

# B-Stat News

The Newsletter  
of the  
*Belgian Statistical Society*  
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## Belgian pension statistics available from the “Rijksdienst voor Pensioenen / Office national des Pensions <sup>1</sup>” (RVP/ONP)



The RVP/ONP is the Belgian federal public service of social security that is in charge of the majority of the Belgian legal pensions. In fact, it grants and calculates the legal pensions for wage earners from the private sector<sup>2</sup> in Belgium as well as the ‘income guaranty for elderly’ (called IGO and GRAPA in Dutch respectively French, which is a kind of social benefit to protect old people against poverty in Belgium). Besides this, it pays all legal pensions for wage earners (from the private sector in Belgium) and for self-employed workers (with a professional career in Belgium) as well as the IGO/GRAPA benefits. This results in some 1,8 million people who receive (monthly) 1 or *several* pension benefits from RVP/ONP, resulting in a monthly expense of about €1,5 billion!

The RVP/ONP has been publishing for many years various statistics on its payments of pensions and similar benefits to retired people. They deal with *numbers* of people corresponding total monthly *amounts* paid (gross amounts, before subtracting taxes and other duties). These classifications are based on (combinations of) criteria such as sex, category, age, starting year of the pension, pension scheme (wage earners, self-employed and ‘public servants’ - mostly called ‘ambtenaren’ or ‘fonctionnaires’, see public employment sector), pension type (old age pension versus survivor’s pension), combination of these schemes and types (cumulating of different benefits by the same person), region, province, nationality... As a huge diversity exists in kinds of pensions and in the people drawing benefit from these (see classification criteria above), a corresponding variety of tables results in these statistical publications.

If you browse to <http://www.rvponp.fgov.be><sup>3</sup>, you can choose NL, FR or DE as language and you arrive at the home page. Next you click on “Wetgeving en Studies”, “Législation et Études” or “Gesetzgebung und Studien”, depending on which language you chose before. You can then click on

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<sup>1</sup> “Landespensionamt” in German: different items on the RVP/ONP website are not only available in Dutch and French but in German as well. However, the topics “Studies” and “Statistics” are only available in Dutch and French. The “national pensions office” does not have an English web site yet.

<sup>2</sup> Legal pensions of *contractual* (i.e. non-statutory) ‘public servants’ are also granted (calculated) *and paid* by RVP/ONP.

<sup>3</sup> [www.rvp.fgov.be](http://www.rvp.fgov.be) or [www.onp.fgov.be](http://www.onp.fgov.be) also works!

“Statistieken” or “Studies” for getting some statistical material in Dutch; for French, you click on “Statistiques” or “Études” respectively.

The RVP/ONP currently publishes 2 kinds of *statistics* on a regular basis:

1. Yearly statistics (“Statistieken/Statistiques 2002, 2003...2007): these are based on the situation at the 1<sup>st</sup> of January of that year (data about payments for the month of January) and contain lots of details (see the many criteria cited above concerning the ‘classifications’). This publication also contains some methodological explanations.
2. Monthly statistics (“Maandelijkse statistieken” / “Statistiques mensuelles”): statistics of the last 13 months (each is published shortly after the month has expired); all these publications also contain some cumulative totals for all months of the year that far as well as the number of new pensions for the different classes of people entitled to some benefit(s) from RVP/ONP (see classes defined by various classification criteria). These statistics contain much less details (fewer classification criteria are used) than the yearly statistics but they do contain – apart from counts based on classifications as described above – amounts from the accounting processing of the elapsed month.

The web page on studies contains some analyses concerning the career of wage earners (from the private sector in Belgium), about granting and payment of their pensions and about the evolution of total pension expenses. It also contains a presentation and information brochure about “woman and pension” (“vrouw en pensioen” / “femme et pension”). Contrary to the (monthly and yearly) statistics, which appear with a fixed periodicity, the studies are published on an ad-hoc basis.

