

# IBC-FLORIPA-2010

**Disclaimer:** This is an overview of the Programme structure.  
In the contributed oral the speaker is indicated in bold.

**Sunday, 5 December 2010**

**09:00**

09:00 **Short Course 1:** Competing risks and multi-state models: concepts, methods and software

*Course Tutors:* Ronald Geskus (Academic Medical Centre, Amsterdam, the Netherlands), Hein Putter (Leiden University Medical Centre, the Netherlands)

*Course registration from 09:00*

*Course Starts at 09:30*

*Course ends by 17:00*

09:00 **Short Course 2:** Genome-Wide Association Studies

*Course Tutors:* Andreas Ziegler (Universität zu Lübeck, Germany), Kristel Van Steen (Université de Liège, Belgium)

*Course registration from 09:00*

*Course Starts at 09:30*

*Course ends by 17:00*

09:00 **Short Course 3:** Multiple Imputation and its Application

*Course Tutors:* Mike Kenward/James Carpenter (London School of Hygiene and Tropical Medicine, UK)

*Course registration from 09:00*

*Course Starts at 09:30*

*Course ends by 17:00*

09:00 **Short Course 4:** Statistics for Biological Networks

*Course Tutors:* Ernst Wit (University of Groningen, The Netherlands), Veronica Vinciotti (Brunel University, UK), Vilda Purutçuoğlu (Middle East Technical University, Turkey)

*Course registration from 09:00*

*Course Starts at 09:30*

*Course ends by 17:00*

**17:00**

WELCOME RECEPTION (*Conference Venue hall*)

**Monday, 6 December 2010**

**09:00**

09:00 OPENING SESSION

*Garapuvu Theatre*

Chair: Andrew Mead, University of Warwick, United Kingdom

**10:30**

COFFEE BREAK

**11:00**

11:00 CONTRIBUTED ORAL 1: **Bayesian Methods 1**

*Chair:* Annibale Biggeri (University of Florence, Italy)

Association tests that accommodate genotyping uncertainty

**Thomas Louis**, Johns Hopkins Bloomberg SPH; Qing Li, Inherited Disease Res. Branch, NIH-Natl. Human Genome Res. Inst.; Benilton Carvalho, Cambridge Res Inst; M. Danielle Fallin, Rafael Irizarry, Ingo Ruczinski, Johns Hopkins Bloomberg SPH

Computational implementation of an reversible jump mcmc algorithm to garch models aplied to climatological time series

**Gabriel Sarmanho**, Afrânia Vieira, UnB; Paulo Lucio, UFRN

Bayesian ranking and effect-size estimation via semi-parametric hierarchical mixture models in microarray experiments

**Hisashi Noma**, Dept of Biostatistics, Kyoto Univ Sch of Public Health; Shigeyuki Matsui, Dept of Data Science, The Inst of Statistical Mathematics

Bayesian Modelling of Recurrent Events with Dependent Censoring

**Ananda Sen**, Univ of Michigan

Assessment of binary diagnostic tests by Latent Class, Bayesian and GEE Modeling in the absence of gold standard test

**Huseyin Refik Burgut**, Ilker Unal, Yasar Sertdemir, Recep Tuncer, Macit Sandikci, Cukurova Univ

Bayesian variable selection for probit mixed models

**Meili Baragatti**, Ipsogen; Francois Bertucci, Inst Paoli Calmettes; Tagett Rebecca, Ipsogen; Denys Pommeret, Inst de Mathématiques de Luminy, CNRS

11:00 CONTRIBUTED ORAL 1: **Capture/Recapture Estimation Methods**

*Chair:* Richard Barker (University of Otago, New Zealand)

Age-dependent models for recovery data on animals marked as adults

**Byron Morgan**, Rachel McCrea, Univ of Kent

Stochastic animal movement models generating circular distributions

**William Reed**, Univ of Victoria

A Dual-Record Systems Estimator When One List Contains Count Data

**Maarten Cruyff**, Peter van der Heijden, Utrecht Univ

Multispecies integrated population model for the study of synchrony in demographic parameters

**José J. Lahoz-Monfort**, Byron J. T. Morgan, Univ of Kent; Mike P. Harris, Sarah Wanless, Stephen N. Freeman, Ctr for Ecology & Hydrology

