
NAKE Bulletin 00-21, November 27, 2000

1. VOC Conference on Non-Parametric Methods
 2. Conference on Financial Econometrics
 3. Vacancy ESB
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PROGRAM VOC CONFERENCE ON NON-PARAMETRIC METHODS

December 1, 2000

Tilburg University (room A 186)

Organized by: Harald van Heerde and Tammo Bijmolt

Please register with: Heidi v.d. Borne (H.P.A.M.vdnBorne@kub.nl)

		Topic
10.00-10.30	Coffee, reception	
10.30-11.00	B. Melenberg	Overview of nonparametrics
11.00-12.00	B. Silverman	Empirical Bayes approaches to wavelet smoothing
12.00-13.00	Lunch	
13.00-14.00	I. Gijbels	Nonparametric tests for monotonicity of a regression mean
14.00-14.45	M. Timmermans	Simultaneous component models with smoothness constraints of multivariate time series of a number of subjects
14.45-15.15	Coffee break	
15.15-16.00	A. van Soest	Nonparametric modeling of the anchoring effect in an unfolding bracket design
16.00-16.45	B. Donkers	A consumer-theory-consistent semiparametric estimator of Engel Curves

Bertrand Melenberg (Tilburg University)

Overview of nonparametrics

The presentation gives an overview of the field of nonparametrics, shows the positions of the other five presentations within this field, and indicates other 'hot' research areas in nonparametrics.

Bernard Silverman (University of Bristol, England)

Empirical Bayes approaches to Wavelet Smoothing

One way of dealing with the notion that an unknown function has an economical wavelet expansion is to model the wavelet expansion with a suitable mixture prior distribution. The parameters in this distribution can themselves be estimated from the data. Such a procedure has

very attractive theoretical properties and performs excellently in practice. Applications both to standard wavelet regression and to spatial smoothing from irregular data will be considered and discussed.

Irène Gijbels (Catholic University of Louvain, Louvain-la-Neuve, Belgium)

Nonparametric tests for monotonicity of a regression mean

The potential monotonicity of a response variable in relation to a covariate is often of significant practical interest. For example, econometric theory predicts that production costs is a nondecreasing function of production output, and a monotone link between the levels of two medical symptoms is an important indicator of a common cause.

In this talk we discuss recently proposed procedures for testing for monotonicity of a regression function. Among the possible approaches we mention a test based on the size of a 'critical' bandwidth (the amount of smoothing necessary to force a nonparametric regression estimate to be monotone), tests based on running gradients, and tests based on signs of differences. The first approach leads to a test that is analogous to Silverman's test of multimodality in density estimation. Bootstrapping is used to provide a null distribution for the test statistic. We give some examples to demonstrate the testing procedure. This test suffers from some difficulties in certain situations, and the running gradient approach has been proposed to get better power properties in these situations. The tests based on signs of differences have a guaranteed level and are quite robust against heavy-tailed error distributions. Some simulation results illustrate the performance of these testing procedures.

Marieke Timmermans (University of Groningen)

Simultaneous Component Models with Smoothness Constraints of Multivariate Time Series of a Number of Subjects

A class of four types of Simultaneous Component Analyses (SCA) for modelling multivariate time series collected from more than one subject is discussed. Both intra-individual and inter-individual variability is covered in the models. The models are the SCA-P model, direct fitting PARAFAC2, and two newly proposed direct fitting variants of the INDSCAL model and the SUMPCA model. In each of the models, the multivariate time series of each subject is decomposed into a loading matrix, which is common to all subjects, and series of subject specific component scores. The four models can be ordered hierarchically from weakly to severely constrained, thus allowing for big to small interindividual differences in the model. The interpretation of the components is based on the loading matrix. The component score series reveal the latent data structure in the course of time. To improve estimation of the structural part of the data, and interpretability of the model, one may impose smoothness constraints on the component score series. The use of B-splines to constrain the models will be discussed, and it will be shown that smoothing the data before performing an unconstrained SCA lead to equivalent estimates as when a constrained SCA is performed. The use of the models is illustrated by an empirical example.