Peter Slock  
Rijksdienst voor Pensioenen / Office national des Pensions

## IGES

In May 2008, the board of directors of the International Genetic Epidemiology Society (IGES) has invited professor Kristel Van Steen (ULg) to accept the position as an **IGES ambassador** for Belgium. Her task as a new ambassador includes helping the society to promote the field of genetic epidemiology and to promote the International Genetic Epidemiology Society in Belgium. Please visit the IGES website

<http://www.geneticepi.org/>

to find out more about the exciting IGES community. Its members include geneticists, epidemiologists, statisticians, mathematicians, bioinformaticians, related biomedical researchers and students interested in the research of the genetic basis of the diseases, complex traits and their risk factors.

Promoting visibility of IGES and also membership in IGES could help foster genetic epidemiology in Belgium through

- learning about the latest methodological developments and research findings in genetic epidemiology
- interacting with scientific peers worldwide
- continuing education.

Similar in spirit, professor Van Steen and professor Haesbroeck (ULg) have founded a **Statistical Genetics Research Club**. In this post-genomic era, it is their firm belief that advanced methods in statistical genetics should make better use of the vast amount of information that can be retrieved from proteomics, transcriptomics and metabonomics, to name but a few. The club therefore offers a platform to facilitate communication between different research areas, and to brainstorm about new research thoughts and routes. To celebrate the year of its founding, a mini-conference is organized on September 15 at ULg. Please check [www.statgen.be](http://www.statgen.be) for detailed information.

You are all cordially invited to participate in one of the events of IGES and/or the Statistical Genetics Research Club.

# 16TH ANNUAL MEETING OF THE BELGIAN STATISTICAL SOCIETY

**Wépion-Namur, (15) 16-17 October 2008**

The final program of the next meeting of the Belgian Statistical Society (BSS 2008) will be available on the conference web-site:

<http://cud.fundp.ac.be/BSS2008/program.html>

## **Wednesday 15<sup>th</sup> October** (Young Statisticians Afternoon)

13h30 Registration and welcome

14h30 *Symbolic data in statistics : a tutorial (1)*  
Brito Paula (Porto)

15h30 Poster session (1)

- *Adapting the cancer phase II design for a better assessment of therapeutic activity: application to malignant mesothelioma*, Julie Francart, Evelien Vaes, Annie Robert
- *Nonparametric estimation of mean and dispersion functions in extended Generalized Linear Models*, Ilaria Prosdocimi, Irène Gijbels
- *Testing the fit of a model using an order selection test under missingness*, Fabrizio Consentino, Gerda Claeskens
- *Variable selection for partial wavelet models*, Huijuan Ding, Gerda Claeskens
- *Manipulation of Kohonen's map for Symbolic data*, Joffray Baune
- *Random Sampling and Parametric Spectral Estimation*, Maik Schwarz

- *Competing risks in survival analysis: predictors of cardiovascular events in renal transplant recipients*, Séverine Henrard, Annie Robert
- *A new method for clustering interval symbolic data - Application to medical data*, Nathanael Kasoro
- *Tree-Structured Wavelet Estimation of Spectra of Replicated Time Series in a Mixed Effects Model*, Jean-Marc Freyermuth, Hernando Ombao, Rainer von Sachs

16h30 Coffee & Refreshment

17h30 Poster session (continuing)

18h30 Quetelet Prize (Presentation of best Master and Ph.D. projects)

20h00 Dinner and social activities

#### **Thursday, 16<sup>th</sup> October**

09h00 *Symbolic data in statistics : a tutorial (2)*  
Brito Paula (Porto)

09h00 Welcome for BSS participants

09h50 Opening of the conference

10h00 BSS 2008 Invited speaker : Pascale Kuntz (Nantes)  
*Graphs and clustering : applications to Middle Age data.*

10h50 Parallel sessions

#### Methodological Session I:

- *S-Estimation for Penalized Regression Splines*,  
Kukatharmini Tharmaratnam, Gerda Claeskens, Christophe Croux,  
Matias Salibian-Barrera

- *The Generalized QAMML Families Of Probability Distributions For Functional Data,*  
Etienne Cuvelier, Monique Noirhomme-Fraiture
- *A Comparison of Different Bayesian Design Criteria to Compute Efficient Conjoint Choice Experiments,*  
Jie Yu, Peter Goos, Martina Vandebroek

