannot be explained by classical physics. More precisely: everyone knows that the world is perfectly described by quantum mechanics, but maybe there is a classical hidden layer (missing data!) behind, which explains quantum mechanics?

The talk will be aimed at people (e.g., most statisticians) who feel a bit uncomfortable when other people start talking about quantum physics.

References:

Surf to <http://arxiv.org/find/quant-ph>, mark the check-box "all years", and do a search on Author=Gill. Or take a look at <http://www.math.uu.nl/people/gill>

A SIMPLE APPROACH TO POWER CALCULATIONS IN LOGISTIC REGRESSION AND COX REGRESSION MODELS

M. Væth¹ and E. Skovlund²

¹Department of Biostatistics, University of Aarhus, Århus, Denmark

²Section of Medical Statistics, University of Oslo, Oslo, Norway

Statistical software packages for power and sample size calculations usually cover one- and two-sample problems, but less frequently offer calculation for regression problems and then primarily for standard linear regression. For a given regression problem it is, however, possible to identify a suitably defined equivalent two-sample problem for which the desired result is available. The power or sample size thus obtained will then also apply to the regression problem.

For a standard linear regression model the equivalent two-sample problem is obtained by selecting two equally sized samples for which the difference of the means equals the slope times twice the standard deviation of the independent variable and with a common standard deviation equal to the root mean square error in the linear regression model. For generalised linear models and for Cox regression model the situation is more complicated, but an approximately equivalent two-sample problem may also be identified here. In particular, we show that for logistic regression and Cox regression models the equivalent two-sample problem is again obtained by selecting two equally sized samples for which the parameters differ by the slope times twice the standard deviation of the

independent variable and further requiring that the overall expected number of events is unchanged. In a simulation study we examine the validity of this approach to power calculations in logistic regression and Cox regression models. Several different covariate distributions are considered for selected values of the overall response probability and a range of alternatives. For the Cox regression model we consider both constant and non-constant hazard rates.

The results show that in general the approach is remarkably accurate even in relatively small samples. Some discrepancies are, however, found in small samples with few events and a highly skewed covariate distribution. Comparison with results based on alternative methods for logistic regression models with a single continuous covariate indicates that the proposed method is at least as good as its competitors. The method is easy to implement and therefore provides a simple way to extend the range of problems that can be covered by the usual formulas for power and sample size determination.

Assessing the quality of randomised trials: the seduction of simplicity

Doug Altman

Cancer Research UK, Medical Statistics Group, Oxford, UK.

Abstract:

The increasing need to make summary recommendations from a body of evidence has led to the idea of grading the evidence on a topic. Systems for grading levels of evidence are flawed as they focus on the type of evidence, not its quality. The strength of evidence of a body of studies clearly depends on the quality of the individual studies, and so quality assessment is a standard part of the systematic review process. However, many rely on scales and scores to assess quality - I will illustrate the dangers of this approach using specific trials. Publication biases are an additional major concern for systematic reviewers: bias may arise when some studies are not published or published reports present only selected results. Selective reporting has so far lacked empirical evidence. I will describe two recent research projects, one based on trials in PubMed and the other carried out in Copenhagen, that demonstrate that selective reporting of outcomes is common in reports of randomised trials. The findings indicate that many meta-analyses may produce inflated estimates of treatment effect.

Strategies for handling intermediate variables in the causal pathway from exposure to disease

Juni Palmgren

Dept of Mathematical Statistics, Stockholm University and

Dept of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm

We present a framework for separating the direct effect of an exposure from the effect via an intermediate variable. Using notions of principal stratification based on potential outcomes (Frangakis and Rubin. *Biometrics* 2002; 58, 21-29) we formulate a 'causal' model for the effect of hormone replacement therapy on breast cancer risk, accounting for hormone users being more intensely surveyed with mammography than non-users. If mammography screening is ignored early detection is likely to induce spurious association between hormone use and breast cancer incidence, even in

the absence of any real effect. Conditioning on mammography screening does not protect against bias. The proposed model is an extension of the approach for disentangling direct and indirect effects proposed by Joffe and Colditz (*Statistics in Medicine* 1998; 17, 2233-49).