General animal movement and migration models using multi-state random walks

**Brett McClintock**, Ruth King, Univ of St Andrews; Juan Morales, Univ Nacinal del Comahue, Argentina; Jason Matthiopoulos, Len Thomas, Bernie McConnell, Univ of St Andrews

The use of mixtures in modelling the unknown arrival times of birds at stop-over sites

Eleni Matechou, **Byron J.T. Morgan**, Univ of Kent

11:00 CONTRIBUTED ORAL 1: **Survival Analysis and Cancer Risk**

*Chair:* Christine McLaren (University of California, Irvine, US)

Comparing Methods For Calculating Relative Survival: A Simulation Based Study

**Mark Rutherford**, Paul Lambert, Univ of Leicester; Paul Dickman, Karolinska Instt

Destructive weighted Poisson cure rate models

**Josemar Rodrigues**, Univ Federal de São Carlos

Survival Extrapolation in the Presence of Cause Specific Hazards

**Tatiana Benaglia**, Linda Sharples, Medical Res Council - Biostatistics Unit

A Mechanistic Breast Cancer Modeling: An Application on Invasive Ductal Carcinoma

**Gleici Perdoná**, FMRP-USP; Francisco Louzada-Neto, Juliana Cobre, UFSCAR

A Cox model with dynamic ridge penalties on time dependent effects of the covariates

**Aris Perperoglou**, Athens Univ of Economics and Business

A two-step estimator of haplotype relative risks with clustered survival data

**Daniel Gillen**, Sean Brummel, Univ of California, Irvine

**11:00 INVITED SESSION 1: Breakthroughs in longitudinal data**

*Chair:* Geert Molenberghs (University Hasselt, Belgium)

Functional Linear Models for Output-Buffered Systems

James O. Ramsay (McGill University, Canada)

Estimation of optimal treatment strategies from longitudinal observational studies with intermittent clinic visits

Andrea Rotnitsky (Universidad Di Tella, Argentina)

Model Assessment Tools for Joint Models of Longitudinal and Time-to-Event Data

Dimitris Rizopoulos (Erasmus University, The Netherlands)

Inference on treatment effects from a randomized clinical trial in the presence of premature treatment discontinuation: The SYNERGY trial

Anastasios Tsiatis (North Carolina State University, US)

**11:00 INVITED SESSION 2: Genomic data integration using sparse matrix decomposition methods**

*Chair:* Aeilko H Zwinderman (Netherlands)

A general framework for sparse matrix decomposition techniques

Daniela Witten (University of Washington, US)

Genetic control of genome wide expression in brain cancer tissue: nonlinear sparse CCA

Sandra Waaijenborg (University Medical Center Utrecht, The Netherlands)

Unravelling omics datasets with sparse PLS

Kim-Anh Le Cao (University of Queensland, Australia)

Discussant

Paul Eilers (Erasmus University Rotterdam, The Netherlands)

**12:45**

LUNCH

**14:00**

**14:00 CONTRIBUTED ORAL 2: Epidemiological Methods I**

*Chair:* Stijn Vansteelandt (Ghent University, Belgium)

Genetic Modifiers of Menopausal Hormone Therapy associated Breast Cancer Risk - A Meta-Analysis of Four Genome-Wide Association Studies

**Jenny Chang-Claude**, Rebecca Hein, Lars Beckmann, German Cancer Res Ctr; Kamila Czene, Per Hall, Karolinska Instt; Sara Lindstrom, Harvard Sch of Public Health; Jianjun Liu, Genome Inst of Singapore; Heli Nevalinna, Helsinki Univ Central Hosp; Yuqing Li, Genome Inst of Singapore; Dieter Flesch-Janys, Univ Medical Ctr Hamburg-Eppendorf

Epidemiological Model Using Cellular Automata

**Rosana Massahud**, Iraziel Charret, Univ of Lavras

Checking a semiparametric model for doubly truncated data

**Carla Moreira**, Jacobo de Uña-Álvarez, Univ of Vigo

Analysing covariates with spike at zero: conceptual issues and properties of a fractional polynomial procedure

**Heiko Becher**, Eva Lorenz, Univ of Heidelberg; Patrick Royston, MRC Clinical Trials Unit and Univ Coll; Willi Sauerbrei, Univ of Freiburg

Propensity scores and estimators of the odds ratio

**Christiana Drake**, Travis Loux, Univ of California, Davis

Choice of estimators based on different observations : Modified AIC and LCV criteria

