

BREV  
Ukonvolutteret



# MEDDELELSER

Dansk Selskab for Teoretisk Statistik

**Sidste nummer af Meddelelser**

**Generalforsamling 22. februar 2011**

**Seminarer, kurser, workshops**

**Stillinger**

**Nyt om navne**

Returneres ved varig adresseændring

Dansk Selskab for Teoretisk Statistik Bestyrelse 2010	
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Søren Feodor Nielsen Institut for Finansiering, Center for Statistik CBS Tlf: 38153515	
<b>Næstformand</b>	<a href="mailto:nfnd@dsts.dk">nfnd@dsts.dk</a>
Anders Tolver Jensen Institut for Grundvidenskab og Miljø/Statistics LIFE, Københavns Universitet Tlf: 35332337	
<b>Kasserer</b>	<a href="mailto:kass@dsts.dk">kass@dsts.dk</a>
Malene Højbjerg Novo Nordisk A/S Tlf: 30 79 62 09	
<b>Sekretær</b>	<a href="mailto:sekr@dsts.dk">sekr@dsts.dk</a>
Esben Agerbo National Centre for Register-based Research Faculty of Social Sciences University of Aarhus Tlf: 89 42 68 15	
<b>Webmaster</b>	<a href="mailto:web@dsts.dk">web@dsts.dk</a>
Klaus Kaae Andersen Kræftens Bekæmpelse Statistik og Epidemiologi Tlf: 3525 7655	
<b>Redaktør</b>	<a href="mailto:red@dsts.dk">red@dsts.dk</a>
Charlotte Hindsberger Novo Nordisk Tlf: 30 79 65 92	

Dansk Selskab for Teoretisk Statistik (DSTS se <http://www.dsts.dk>), har til formål at fremme den statistiske videnskab og dens anvendelser.

Indmeldelse og adresseændring i DSTS gøres via <http://www.dsts.dk/da/index.html>.

Selskabet har en elektronisk nyhedsliste E-Meddelelser, se <http://www.dsts.dk/da/index.htm>.

Dette er sidste nummer af den trykte version af **Meddelelser**. Fremover vil kun den elektroniske nyhedsliste og hjemmesiden blive benyttet.

Bidrag og stillingsopslag til E-Meddelelser sendes til redaktøren - [red@dsts.dk](mailto:red@dsts.dk)

## Sidste nummer af Meddelelser

Meddelelser modtager stadig færre bidrag; i år (2010) er et enkelt nummer faktisk blevet aflyst fordi der intet var af trykke i det. Økonomien i at udgive Meddelelser bliver heller ikke bedre: Der indrykkes færre stillingsannoncer og portoen stiger.

Bestyrelsen mener at indholdet af Meddelelser lige så godt (hvis ikke bedre) kunne lægges på en velfungerende hjemmeside og distribueres via selskabets mailingliste. Bestyrelsen har derfor besluttet at nedlægge Meddelelser. Dette nummer af Meddelelser er dermed det sidste, der udkommer.

Når Meddelelser ikke længere udkommer, er det naturligvis vigtigt at selskabets hjemmeside kommer til at fungere bedre end den gør i dag. Dette vil være en af bestyrelsens vigtigste arbejdsopgaver i de kommende år.

Bestyrelsen vil gerne opfordre alle selskabets medlemmer til at tilmelde sig selskabets mailingliste **e-medd**, hvis man ikke allerede er på listen. Det gøres lettest ved at gå ind på <http://www.dsts.dk/mailman/listinfo/e-medd> og tilmelde sig der. Man behøver blot angive sin email-adresse og trykke **Subscribe**, men bestyrelsen opfordrer dog til at man også opgiver sit navn og evt vælger et password. Såfremt man af en eller anden grund ikke kan finde ud af at tilmelde sig mailingliste er man velkommen til at sende en mail til [sekr@dsts.dk](mailto:sekr@dsts.dk); bestyrelsen vil så gøre sit bedste for at hjælpe med tilmeldingen.