Graphs, EDA and Computational Biology

Robert Gentleman

Department of Biostatistics, Harvard School of Public Health, Boston, USA.

Abstract:

Graphs provide a unique data structure for exploring biological data. There are many different graphs that can be constructed based on biologic data. These include metabolic pathways, protein-protein interactions as well as co-citation of genes in the scientific literature.

In this talk I will consider various methods of using graphs and their properties to perform exploratory data analysis (EDA) on data from a microarray experiment using different graphs based on biological meta-data.

I will introduce a number of software packages which have recently been developed as part of the Bioconductor project.

Instrumental variables and "Mendelian randomization": the role of genetics in establishing environmental causes

David Clayton

Cambridge Research Institute of Medical Research, Cambridge, UK.

Abstract:

The use of "instrumental variables" in the estimation of functional relationships between variables subject to measurement error has a long history. This body of theory has attracted much recent interest in epidemiology in the context of correcting for "regression dilution" of effects of, for example, dietary exposures. The key assumption, difficult to guarantee in practice, is of conditional independence of instrumental variable and measurement error given the true value of the causal variable. The idea also has application in estimating causal effects in the presence of unmeasured confounders. Here the key assumption is of conditional independence between instrumental variable and confounders given the true causal variable. It has recently been noted that genetic epidemiology provides situations in which this idea can be used to establish causality for environmentally modifiable variables. If genotype is related to the putative causal variable, it may be treated as an instrumental variable, "Mendelian randomization" assuring that the necessary conditional independence assumption is met.

SEMINAR I ANVENDT STATISTIK

Alle seminarerne afholdes på Panum Institutet, Blegdamsvej 3. (Indgangen Nørre Alle 20 kan også benyttes). Der serveres te i Biostatistisk Afdeling på gangarealet (33.4.11) en halv time før.

Mandag d. 15. September 2003, lokale 31.01.4a

kl. 15.15:

Building Measurement Models from Scratch

Henk Kelderman
Vrije Universiteit, Amsterdam
The Netherlands

Measurement models that are suitable to test whether a set of items measure the same attribute are developed. The models are derived from some basic principles: Common Collateral Variables, Exchangeability, Marginal Freedom, Scale Types, and Latent Traits. We consider nominal and metric items. The models yield optimal test score functions that measure the attribute. Latent trait restrictions are imposed on the test scores to improve the identification of models for metric items. Considering exchangeability and marginal freedom, the conclusion is warranted that discrete measurement models should be loglinear.

Mandag d. 22. September 2003, lokale 31.01.4a

kl. 15.15:

Nonlinear Estimation and Confidence Regions: A Biological Case Study

Andrea De Gaetano
Laboratorio di Biomatematrica, CNR IASI "A. Ruberti", Rome
Italy

The link between theoretical model development and practical applications is the parameter estimation process, whereby available experimental observations are used to compute the most appropriate estimates of the model's structural parameters, in a framework of suitable statistical hypotheses. The parameter estimates thus derived should be sufficiently reliable, and a measure of this reliability should be part of the output of the parameter estimation process. In the present talk a worked example for a cell population model, described by a single nonlinear ordinary differential equation in three parameters, is used as a vehicle to highlight some issues concerning the parameter estimation process and in particular the post-optimality analysis leading to an estimate of parameter variability and of the shape of the parameter confidence regions. The degree of nonlinearity of the model at the optimum is assessed and conclusions are drawn with respect to the applicability of the usual linearization procedures for the approximate determination of the parameter confidence regions. Finally, in the context of sensitivity analysis, the relationship between standard analytical sensitivity analysis and a Monte Carlo procedure designed to explicit the effects of parameter perturbations in a real noisy situation is investigated.

Per Kragh Andersen

Forskerskole i biostatistik

Forskeruddannelsesrådet har netop bevilget i alt 4,2 mio. kr. over årene 2004 til 2008 til en landsdækkende forskerskole i biostatistik med Niels Keiding som leder.