**Benoit Liquet**, Daniel Commenges, INSERM U897 Bordeaux

#### 14:00 CONTRIBUTED ORAL 2: **Genomics**

*Chair:* Guilherme J.M. Rosa (University of Wisconsin, US)

Biodiversity estimation: unraveling the T-cell receptor repertoire in the body's cellular ecosystem

Nuno Sepulveda, Insto Gulbenkian de Ciencia; **Carlos Daniel Paulino**, Insto Superior Tecnico/ UTl, Lisbon; Michele Guindani, Univ of New Mexico; Peter Muller, M. D. Anderson Cancer Ctr; Jorge Carneiro, Insto Gulbenkian de Ciéncia

Application of the Equi-Energy sampler to mixture models

**Denys Pommeret**, Mathematical Inst of Luminy; Meili Baragatti, Ispogen and Mathematical Inst of Luminy

A Poisson Hurdle Model for Homopolymer Base-Calling of 454 Sequencing Data

**Kristof De Beuf**, Lieven Clement, Olivier Thas, Ghent Univ

On the glog-SMN distribution and its application to a gene expression problem

**Mariana Rodrigues-Motta**, Filidor Edilfonso Vilca Labra, Univ de Campinas - UNICAMP

Characteristics of dna methylation array data

**Sally Galbraith**, The Univ of New South Wales

A generalized additive model framework for underdispersed count data with an application to miRNA qPCR data

**Lieven Clement**, Peter Pipelers, Olivier Thas, Jean-Pierre Ottoy, Ghent Univ

#### 14:00 CONTRIBUTED ORAL 2: **Social Research**

*Chair:* Cristian Meza (Universidad de Valparaíso, Chile)

Exposure to road shows is associated with more knowledge, and positive beliefs, attitudes and social norms regarding exclusive breastfeeding among men and other community members in rural Zimbabwe

**Bernard Chasekwa**, Zvitambo Project

Height and union formation in India

**Jeroen Smits**, Radboud Univ Nijmegen; Christiaan Monden, Oxford Univ

Disability, Health, Poverty and Hardship: a longitudinal analysis

**Said Shahtahmasebi**, WINTEC

Bayesian hierarchical dynamic models for cortisol stress response on preschoolers: cross culture emotion regulation

**Niko Kaciroti**, Univ of Michigan

Perceptions about self-care ability of the elderly users of the gerontogeriatric nursing program of fluminense federal university

**Dirley Santos**, Univ Federal Fluminense; Marcia Andrade, Pontifícia Univ Católica; Selma Sá, Univ Federal Fluminense; Carlos Coimbra, Museu de Astronomia e Ciências Afins

Design-Based Random Permutation Models With Auxiliary Information

Wenjun Li, Univ of Massachusetts Medical Sch; **Edward J. Stanek III**, Univ of Massachusetts; Julio M. Singer, Univ de São Paulo

#### 14:00 INVITED SESSION 3: **Efficient dose finding in drug development**

*Chair:* José Pinheiro (Johnson & Johnson PRD, US)

The Challenge of Improving Dose Selection in Drug Development: Recommendations from the Adaptive Dose-Ranging Studies Working Group  
Chyi-Hung Hsu (Novartis)

Model-based Adaptive Designs for Dose-ranging Studies  
Vlad Dragalin (Wyeth Pharmaceuticals, US)

Recent Developments in Designing Experiments for Dose Finding Studies  
Christine Kiss (Bochum University, Germany)

Discussant  
Ekkehard Glimm (Novartis)

14:00 INVITED SESSION 4: **Statistical ecology and conservation**

*Chair:* Byron J Morgan (Univ of Kent, Canterbury, United Kingdom)

Genotype Uncertainty: Accounting for genotyping error in mark-recapture-type studies using low copy number DNA

Richard Barker (University of Otago, New Zealand)

The 2010 biodiversity target: are biodiversity monitoring programmes fit for purpose?  
Stephen T. Buckland (University of St. Andrews, Scotland)

Model discrimination and goodness-of-fit techniques for complex ecological models  
Rachel McCrea (University of Kent, Canterbury, UK)

Discussant  
Tore Schweder (University of Oslo, Norway)

15:45

COFFEE BREAK

16:15

16:15 CONTRIBUTED ORAL 3: **Agriculture I**

*Chair:* Sue Welham (Rothamsted Research, UK)

Mixed models with splines in an agricultural application: nitrate leaching as affected by tillage and winter cover crop management