Biostatistic Session I:

- *A High-Dimensional Joint Model for Longitudinal Endpoints of Different Type,*  
Christel Faes, Marc Aerts, Helena Geys, Geert Molenberghs, Greet Teuns
- *Estimation of marginal structural survival models in the presence of competing risks,*  
Maarten Bekaert, Stijn Vansteelandt, Karl Mertens
- *Prognostic and predictive factors analysis based on two pooled EORTC clinical trials in patients with high grade Soft Tissue Sarcoma (STS) and treated by adjuvant chemotherapy (adCT),*  
Monia Ouali, Martine Van Glabbeke, A. LeCesne

11h50 B-Enbis Invited speaker : David Steinberg (Tel Aviv University)  
*Computer Experiments*

12h45 Lunch

14h00 BSS 2008 Invited speaker : Frank den Hollander (Leiden)  
*Percolation*

14h50 Parallel sessions

Probability and Statistics Session:

Invited speaker : Uwe Einmahl (ULB)  
*A generalization of the law of the iterated logarithm,*

- *An Extended Panjer Family of distributions, with applications,*  
Maud Gathy

- *General Multivariate Skewing Mechanisms*,  
Christophe Ley, Davy Paindaveine

Quetelet Session:

Quetelet Society Invited speaker : Philippe Baret (UCL)

*Genomes, microarrays and phylogenomics : new challenges for statisticians*

- *Detection of Differentially Expressed Genes by Scanning at Multiple PMT Voltage*,  
Jerme Ambroise, Bertrand Bearzatto, Sébastien Van der Vorst, Anne-France Dekairelle, Jean-Luc Gala, Annie Robert, Benoit Macq
- *Classification of cell lines based on response to Treatment using PAMCHIPS*,  
Arthur Gitome, Adetayo Kasim, Dan Lin, Suzy Van Sanden, Ziv Shkedy

16h00 Coffee break

16h20 Parallel sessions

Biostatistic Session II:

- *Ultrasonic Characterization of Cancer versus Non Cancer Tissue*,  
Evelien Vaes, Dror Nir, Rina Nir, Annie Robert
- *Designing a sequentially randomised study with adherence enhancing interventions for the first line treatment of diabetes*,  
Jozefien Buyze, Els Goetghebeur
- *Identifying Missing Links in Pneumonic Plague Epidemics using a Prior-based EM-algorithm*,  
Niel Hens, Jacco Wallinga, Teele Tamme

Methodological Session II:

- *Positive Quadrant Dependence Tests for Copulas*,  
Dominik Szanjder, Irène Gijbels, Marek Omelka

- *Design criteria to develop choice experiments to measure accurately the willingness-to-pay,*  
Bart Vermeulen, Peter Goos, Riccardo Scarpa, Martina Vandebroek

17h20 BSS Biostatistic Section Invited speaker : Stéphane Laurent (UCL)  
*Frequentist validity of Bayesian methodology for clinical trials*

Poster Session (continuing)

20h00 Conference Dinner

### **Friday, 17<sup>th</sup> October**

08h00 Breakfast

9h00 IAP Invited speaker : Vladimir Spokoiny (Berlin)  
*Non parametric statistics (to be determined).*

09h50 Parallel sessions

#### Biostatistic Session III:

- *Testing for Trend in Dose-Response Microarray Experiments: Gene Expression Analysis in Striatum after Acute Treatment with Antipsychotics,*  
Setia Pramana, Philippe Haldermans, Dan Lin, Ziv Shkedy
- *A new statistical method for evaluating External Quality Assessment,*  
Wim Coucke, Marjan Van Blerk, Jean-Claude Libeer, Adelin Albert
- *Estimation of calibration interval for unknown concentration in a spiked in cDNA microarray experiment: Nonlinear mixed-effects models approach,*  
Pushpike J. Thilakarathne, Geert Verbeke