Bevillingen er et resultat af en ansøgning udarbejdet i et samarbejde mellem de fleste danske biostatistiske miljøer:

Københavns Universitet (biostatistik, matematisk statistik, bioinformatik)
DTU (informatik og matematisk modellering)
Landbohøjskolen (biostatistik)
Syddansk Universitet (matematisk statistik, medicinsk statistik)
Aarhus Universitet (biostatistik, matematisk statistik)
Aalborg Universitet (matematisk statistik)
Novo Nordisk
Lundbeck
LeoPharma
Ferring
Danmarks JordbrugsForskning
Københavns Amts Forskningscenter for Forebyggelse og Sundhed
Statens Institut for Folkesundhed
Arbejdsmiljøinstituttet
Statens Seruminstitut (epidemiologisk forskning)
H:S Institut for Sygdomsforebyggelse
Danmarks Fiskeriundersøgelser

Det er hensigten at integrere arbejdet i Forskerskolen med det påbegyndte samarbejde i Medicon Valley Academy regi om biostatistik i Øresundregionen.

Niels Keiding

COURSE ANNOUNCEMENT

Title: An introduction to applied physiological modelling.

Course: 2003-4-nyhed

Purpose and contents: The course covers general deterministic mathematical modelling of physiological dynamics with worked examples in endocrinology/metabolism and generalizations to stochastic differential models. Topics: the use of tracers, compartmental models, environmental constraints, numerical integration of nonlinear differential equations, qualitative study of the solutions for a dynamical system, delay differential equations, parameter estimation by functional minimization, models with system error, estimating structural and noise parameters, parameter confidence regions, model selection criteria. Examples from Glucose/Insulin modelling and Pulmonary Vascular Pressures.

Participants: Ph.D. students and researchers within medicine and biostatisticians. A basic mathematical knowledge will be assumed. Max. 20 participants.

Form: Lectures and class exercises. **Language:** English.

Course director: Associate Professor Peter Dalgaard, Department of Biostatistics, University of Copenhagen.

Teachers: Andrea De Gaetano, CNR IASI, Laboratorio di Biomatematrica, Rome, and Susanne Ditlevsen, Department of Biostatistics, University of Copenhagen.

Time: 14 November from 9-12, 17, 18 and 19 November, from 13-16 (12 hours).

Place: The Panum Institute, Blegdamsvej 3, DK-2200 Copenhagen N.

Nyhed

Medicon A/S og BioData Services ApS er gået sammen

Sammenslutningen af den rent kliniske konsulent virksomhed Medicon A/S, Birkerød og statistik og data management konsulent firmaet BioData Services er nu en realitet. Under fælles navnet Medicon A/S arbejder statistik og data management funktionen fra kontorerne på datavej 24 i Birkerød under navnet Medicon Biometrics. Samlet har Medicon A/S nu over 50 ansatte. Virksomhedens kundegrundlag er bredt såvel terapeutisk som geografisk og en udvikling er sat i gang hvor de fælles engagementer giver basis for yderligere samlet vækst. Således forventer Medicon Biometrics at fordoble sin medarbejder stab henover det nærmeste års tid og de første er da også allerede ansat. Foreløbig har virksomheden stadig 3 bio-statistikere, men også dette antal vil blive forøget.

STATISTIKER

Til Biostatistisk afsnit i Kvalitetssikringsafdelingen, Statens Serum Institut, søges en statistiker til ansættelse snarest. Biostatistisk afsnit er en serviceafdeling, som yder statistisk rådgivning og udfører statistiske analyser i de forsknings- og udviklingsprojekter, som instituttet indgår i. Afsnittets hovedopgave er at supportere instituttets produktion og udvikling af lægemidler. Ud over den her annoncerede stilling består afsnittet p. t. af 3 statistikere og 2 sekretærer/data managers.