## Generalforsamling 2011

Den 22. februar, klokken 17.15, SP113 – IBM Auditoriet,  
Solbjerg Plads 3, 2000 Frederiksberg

### Dagsorden:

#### 1. Bestyrelsens beretning fremlægges til godkendelse

Beretningen findes andetsteds i dette nummer

#### 2. Regnskabet fremlægges til godkendelse

Regnskabet findes andetsteds i dette nummer

#### 3. Valg af bestyrelsesmedlemmer

Charlotte Hindsberger og Malene Højbjerg har siddet i to perioder og kan ikke genvælges. Esben Agerbo har siddet i en periode og ønsker ikke genvalg. Bestyrelsen foreslår Kajsa Kvist, Kasper Klitgaard Bertelsen og Karl Bang Christensen.

#### 4. Valg af revisor

#### 5. Behandling af fremsendte forslag

Bestyrelsen foreslår at bestyrelsen fra generalforsamlingen 2012 består af 5 medlemmer mod i dag 6, og at vedtægterne ændres så de afspejler denne ændring. Grunden hertil er at der ikke er egentlige arbejdsopgaver til 6 medlemmer. Såfremt generalforsamlingen godkender dette forslag, så skal vedtægternes § 6 ændres til følgende:

Bestyrelsen består af 5 medlemmer. De 5 bestyrelsesmedlemmer vælges på generalforsamlingen for 2 år ad gangen, således at der i lige år afgår 2 og i ulige år 3 medlemmer. Ingen kan være medlem af bestyrelsen mere end 4 år i træk.

En kandidat til bestyrelsen skal være foreslået af mindst 5 medlemmer af selskabet. Hvert medlem kan højst være stiller for 1 kandidat. Herudover kan bestyrelsen foreslå det nødvendige antal kandidater, hvis ingen andre gør det. Bestyrelsen har pligt til at stille forslag til kandidater, hvis ingen andre gør det.

Alle valg bortset fra valg af revisor sker i en valgomgang. Hvert medlem kan på stemmesedlen anføre op til 3 kandidater. Udover at stemme på generalforsamlingen kan hvert medlem stemme ved at fremsende underskreven stemmeseddel til bestyrelsen, eller ved at et andet medlem medbringer

underskreven stemmeseddel ved generalforsamlingen. De kandidater, der opnår de højeste stemmetal, er valgt.

I tilfælde, hvor lige store stemmetal kræver en afgørelse, foretages der lodtrækning.

#### 6. Fastsættelse af næste års kontingent

Bestyrelsen foreslår at kontingenten fastholdes uændret:

Studerende	0 kr.
Ordinære medlemmer	200 kr.
Pensionister	100 kr.

#### 7. Eventuelt

Forslag der skal behandles på generalforsamlingen, herunder ændringer af vedtægterne, samt kandidater til bestyrelsen og revisorposten, skal være bestyrelsen i hænde senest 2 uger før generalforsamlingen.

Efter generalforsamlingen vil der være et videnskabeligt foredrag. Se mere andetsteds i dette nummer af Meddelelser.

Efter foredraget vil der være middag på en restaurant i nærheden. Tilmelding til middagen bedes sendt til [sekr@dsts.dk](mailto:sekr@dsts.dk) senest fredag 18. februar, 2011.

## Betyrelsens beretning 2010

Der har i 2010 været afholdt et todagesmøde og et foredrag i selskabets regi. Todagesmødet i november var arrangeret af Biostatistisk afdeling, Københavns Universitet. Det var en stor succes med flere deltagere end selskabet er vant til. Ved generalforsamlingen i februar holdt Philip Hougaard, Lundbeck et foredrag med titlen "Clinical trials with a sequential or adaptive design: A user perspective".

Bestyrelsen har besluttet at nedlægge Meddelelser med virkning fra dette nummer. Se mere andetsteds om hvorfor og hvad bestyrelsen arbejder på at sætte i stedet.