#### Methodological Session III:

- *Crossed Random Effects Models for the Detection of Differential Item Functioning in Psychometrics,*  
David Magis, Sofie Frederickx, Francis Tuerlinckx, Paul De Boeck

- *B-splines regression smoothing and difference type of penalties,*  
Anneleen Verhasselt, Irène Gijbels
- *Regularly varying time series of random fields,*  
Thomas Meinguet, Johan Segers

10h50 Coffee break

11h10 Parallel sessions

Methodological Session IV:

- *A Multiresolution Approach to Time Warping achieved by a Sequential Bayesian Fitting Strategy,*  
Leen Slaets, Gerda Claeskens
- *Structural tests in regression on functional variable : Theoretical background, Bootstrap methods and Applications.,*  
Laurent Delsol, Frdric Ferraty, Philippe Vieu

Biostatistic Session IV:

- *The use of HMM-based feature selection to classify array CGH data,*  
Anneleen Daemen, Olivier Gevaert, Karin Leunen, Eric Legius, Ignace Vergote, Bart De Moor
- *A Bayesian approach to identify overlapping peptides in a mass spectrum,*  
Qi Zhu, Dirk Valkenburg, Adetayo Kasim, Ivy Jansen, Thomasz Burzikowski
- *Bayesian adaptive clinical trials: calibration, optimization and benefits,*  
Francois Vandenhende, Julien Vanwinsberghe

12h10 Quetelet Society Invited speaker : NN  
Title to be communicated by Quetelet Society

12h50 Official closing of the conference

13h10 Lunch

**MSOURCE SYMPOSIUM**  
**ADVANCED TOPICS IN SURVIVAL ANALYSIS**  
**Kraainem, Belgium, 7 November 2008**

The second MSOURCE Symposium will take place in the Auditorium of MSOURCE in Kraainem (Mechelsesteenweg 445, 1950 Kraainem). This symposium is directed at medical statisticians and interested clinicians who are involved in clinical and pre-clinical research in the pharmaceutical industry, contact research organizations or academic institutions. The symposium will focuss on methods that complement and broaden the usual range of tools used for the analysis of survival data in clinical trials and clinical research. Catherine Legrand (Louvain), Luc Duchateau (Ghent) and Tomasz Burzykowski (Hasselt) will give two presentations each on special topics of survival analysis.

**Program:**

Morning: Review of basic concepts and methods (T. Burzykowski)  
Multivariate/clustered survival data (C. Legrand)  
Copulas and frailty models –Part I (L. Duchateau)

Afternoon: Competing risks (T. Burzykowski)  
Recurrent events data (C. Legrand)  
Copulas and frailty models –Part II (L. Duchateau)

Please note that the number of places is limited to 60. Please register before 17<sup>th</sup> October 2008

More information: <http://www.msource-cro.com/news-events.aspx>

## FORTHCOMING STATISTICAL EVENTS

**October (15) 16-17, 2008** – Wépion, Belgium "*16<sup>th</sup> annual meeting of the Belgian Statistical Society*"

More information: <http://www.fundp.ac.be/bss2008/>

**November 7, 2008** – Kraainem, Belgium, "*Second MSOURCE symposium: advanced topics in survival analysis*",

More information: : <http://www.msource-cro.com/news-events.aspx>

**November 12-14, 2008** – Leuven (KUL), Belgium, "*Flexible modelling : smoothing and robustness*", International workshop

More information: <http://wis.kuleuven.be/stat/fmsr2008.php>

We would like to publish in this *Newsletter* any statistical matter such as :

- information about universities, institutes (1 to 3 pages);
- lists of recent publications and technical reports;
- abstracts of recent PhD theses;
- news of members;
- forthcoming statistical events and announcements;
- short papers about teaching methods in statistics, statistics in the industry, official statistics, etc.

Suggestions are welcome: please, contact us.

Suitable information for the next issue, prepared as **(LA)TEX or WORD FILES**, should reach the editors of the Newsletter **BEFORE December 31, 2008**, preferable by e-mail to:

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### **Any change of job, address, phone number, ... ?**

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