Jobbet

- Planlægning og analyse af produktionsrelaterede valideringsforsøg
- Planlægning og analyse af bioassays, herunder styrkebestemmelse af vacciner
- Generel statistisk rådgivning i forbindelse med instituttets forskningsprojekter
- I samarbejde med Medicinsk afdeling at planlægge, analysere og afrapportere de kliniske forsøg som skal udføres med henblik på at opnå myndighedsgodkendelse af SSI's nye lægemidler

Kvalifikationer

- Matematisk-Statistisk kandidatgrad eller tilsvarende
- Kendskab til SAS-systemet
- Gode skriftlige formuleringsevner (engelsk)
- Kendskab til validering eller kliniske forsøg vil være en fordel

Løn- og ansættelsesvilkår

I henhold til overenskomsten for akademikere i Staten mellem Finansministeriet og AC. Til stillingen er knyttet et kvalifikationstillæg.

Information

Kan fås hos afdelingsleder Anders Mørup Jensen, tlf. 3268 3284.

Ansøgning

Ansøgning mærket "64002113" skal være Personaleafdelingen i hænde senest tirsdag den 16. september 2003. Ansættelsessamtaler forventes afholdt i uge 39-40.

Statens Serum Institut
Personaleafdelingen
Artillerivej 5
2300 København S

EURASIP Journal postings:

EURASIP Journal on Applied Signal Processing has published the following special issue online. Please visit the journal's web site for links to abstracts and full-text articles:

Special Issue on Genetic and Evolutionary Computation for Signal Processing and Image Analysis

- o Foreword, David E. Goldberg
- o Editorial, Riccardo Poli and Stefano Cagnoni

EURASIP Journal on Applied Signal Processing has published the following special issue online. Please visit the journal's web site for links to abstracts and full-text articles:

Special Issue on Neuromorphic Signal Processing and Implementations

- o Best Paper Award 2001-2002
- o Editorial, Shihab A. Shamma and Andre van Schaik

EURASIP Journal on Applied Signal Processing has published the following special issue online. Please visit the journal's web site for links to abstracts and full-text articles:

Special Issue on Rapid Prototyping of DSP Systems

- o Editorial, Magdy Bayoumi, Shuvra S. Bhattacharyya, and Rudy Lauwereins

Please visit <http://www.eurasip-jasp.org> for more information about the journal. Request a free sample copy of the journal at the journal's web site. EURASIP JASP publishes as many issues as required based on the flow of high-quality manuscripts and current scheduled special issues. To submit a proposal of a special issue, please contact the journal's editor-in-chief.

Call for Papers

"EURASIP Journal on Wireless Communications and Networking" welcomes submissions of original manuscripts. Manuscripts should be submitted using the journal manuscript tracking system at the journal web site <http://www.eurasip-jwcn.org>.

Course title. Advanced topics in statistical computing interfaces.

Purpose and contents. The course will focus on recent developments in statistical computing interfaces. Specific themes will be:

- Interfacing with ESS (Emacs Speaks Statistics, an editor shell for dealing with many statistical computing languages)
- High performance computing, including parallel computing via message passing interfaces
- High dimensional visualization using ORCA and OpenGL

Participants. Mainly statisticians and engineers. Max. 16 participants.

Form. Lectures and computer labs.

Language. English.

Course director. Lektor Peter Dalgaard

Teachers. Professor Anthony J. Rossini, Department of Medical Education and Biomedical Informatics, University of Washington, Seattle, and Biostatistics, Fred Hutchinson Cancer Research Center.

Time. Two full days (9:15-16:00), October 6th and 10th, 2003 (12 hours).

Place. Panum Institute.

Fee. None for Ph.D.-students at the Faculty of Health Sciences. For others approx. 1200 DKK

Website: <http://biostat.ku.dk/~pd/statcomp-2003>

Course secretary. Susanne Kragkov, Department of Biostatistics, Blegdamsvej 3, 2200 København N. Tel. 35 32 79 01.

Registration. Before September 12, 2003. The application form must be sent to:

The Ph.D.-secretariat
Blegdamsvej 3
DK-2200 Copenhagen N

<http://www.sund.ku.dk/studieInfo/Blanketter/Ph.D/ansogningsskema.doc>

<http://www.sund.ku.dk/studieInfo/uddannelser/ph.d/kurser/kursusvalg.htm>

Seminar i matematisk statistik og sandsynlighedsregning:

Seminaret afholdes kl. 15:15 i auditorium 10 på H.C. Ørsted's Institutet. Der serveres te i lokale E325 kl. 15:00.