## Dansk Selskab for Teoretisk Statistik

### Regnskab 2010

Indtægter:			2010	2009
Kontingent:				
Ordinære	331 a' 200,00 kr	66.200,00 kr		
Pensionister	3 a' 100,00 kr	300,00 kr		
Æresmedlemmer	a' 0,00 kr	0,00 kr		
Studerende	a' 0,00 kr	0,00 kr		
Kontingent 2009	700,00 kr	700,00 kr	67.200,00 kr	71.200,00 kr
Annoncer, MEDDELELSER			6.000,00 kr	16.000,00 kr
Renter			280,82 kr	191,37 kr
Kræftens bekæmpelse			5131,88 kr	
To-dages møde efterår KU:				
Ordinære	104 a' 500,00 kr	52.000,00 kr		
Studerende	1 a' 250,00 kr	250,00 kr	52.250,00 kr	22.250,00 kr
Indtægter i alt			130.862,70 kr	132.391,37 kr

# Dansk Selskab for Teoretisk Statistik

## Regnskab 2010

Udgifter:		2010	2009
MEDDELELSER:			
Porto & Frankering	22.104,50 kr		
Tryk	<u>6.500,00 kr</u>	28.604,50 kr	32.201,38 kr
PBS		3.363,25 kr	3.382,14 kr
Gebyrer Jyske Bank		50,00 kr	70,00 kr
Bestyrelsesmøder (incl. refusion af rejser)		509,00 kr	7.495,80 kr
Generalforsamling / julemøde / gå-hjem-møder		2.665,00 kr	11.589,00 kr
To-dages møde Efterår KU forplejning		55.010,00 kr	21.247,00 kr
ISI membership Fee		526,70 kr	526,67 kr
Diverse		45,00 kr	765,90 kr
Kræftens Bekæmpelse Retur		<u>5.131,88 kr</u>	
<b>Udgifter i alt</b>		95.905,33 kr	108.496,64 kr

**Kontant overskud:** 34.957,37 kr

# Dansk Selskab for Teoretisk Statistik

## Regnskab 2010

### Status:

	2010	2009
Beholdning 31. december 2009	316.509,28 kr	292.614,55 kr
Overskud	<u>34.957,37 kr</u>	<u>23.894,73 kr</u>
Beholdning 31. december 2010	<u>351.466,65 kr</u>	<u>316.509,28 kr</u>

### Beholdningens placering:

Jyske Bank konto	351.466,65 kr	316.509,28 kr
Tilgodehavende (annoncer)	0,00 kr	0,00 kr
I alt	<u>351.466,65 kr</u>	<u>316.509,28 kr</u>

Aalborg, d. 28.01.2011

Malene Højbjerg  
(Kasserer)

Julie Forman  
(Revisor)

**Dansk Selskab for Teoretisk Statistik**  
**Regnskab To-dages møde efterår 2010 KU**

**Indtægter:**

Deltagergebyrer:			
Ordinære	104 a' 500,00 kr	52.000,00 kr	
Studerende	1 a' 250,00 kr	250,00 kr	52.250,00 kr

**Indtægter i alt** 52.250,00 kr

**Udgifter:**

Forplejning 55.010,00 kr

**Udgifter i alt** 55.010,00 kr

**Kontant underskud:** 2.760,00 kr

Aalborg, d. 28.01.2010

Malene Højbjerg  
(Kasserer)

Julie Forman  
(Revisor)

**Foredrag i selskabet**

Susanne Ditlevsen. Institut for matematiske fag, KU:

**The stochastic Morris-Lecar neuron model embeds a one-dimensional diffusion and its first-passage-time crossings**

**Abstract:** Stochastic leaky integrate-and-fire models, i.e. one-dimensional mean-reverting diffusions, are popular tools to describe the stochastic fluctuations in the neuronal membrane potential dynamics due to their simplicity and statistical tractability. They have been widely applied to gain understanding of the underlying mechanisms for spike timing in neurons, and have served as building blocks for more elaborate models. Especially the Ornstein-Uhlenbeck process is popular, but also other models like the square-root model or models with a non-linear drift are sometimes applied. However, experimental data show varying time constants, state dependent noise, a graded firing threshold and time-inhomogeneous input, and higher dimensional, more biophysical models are called for.

The stochastic Morris-Lecar neuron is a two-dimensional diffusion which includes ion channel dynamics. We show that in a neighborhood of its stable point, it can be approximated by a two-dimensional Ornstein-Uhlenbeck modulation of a constant circular motion. The associated radial Ornstein-Uhlenbeck process is an example of a leaky integrate-and-fire model prior to firing. A new model constructed from a radial Ornstein-Uhlenbeck process together with a simple firing mechanism based on detailed Morris-Lecar firing statistics reproduces the interspike interval distribution, and has the computational advantages of a one-dimensional model. The result justifies the large amount of attention paid to the leaky integrate-and-fire models.