**Esther Meenken**, Patricia Fraser, Mike Beare, Denis Curtin, Frank Table, Tina Harrison-Kirk, New Zealand Inst for Plant and Food Res

An alternative methodology for imputing missing data in trials with genotype-by-environment interaction

Sergio Arciniegas Alarcón, **Marisol García Peña**, Univ Nacional de Colombia

Strategies for screening interactions between many factors

**Susan Lewis**, Univ of Southampton

SNP genotyping of tetraploid potato cultivars: a comparison of mixture models

**Gerrit Gort**, Roeland Voorrips, Fred van Eeuwijk, Wageningen Univ; Paul Eilers, Erasmus medical center

Modelling bunch yield stability in oil palm using different stability statistics

**Maxwell Okoye**, Nigerian Inst for Oil Palm Res (NIFOR)

Structuring genotype x environment interaction by curvilinear regression

**Stanislaw Mejza**, Iwona Mejza, Poznan Univ of Life Sciences

16:15 CONTRIBUTED ORAL 3: **Experimental Design in Clinical Trials**

*Chair:* Jane Hutton (Warwick University, UK)

Optimal allocation of patients in the two-stage randomised clinical trial design

**Stephen Walter**, McMaster Univ

Sample size determination in clinical trials with multiple co-primary endpoints including

mixed continuous and binary variables

**Takashi Sozu**, Kyoto Univ; Tomoyuki Sugimoto, Toshimitsu Hamasaki, Osaka Univ

Three-arm non-inferiority trials with a prespecified margin for binary endpoints

**Eisuke Hida**, Natl Inst of Public Health; Toshiro Tango, Ctr for Medical Statistics

A comparison of methods for the statistical analysis of clustered data

**Sally Galbraith**, The Univ of New South Wales; James Daniel, Children's Medical Res Inst; Bryce Vissel, Garvan Inst of Medical Res

Genotype-stratified phase I trials in oncology

**Motomi Mori**, Yiyi Chen, Byung Park, Joshi Alumkal, Oregon Health & Science Univ

#### 16:15 CONTRIBUTED ORAL 3: High Dimensional Data I

*Chair:* Harald Binder (University Medical Center, Freiburg, Germany)

Assessing multiple micronutrient deficiencies in undernourished populations through the plasma nutriproteome

**Ingo Ruczinski**, Johns Hopkins Univ

A General Method to Identify Genes that have a Biologically Meaningful Pattern of Association with Multiple Related Phenotypes

**Stan Pounds**, St. Jude Children's Res Hosp

Disease mapping with long study periods and changing census boundaries

**Patrick Brown**, Cancer Care Ontario; Lennon Li, Steve Fan, James Stafford, Univ of Toronto

A simple method for detecting gene-gene interactions from genome-wide SNP data

**Masaru Ushijima**, Minoru Isomura, Yoshio Miki, Masaaki Matsuura, Japanese Fndn for Cancer Res

Evaluation of four discrimination rules for the assignation of metabolic functions of proteins of lactococcus lactis using phylogenetic profiles

**Liliana López Kleine**, Nicolas Molano Gonzalez, Univ Nacional de Colombia

Constrained Ordination Analysis in Metagenomics Microbial Diversity Studies

**Olivier Thas**, Ghent Univ

#### 16:15 CONTRIBUTED ORAL 3: Regression Methods

*Chair:* Ralitsa Gueorgieva (Yale University, US)

On calculating confidence intervals when using inverse probability weighting

**Hendrik Boshuizen**, Natl Inst of Public Health and the Environment

Modified Wald residuals in generalized linear models with non canonical link

**Mariana Urbano**, Clarice Demétrio, ESALQ; Gauss Cordeiro, UFRPE

Joint Method in Model Regression

**Hope Mbachu**, Imo State Polytechnic Umuagwo Owerri Imo State Nigeria

On the recoding of continuous and bounded health indexes to a binomial form: An application to quality of life scores

**Inmaculada Arostegui**, Vicente Núñez-Antón, Univ of the Basque Country (UPV/EHU)

A new strategy for meta analysis of continuous covariates in observational studies

**Willi Sauerbrei**, Institute of Medical Biometry and Informatics; Patrick Royston, MRC CTU London

Bootstrap-based methods for assesing continuous covariate effect in ROC-GAM regression models