Onsdag den 10. september 2003: Professor Søren Johansen (Københavns universitet)

Title: A small sample correction of the Dickey-Fuller test

Abstract: We consider the likelihood ratio test for the hypothesis $\pi = \phi = 0$, in the autoregressive model for x_t

$$\Delta x_t = \pi x_{t-1} + \phi t + \sum_{i=1}^{k-1} \gamma_i \Delta x_{t-i} + \alpha + \varepsilon_t$$

where ε_t are i.i.d. $N(0, \sigma^2)$, see Dickey and Fuller (1981). The asymptotic distribution of $-2 \log LR(\pi = \phi = 0)$, under the assumption of i.i.d. errors with mean zero and finite errors is given by

$$-2 \log LR(\pi = \phi = 0) \xrightarrow{w} \int_0^1 (dB) F' \left(\int_0^1 F F' du \right)^{-1} \int_0^1 F dB,$$

where B is a standard Brownian motion on $[0, 1]$ and

$$F(u) = \begin{pmatrix} B(u) - \bar{B} \\ u - 1/2 \end{pmatrix}.$$

That is, the Brownian motion $B(u)$ and u corrected for a constant on the unit interval. The purpose of this note is to investigate for this test the small sample correction derived in Johansen (2002) for the test for cointegrating rank. We find a more explicit form for the correction and investigate the relevance by simulations. This shows that, for parameter values close to the $I(2)$ boundary ($\sum_{i=1}^k \gamma_i \approx 1$), the test may have size distortions, and that the correction factor helps somewhat.

The reduction of the general result is possible by means of some identities that may have independent interest. One of these is

$$\left\{ \frac{1}{1-p_i} \right\} \left\{ \frac{1}{1-p_i p_j} \right\}^{-1} \left\{ \frac{1}{1-p_j} \right\} = \sum_{i=1}^l \frac{1+p_i}{1-p_i}$$

valid for $p_i \neq 1$.

Onsdag d. 17. sept. 2003: Pilar Poncela (Universidad Autonoma de Madrid)

Title: To be announced

Kalender 2003

(arrangementer annonceret i MEDDELELSER)

Dato	Med. nr.	Aktivitet
15/9	6/03	Seminar: Biostatistics: Henk Kelderman (Vrije Universiteit, Amsterdam, The Netherlands): Building Measurement Models from Scratch
22/9	6/03	Seminar: Biostatistics: Andrea De Gaetano (Laboratorio di Biomatematrica, CNR IASI "A. Ruberti", Rome, Italy): Nonlinear Estimation and Confidence Regions: A Biological Case Study
30/9 - 1/10	3/03	To-dages møde i DSTS, Biostatistics, Panum Institutet, København
26/10 - 28/10	5/03	Kursus: Biostatistics, Panum Institutet, København: Practical Statistical Analysis of DNA Microarray Data

Husk! Redaktøren har ændret E-mail adresse: Brug red@dsts.dk

Deadlines i år 2003

Frist for indlevering af bidrag:

23. september
23. oktober
21. november

MEDDELELSER udkommer

1. oktober
1. november
1. december

Nyt om Navne

Søren Andersen er flyttet fra Statistics til Biostatistics, indenfor Novo Nordisk i Juli.

Peter Thyregod har skiftet fra Statcon ApS til Novozymes per 1. august, og arbejder nu sammen med Trine Kvist i kvalitetsafdelingen. Jesper Frickmann er flyttet til Novozymes's site i Franklinton, USA.

Pr. 1 september starter Niels Zeuten og Niels Væver Hartvig hos Statistics, Novo Nordisk. Begge som statistiker.

Følgende medlemmers Meddelelser kommer retur. Ved du hvor de findes, så meddel venligst adressen pr. E-mail til red@dsts.dk
Bettina Graversgaard tidl. Ålborg Universitet; Knud Juel; Anette Gæde; Svend Jesper Knudsen tidl. Odense Universitet.