Foredraget finder sted umiddelbart efter generalforsamlingen 22. februar 2011 i SP113 - IBM Auditoriet, Solbjerg Plads 3, 2000 Frederiksberg



CENTRE FOR **STOCHASTIC GEOMETRY**  
AND ADVANCED **BIOIMAGING**

Department of Mathematical Sciences  
University of Aarhus

### **16<sup>th</sup> Workshop on Stochastic Geometry, Stereology and Image Analysis**

10 June 2011 at Sandbjerg Estate, Sønderborg, Denmark

This interdisciplinary workshop will bring together scientists from integral geometry, stereology, stochastic geometry, applied probability, spatial statistics and bioimaging. An important scope of the workshop is to promote the advance of stochastic geometry. The workshop will have longer talks by invited speakers and shorter contributed talks by the participants as well as a poster session.

**Invited speakers:** Semyon Alesker (Tel Aviv), Adrian Baddeley (Perth), Yongtao Guan (Yale), Daniel Hug (Karlsruhe), Mathew Penrose (Bath), Ege Rubak (Aalborg), Håvard Rue (Trondheim), Gennady Samorodnitsky (Cornell), Johanna Ziegel (Heidelberg).

**Scientific programme committee:** Eva B. Vedel Jensen (Aarhus), Günter Last (Karlsruhe), Jesper Møller (Aalborg).

**Deadline for registration and abstracts:** 1 March 2011.

Further information at <http://csgb.au.dk/events/2011/sgsia11/>

Symposium i anledning af

**Martin Jacobsen's**

pensionering

Professor Martin Jacobsen går på pension fra den 1. marts 2011. For at takke Martin for hans mangeårige virke som en populær og inspirerende forelæser i sandsynlighedsregning, afholdes et symposium på H. C. Ørsted Institut den 25. marts.

Foredragsholderne er: Hansjörg Albrecher (University of Lausanne), Søren Asmussen (University of Aarhus), Jean Jacod (Université Paris VI), Peter Jagers (Chalmers University Gothenburg), Anders Tolver Jensen (University of Copenhagen), Uwe Küchler (Humboldt University of Berlin), Torgny Lindvall (University of Gothenburg) og Holger Rootzén (Chalmers University Gothenburg).

Det videnskabelige program starter kl. 9.00 og slutter kl. 15.00 (med frokost 12.30 – 14.00). Kl. 15.30 er Institut for Matematiske Fag vært for en reception. Arrangementet afsluttes med en middag om aftenen.

Et detaljeret program og lokaler annonceres senere. Yderligere information og link til on-line tilmelding (senest 15/3) kan findes på web-siden [www.math.ku.dk/~mikosch/Martin/martin.html](http://www.math.ku.dk/~mikosch/Martin/martin.html)

ISI-satellite meeting: Dynamic Statistical Models  
Copenhagen, August 17-19, 2011

Dear Colleague,

It is our pleasure to invite you to the satellite meeting for the 58th ISI meeting 2011 on Dynamic Statistical Models, organized by the Statistics Program of Excellence; *Statistical methods for complex and high dimensional models*, University of Copenhagen.

The website of the Conference is <http://statistics.ku.dk/isi-satellite/>. The Conference website is continuously updated with relevant information and important dates. Registration and abstract submission is now open.

The purpose of the meeting is to bring together researchers in statistics and related areas working with frontier research topics in statistics for dynamic models. The meeting is organized with a focus on the following themes: Causality in dynamic models; Functional data analysis; Stochastic differential equations; Neurophysiological processes; Gene regulatory processes; Event history data.

The invited speakers are

- André Fujita, RIKEN
- Emery N. Brown, MIT
- Jin-Ting Zhang, National University of Singapore
- Mark van der Laan, UC Berkeley
- Markus Reiß, Humboldt-Universität zu Berlin
- Robert Kass, Carnegie Mellon
- Sara van de Geer, ETH
- Shuangge Ma, Yale
- Stijn Vansteelandt, Ghent University
- Torben Martinussen, University of Copenhagen

The form of the meeting will be a combination of invited, plenary talks and contributed sessions. The Conference will be held in the Copenhagen Biocenter, University of Copenhagen.