Arthur van Soest (Tilburg University)

Nonparametric modeling of the anchoring effect in an unfolding bracket design

Household surveys are often plagued by item non-response on economic variables of interest like income, savings or the amount of wealth. Various papers by Manski show how, in the presence of such non-response, bounds on conditional quantiles of the variable of interest can be derived, allowing for any type of non-random response behaviour. Including follow up categorical questions in the form of unfolding brackets for initial item non-respondents, is an effective way to reduce complete item non-response. Recent evidence, however, suggests that such a design is vulnerable to a psychometric bias known as anchoring effect. In this paper, we extend the approach by Manski to take account of the information provided by the bracket respondents. We derive bounds that do and do not allow for the anchoring effect. These bounds are applied to earnings in the 1996 wave of the Health and Retirement Survey (HRS). The results show that the categorical questions can be useful to increase precision of the bounds, even if anchoring is allowed for.

Bas Donkers (Erasmus University, Rotterdam)

A consumer-theory-consistent semiparametric estimator of Engel Curves

This paper considers the implication of semiparametric methods, particularly, the multi-index models, in the empirical analysis of consumer demand. The multi-index model is used to estimate Engel Curve relationships in rural China. To avoid incoherency with consumer theory, the impacts of total expenditures and of household composition on the expenditure share are modeled with two separate indices. This is shown to provide a useful way for analyzing consumption patterns of households with a different demographic composition.

CONFERENCE ON FINANCIAL ECONOMETRICS

On January 25-26 ULB, UCL and KULeuven organize a conference in Leuven on Financial Econometrics. It focusses on econometric and empirical issues in financial markets and corporate finance. Invited speakers include Christian Gourieroux, Frans De Roon, Craig MacKinlay and Colin Mayer. More information can be found at:
<http://www.econ.kuleuven.ac.be/ew/academic/econmetr/pai/pai.htm>

VACANCY ESB

Economie die prikkelt

Economisch Statistische Berichten is hét Nederlandse blad over economische wetenschap, economisch beleid en de toepassing van economische inzichten in het bedrijfsleven. Naast het weekblad maakt ESB thematische Dossiers en een economische databank op cd-rom. Bij ESB werken een hoofdredacteur, drie redacteurs en enkele redactiemedewerkers. ESB bv is een groeiende onderneming binnen de ECORYS-groep. Het kantoor van ESB bevindt zich in het NEI-gebouw nabij de Kralingse Zoom in Rotterdam.

ESB is op zoek naar een

Redacteur bedrijfseconomie

die de redactie van het weekblad komt versterken.

De werkzaamheden bestaan uit

- beoordelen van kopij en begeleiden van auteurs bij het herschrijven
- wekelijks redigeren en opmaken van het blad, inclusief de illustraties
- zelfstandig acquireren van artikelen
- uitbreiden van het ESB-netwerk met auteurs uit bedrijfseconomie en bedrijfsleven
- schrijven van redactionele columns
- meedenken over de koers van ESB

De redacteur die wij zoeken

- is bedrijfseconoom of algemeen econoom met bedrijfseconomische bagage
- heeft plezier in (bedrijfs)economische theorievorming en de toepassing ervan
- combineert een brede belangstelling met een kritische, analytische benadering
- kan in de economenwereld een netwerk opbouwen
- werkt gemakkelijk met diverse softwarepakketten
- heeft een goede beheersing van de Nederlandse taal
- geeft creativiteit vorm in tekst en opmaak
- is stressbestendig en werkt nauwkeurig, ook in het zicht van de wekelijkse deadline

ESB biedt

- een aanstelling voor minimaal twee jaar
- aantrekkelijke arbeidsvoorwaarden, zoals een reiskostenvergoeding en in de nabije toekomst diverse individuele keuze-mogelijkheden
- de gelegenheid om brede kennis en ervaring op te doen
- een substantiële uitbreiding van je netwerk
- een informele werkomgeving met enthousiaste collega's

En verder...

- is doorgroei naar de functie van senior redacteur mogelijk
- maakt een psychologisch onderzoek deel uit van de selectieprocedure

Nadere inlichtingen geeft Fieke van der Lecq, hoofdredacteur ESB, tel. 010 - 453 8743

Tot 8 december kunt u uw sollicitatie sturen naar:

ECORYS, t.a.v. Veronique Potters, Afdeling HRM, Postbus 4175, 3006 AD Rotterdam