**María Xosé Rodríguez-Alvarez**, Univ of Santiago de Compostela; Javier Roca-Pardiñas, Univ of Vigo; Carmen Cadarso-Suárez, Univ of Santiago de Compostela

#### 16:15 BIOMETRICS SHOWCASE

Presentations of the two papers judged as the best publications in Biometrics in 2008 and 2009 by members of the IBS

**18:00**

**18:00 POSTER SESSION 1**

**Session: Agricultural, Plant and Animal Sciences**

Modeling Underdispersed Longitudinal Counts

*Eduardo Davila, Luis Alberto López, Univ Nacional de Colombia*

Multiple factorial analysis apply to the interpretation of genotype by environment interactions

*Maria Gabriela Cendoya, Gabriela Paola Zapico, Juan Manuel De Santa Eduviges, Facultad de Ciencias Agrarias*

Comparison between models of hipsometric relationship with and without a spatial component for Pinus sp

*Júlio Pereira, Débora Mourão, Verônica Scalet, Carlos Souza, UFSCAR*

A Frailty Modeling Approach for Parental Effects in Animal Breeding

*Suely Giolo, Federal Univ of Parana; Clarice Demétrio, Univ of Sao Paulo*

Common bean cropping regionalization in Rio Grande do Sul state, Brazil, based on genotype x environment interaction

*Clause Fátima de Brum Piana, João Gilberto Corrêa da Silva, Univ Federal de Pelotas; Irajá Ferreira Antunes, Embrapa Clima Temperado*

Sampling methods and sample size to evaluate the maturation state of the Niagara Rosada grape

*Elton Araújo, Federal Univ of Mato Grosso do Sul*

Incorporating Soft Data in the Kriging Equations

*Megan Liedtke, Dr. David Marx, Dr. Stephen Kachman, Univ of Nebraska-Lincoln*

Bayesian multiple comparisons with skew-normal error

*Marcos Oliveira, UFSJ; Daniel Ferreira, UFLA*

Grazing Spatial and Temporal Distribution of Domestic Animals

*Maria Gabriela Cendoya, Estanislao Díaz Falú, Miguel A. Brizuela, Silvia Cid, Facultad de Ciencias Agrarias*

Spatio-temporal analysis of transmission of Avian Flu outbreak in Nigeria

*Oyelola Adegbeye, The American university of Afghanistan*

Bayesian and non-Bayesian analysis of germinations curves using a nonlinear model

*Terezinha Guedes, Robson Rossi, Clédina Acorsi, Sebastião Gazola, Univ Estadual de Maringá*

Schemes of optimal sampling in maps estimated by kriging

*Gener Pereira, Univ Estadual Paulista*

Determination of a point sufficiently close to the asymptote in nonlinear growth functions

*Lídia Carvalho, Univ Estadual Paulista*

Effect of spatial autocorrelation on accuracy estimates in land use maps derived from remote sensing

*Teresa Boca, INTA*

Influence Ratio Method: an alternative approach to cluster analysis

*Silvia Maria De Freitas, Federal University of Ceará*

Selecting the best sugarcane families based on Regression trees

*Diego Paiva Bernardes, Luis Alexandre Peternelli, Suelen Cristina Alves, Univ Federal de Viçosa*

Biplot and joint plot graphics to study the triple interaction

*Lucio Araujo, Federal Univ of Uberlândia; Mario Varela, INCA; Mirian Araújo, Federal Univ of Uberlândia; Carlos Dias, Univ of São Paulo*

The trait measured affects experimental design efficiency in a Barley variety trials

*María Inés Berro, Laura Nalbarte, Lucia Gutierrez, Univ de la Republica del Uruguay*

The Log-Generalized Modified Weibull Regression Model

*Edwin Ortega, Univ de São Paulo; Gauss Cordeiro, Univ Federal de Pernambuco; Jalmar Carrasco, Univ de São Paulo*

**Statistical models for QTL mapping associated to counting data**

*Fabyano Silva, Univ Federal de Viçosa; Karen Pallota Tunin, ESALQ-USP; Guilherme J.M. Rosa, Univ of Wisconsin*

**R functions for analyzing split-plot schemes**

*Eric Ferreira, Pórtya Cavalcanti, Univ Federal de Alfenas*

**A Conceptual Basis for the Experimental Research**

*João Gilberto da Silva, Univ Federal de Pelotas*

**Some statistical approaches in estimating lambing rates with merino ewes**

*Mario D'Antuono, Dept of Agriculture and Food, Govt of Western Australia*

**Extension to multiple covariates in the estimation of instantaneous risk function of the Aalen additive model**

*Luciane Giarola, UFSJ - Univ Federal de São João del Rei; Mario Vivanco, Marcelo Cirillo, UFLA - Univ Federal de Lavras*