UNIVERSITY OF  
COPENHAGEN



Seminar i anvendt statistik

Seminarerne afholdes på det gamle Kommunehospital, Øster Farimagsgade 5. Der serveres te i Biostatistisk Afdelings bibliotek (opgang B, lokale 10.2.15) en halv time før.

Mandag d. 7. februar 2011, kl. 15.15, lokale 2.2.49

Robin Van Oirbeek

I-Biostat, University of Leuven and University of Hasselt

Measures of predictive ability for frailty models

The frailty model is a popular model to deal with clustered survival data. This model is able to estimate clustering effects on top of covariate effects by introducing a frailty distribution. Of interest is to calculate the predictive ability of the covariates of the frailty model and to see how the predictive ability changes while considering the clustering effects on top of the covariates. In addition, it would be interesting to see if the model performs differently within clusters than over different clusters. To address these questions, existing measures for univariate survival data were adapted to the clustered setting. To our knowledge, only an adaptation of the concordance probability ([1], [2]) has been proposed for proportional hazards frailty models by [3]. The prediction error, suggested in [4] and [5], will be extended to frailty models in this presentation. Properties and estimators of both measures will be presented and both measures will be applied to a dental data set.

References

- [1] Harrell FE Jr, Califf RM, Pryor DB, Lee KL, Rosati RA. Evaluating the yield of medical tests. *Journal of the American Medical Association* 1982; 247(18):2543-2546.
- [2] Heagerty PJ, Zheng Y. Survival model predictive accuracy and ROC curves. *Biometrics* 2005; 61:92-105.
- [3] Van Oirbeek R, Lesaffre E. An application of Harrell's C-index to PH frailty models. *Statistics in Medicine* 2010; 29(30).
- [4] Graf E, Schmoor C, Sauerbrei W, Schumacher M. Assessment and comparison of prognostic classification schemes for survival data. *Statistics in Medicine* 1999; 18:2529-2545.
- [5] Gerds TA, Schumacher M. Consistent estimation of the expected brier score in general survival models with right-censored event times. *Biometrical Journal* 2006; 48(6):1029-104





#### SEMINAR IN APPLIED MATHEMATICS AND STATISTICS

**Friday, February 11, 2011, 14:15, aud. 10, H.C. Ørsted Institute**

**Speaker: Carsten Wiuf, University of Aarhus**

**Title: MODELING AND ANALYSIS OF DNA SEQUENCE DATA FROM HETEROGENEOUS TUMORS**

##### Abstract:

Cancer cells in a tumor evolve over time and accumulate genetic changes. Consequently, cells in different parts of a tumor might show differences in their genetic make-up, or DNA. This phenomenon is referred to as (genetic) tumor heterogeneity and is comparable to the genetic heterogeneity observed in individuals in a population.

In this talk, I address the problem of modeling how a tumor evolves over time and accumulates changes in the DNA. The modeling relies on birth-death processes and draws on insight from cancer biology and theoretical population genetics. I show that one can derive a (fairly) simple description of how the number of tumor cells evolves and that the model imposes constraints on biologically interpretable parameters; thus it might lead to biological insight.

Further, the model leads to a simple way of simulating tumor evolution. Based on this, I show how a sample of DNA sequences taken from distinct parts of a heterogeneous tumor might be used to draw inference on model parameters and date the origin of the tumor. The latter might have clinical importance as it provides an estimate of the time from tumor start to diagnosis.

I will end the talk by showing a simple application to real data and outlining some further mathematical and statistical work to be done.