**Comparison of confidence intervals methods for the size of a population under a binomial mark capture-recapture sampling**

*Luis Salasar, José Galvão, UFSCar*

**Exploration of Bayesian estimation of sensitivity and specificity in the absense of a golden standard**

*Wim Swart, Harold van der Heijden, GD Animal Health Service, Deventer, Netherlands; Arjan Stegeman, Faculty of Veterinary Med, Univ of Utrecht, the Netherlands*

**QTL detection for growth traits in swine outbred populations by Random Regression models using free softwares**

*Valéria Pinheiro, Fabyano Silva, Guilherme Rosa, Paulo Lopes, Simone Guimarães, Cosme Cruz, Univ Federal De Viçosa (UFV)*

**Censored zero-inflated gamma distribution. Estimation methods and a simulation study**

*Vanderly Janeiro, Univ Estadual de Maringá, Silvio Sandoval Zocchi, Universidade de São Paulo*

**Sample size determination for estimating distributions of fruit diameters using simulation**

*María del Carmen Romero, Univ Nacional del Ctr de la Provincia de Buenos Aires; Pablo Daniel Reeb, Univ Nacional del Comahue; Julio Alejandro Di Rienzo, Univ Nacional de Córdoba*

**Geostatistics analysis for distribution of the vector leafhopper and the disease CVC**

*Valéria Pereira, Edson Ramos, Marcello de Mello, Adrilayne Araújo, Silvia Almeida, Univ Federal do Pará*

**Spatial distribution of the Azteca Barbifex in the production of citrus from geostatistics**

*Valéria Pereira, Edson Ramos, Marcello de Mello, Adrilayne Araújo, Silvia Almeida, Univ Federal do Pará*

**A Study of the impact of the hygienic practices of milking on the total amount of bacterium found on the milk through MLG**

*Idemauro de Lara, Jeanete Moreira, Univ Federal do Rio Grande do Norte; Angela Gracindo, EMATER -RN; Genildo Pereira, EMATER-RN*

**Statistical tests in logistic regression under separation condition**

*Andre Oliveira Souza, Sebastiao Martins Filho, Univ Federal de Viçosa; Enrico Antonio Colosimo, Univ Federal de Minas Gerais; Fabyano Fonseca Silva, Univ Federal de Viçosa*

**Comparison between classical anova and ANOVA-AR in agronomic field trials, with spatial dependence, by simulation**

*Crysttian Paixão, Diogo Rossoni, Renato Lima, Univ Federal de Lavras*

**Crossover Designs: AB/BA**

*Daniele Rodrigues, UFV; Carla Vivacqua, UFRN; Antônio Carneiro, UFV*

**Identify of regression models and parameters equality applied in the seeds germination of *Jatropha curcas* L**

*Rafael Dalvi Nunes, Sebastiao Martins Filho, Adair José Regazzi, Márcio Dias Pereira, Univ Federal de Viçosa*

A classification rule involving two multivariate normal populations with estimated parameters when one population is singular

*Mbanefo Madukaife, Univ of Nigeria Nsukka*

Fouling mechanism study on the microfiltration of passion fruit juice

*Ricardo Oliveira, Sueli Barros, Diego de Paulo, Robson Rossi, Univ Estadual de Maringá*

Multivariate classification of growth models for beef lambs genetic groups

*Fernanda Silveira, Univ Federal de Lavras; Fabyano Fonseca e Silva, Univ Federal de Viçosa*

Bayesian inference for association of molecular markers (*SNP*) with weaning weight in Nellore cattle using different models

*Diego de Córdova Cucco, USP; Luis Varona, UNIZAR; José Bento Sterman Ferraz, Fernanda Marcondes de Rezende, Elisângela Chicaroni de Mattos, Joanir Pereira Eler, USP*

Sunflower yield: adjustement of data means by the combination of anova and regression models

*Maria Neves de Oliveira, César Castro, Fábio Oliveira, Embrapa Soja*

The description of new peccary species from northernmost brazilian amazonia through multivariate analysis

*Nathália Silva, Hélio Souza-Júnior, Marcelo Luna-Júnior, Antonio Pontes, Francisco Cysneiros, UFPE*