JANUAR 26, 2011

UNIVERSITETSPARKEN 5  
DK-2100 COPENHAGEN  
DENMARK

<http://www.math.ku.dk/>



#### SEMINAR IN APPLIED MATHEMATICS AND STATISTICS

**Wednesday, February 23, 2011, 15:15, aud. 10, H.C. Ørsted Institute**

**Speaker: Adeline Samson, Universite Paris Descartes**

**Title: EM algorithm coupled with particle filter for maximum likelihood parameter estimation of stochastic differential mixed-effects models**

##### Abstract:

Biological processes measured repeatedly among a series of individuals may be analyzed by mixed models defined by parametric Stochastic Differential Equations (SDEs). We focus on the parameter maximum likelihood estimation of this model. As the likelihood is not explicit, we propose the use of a stochastic version of the Expectation-Maximization algorithm combined with the Particle Markov Chain Monte Carlo method. We prove the convergence of the proposed algorithm toward the maximum likelihood estimator. We illustrate the performance of this estimation method on simulated datasets. We consider two examples: the first one is based on an Ornstein-Uhlenbeck process with two random parameters and an additive error model; the second one is based on a time-inhomogeneous SDE (Gompertz SDE) with a stochastic volatility error model and three random parameters.

JANUAR 26, 2011

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DENMARK

<http://www.math.ku.dk/>

## Statistik kurser på Pharmakon

### Statistisk kvalitetskontrol NYT

Statistisk kvalitetskontrol kaldes ofte SPC (Statistical Process Control) og er en samling teknikker, der har til formål at reducere variation, give viden om processen og styre processen i den ønskede retning.

#### Kursusledelse

Statistician Birger Stjernholm Madsen, Novozymes A/S.

#### Kursus 113610

21-22 mar 2011

Kursusafgift 7700 kr. ekskl. moms

#### Eksternat

### Statistik brush-up

Statistiske principper og værktøjer er, en uvurderlig del af kvalitetskontrol, kvalitetsstyring og kvalitetsforbedring. På 2 dage kan du få genopfrisket statistiske grundbegreber og blive i stand til at anvende dem i praksis med regneark som værktøj

#### Kursusledelse

Statistician Birger Stjernholm Madsen, Novozymes A/S.

#### Kursus 113621

29-30 sep 2011

Kursusafgift 7875 kr. ekskl. moms

#### Eksternat

### Klinisk studiedesign: krydsfeltet mellem medicinsk og statistisk ekspertise

Dialog mellem kliniker og statistiker er alfa og omega i design af kliniske studier. Kurset vil give dig indsigt i den integrerede klinisk-statistiske metode med udgangspunkt i typiske kliniske designs og værktøjer til at indhente det rigtige statistiske input til udvikling af et studiesynopsis samt til fortolkning af resultater fra kliniske studier.

#### Kursusledelse:

Læge, PhD, MSc Ewa Lindenstrøm, EL Medical Consulting og Statistiker, PhD. Judith L. Jacobsen, Statcon ApS.

#### Kursus 113619

09 maj 2011

Kursusafgift 4300 kr. ekskl. moms

### Statistisk forsøgsplanlægning

Planlægger du forsøg, og savner du viden om statistisk forsøgsplanlægning (DOE, Design of Experiments)? På kurset bliver du i stand til at planlægge forsøg på en måde, så du ved en minimal indsats opnår brugbar og optimal viden fra forsøgene. Du vil også kunne analysere resultaterne fra simple forsøg.

#### Kursusledelse

Statistician Birger Stjernholm Madsen, Novozymes A/S.

#### Kursus 113631

28-29 nov 2011

Kursusafgift 7700 kr. ekskl. moms

#### Eksternat

### Kursussted

Kurserne afholdes på Pharmakon.

## Biostatistician at H. Lundbeck A/S

A position as Biostatistician is open in the Biostatistics Department. The department is part of the Biometric Division, which also includes the two departments Clinical Data Management and Biometric Programming. The division is responsible for data capture and analysis for the clinical development projects and contributes to the entire drug development process from discovery to market across the range of therapeutic areas within psychiatry and neurology.

The current staffs include 22 Biostatisticians located in Valby. In addition, 4 Biostatisticians are located in Singapore and 3 Biostatisticians in USA with local day-to-day management.

In this setting, we offer a challenging job with broad career opportunities in a dynamic and open working atmosphere with focus on personal and scientific development and a good work-life balance.

### Your job

Part of your responsibility will be to provide statistical input for designing and planning of clinical studies, to perform statistical analysis and to participate in interpretation of clinical study results in all phases of development. You will participate in preparing publications, which involves exploratory statistical analyses of a diverse range of clinical study data and, where appropriate, research in new statistical methodologies. Other challenges may involve providing statistical input for clinical development plans, new study designs, and statistical modelling and simulation in the area of translational medicine for optimisation of early drug development.

You will work in close collaboration with Clinical Researchers and other Specialists, exerting your expertise in statistical methodology. Together with your fellow Biostatisticians, you keep abreast of current practices in pharmaceutical R&D and state-of-the-art statistical methodology.

### Your qualifications

Our preferred candidate

- holds an MSc or PhD degree in Statistics or Mathematical Sciences
- has programming experience and familiarity with statistical software
- has a strong interest in applying statistical methods to biological problems
- has work experience from the pharmaceutical industry or consulting experience from an industrial or academic setting
- is analytical, goal-oriented, innovative and proactive
- is fluent in oral and written English
- is a team player and able to interact with colleagues and collaborators from different functional areas and partner companies

### Further information

Please contact Head of Section, Mette Krog Josiassen on +45 3643 3633 or Head of Department Anna Karina Trap Huusom, on +45 3643 2303. We also recommend you to visit our website [www.lundbeck.com](http://www.lundbeck.com).

### Your application

Please go to [www.lundbeck.com/career](http://www.lundbeck.com/career) where you will find this position in the list of open vacancies, to apply for the job. Applications must be received no later than February 14, 2011.

## Postdoc at the Bioinformatics Research Centre, Aarhus University

A postdoc position is available immediately or from as soon as possible.

The ideal candidate has a background in statistics with some knowledge of mathematical biology.

The work to be done relates to probabilistic modeling of tumor cells using birth-death processes and some techniques/concepts from population genetics. The basic idea is to describe how a population of tumor cells grows/evolves and accumulates genomic changes over time. For this birth-death processes and Markov Chains are used. The work involves mathematical derivation of equations and properties, development of statistical tools for analysis of real data (such as MCMC, ABC, or Importance Sampling methods), and implementation of simulation and analysis tools. The data to be analyzed consists of DNA sequences and other genomic data from real tumors.

It might be possible to extend the position for another year depending on funding and the outcome of the work.

For further information contact Carsten Wiuf, [carsten.wiuf@gmail.com](mailto:carsten.wiuf@gmail.com) or visit my home page <http://www.birc.au.dk/~wiuf>. The theory and modeling developed in Refs 30 and 34 on my home page have direct relationship to the work to be done. To apply, send me your CV and publication list and a few words about your previous experiences and expectations.

## Nyt om Navne

Pr 1. oktober 2010 er Torben Martinussent tiltrådt som professor i biostatistik, Institut for Grundvidenskab og Miljø, Det Biovidenskabelige Fakultet, Københavns Universitet

Per Sørensen er tiltrådt en stilling som Specialist i H. Lundbeck A/S

## Kalender 2011

Dato	N o .	Aktivitet
7. feb	1	Seminar i anvendt statistik: <i>Measures of predictive ability for frailty models</i>
11. feb	1	SEMINAR IN APPLIED MATHEMATICS AND STATISTICS: <i>MODELING AND ANALYSIS OF DNA SEQUENCE DATA FROM HETEROGENEOUS TUMORS</i>
22. feb	1	Generalforsamling i selskabet, efterfulgt af foredrag af Susanne Ditlevesen: <i>The stochastic Morris-Lecar neuron model embeds a one- dimensional diffusion and its first-passage-time crossings</i>
23. feb	1	SEMINAR IN APPLIED MATHEMATICS AND STATISTICS: <i>EM algorithm coupled with particle filter for maximum likelihood parameter estimation of stochastic differential mixed-effects models</i>
25. mar	1	Symposium i anledning af Martin Jacobsen's pensionering
10. jun	1	16th Workshop on Stochastic Geometry, Stereology and Image Analysis
1-5. aug	2010-7	Conference in Honour of Søren Asmussen <i>New Frontiers in Applied Probability</i>
17-19. aug	1	ISI-satellite meeting: <i>Dynamic Statistical Models Copenhagen</i>