Evaluation of pattern synchrony among climatic variables using Cross Sample Entropy

*José Rodrigo Silva, Lázaro de Souto Araújo, Vinicius Pereira do Sacramento, Manoel Rivelino Oliveira, Paulo José Duarte-Neto, Tatijana Stosic, Borko Stosic, Univ Federal Rural de Pernambuco*

Variability of the multiple imputation method under different percentages of missing data

*Melissa Carvalho, Luiz Alexandre Peternelli, Mariane Alves, Univ Federal de Viçosa*

Evaluation of the experimental variation's coefficient for fruit peppers characters

*Anderson Rodrigo da Silva, Universidade Federal de Viçosa; Elizanilda Ramalho do Rêgo, Universidade Federal da Paraíba; Paulo Roberto Cecon, Moyses Nascimento, Rafael Oliveira, Elisangela Oliveira, Luciane da Silva Oliveira, Universidade Federal de Viçosa*

Approach Classical and Bayesian in symmetric models processed applied to estimate growth in height *Eucalyptus urophylla* in Gypsum Pole of Araripe – PE

*Kleber Barros, José Antônio Silva, Patrícia Barros, Univ Federal Rural de Pernambuco*

Bayesian analysis of growth curve of Nellore beef cattle

*Fabiane Silva, Elizabeth Hashimoto, ESALQ/USP; Mauricio Alencar, Embrapa Pecuária Sudeste; Alfredo R. de Freitas, Gerson B Mourao, CNPq's scholarship*

Multivariate analysis of variance for a group of variables analyzed to characterize the soil in a randomized complete blocks design

*Simone Sartorio, Marina Maestre, Sônia Piedade, Univ de São Paulo - ESALQ; César Lima, Univ de São Paulo - FZEA; Cláudio Marciano, Univ Estadual do Norte Fluminense - Ctr de Ciências e Tecnologias Agropecuárias; Fernando Oliveira, Biossolo Agricultura & Ambiente Ltda*

Seed Stress Analysis via Zero-inflated Proportion Data Models

*Afranio Vieira, Univ de Brasilia; Joseane da Silva, Juliano Pádua, Brazilian Agricultural Res Corp – EMBRAPA*

Analysis of temporal correlations of drought severity in Brazil

*Gabriel Melo, Carlos Souza, Dennis Souza, Tatijana Stosic, Borko Stosic, Univ Federal Rural de Pernambuco*

Optimization of the velocity-area method for river discharge measurement

*José Rodrigo Silva, Borko Stosic, Moacir Cunha Filho, Jose Ramon Barros Cantalice, Univ Federal Rural de Pernambuco*

Statistical analysis of family selection in sugar cane: a comparison between REML/BLUP and bayesian approaches

*Luiz Peternelli, Marcio Barbosa, Fabyano Silva, Univ Federal de Viçosa; Guilherme Rosa, Univ of Wisconsin*

Use of spatial analysis and corrected F-tests in unreplicated trials

*Francisco Babinec, EEA Anguil*

Assessment of reproducibility of animal behaviour measures

*Francisco Babinec, Mariano Alende, Gabriela Volpi Lagreca, EEA Anguil*

Analyses of nonlinear mixed-effects models with scale mixtures of normal distributions

*Cibele Russo, Univ de São Paulo; Victor Hugo Lachos, Univ Estadual de Campinas; Reiko Aoki, Gilberto Paula, Univ de São Paulo*

Optimization of fitness function in Evolutionary Computation System applied to the forecasting of time-series

*David Silva, Tiago Ferreira, Paulo Neto, Federal Rural Univ of Pernambuco*

Fitting the compound Poisson model to a mass egg data set

*Lucimary Santos, Renata Alcarde, Vanderly Janeiro, Greice Erler, Clarice Demétrio, Sônia Piedade, Octávio Nakano, ESALQ/USP*

Multivariate techniques in the study of genetic diversit

*Elisângela Oliveira, Paulo Cecon, Luciane Oliveira, Fernando Finger, Univ Federal de Viçosa; Priscila Faria, Escola Superior de Agricultura Luiz de Queiroz; Fabyano Silva, Anderson Silva, Univ Federal de Viçosa*

Non linear models fitting for balanced and unbalanced data

*Liliane Cordeiro, Diana Campos, Antônio Policarpo, UFV*

Use of geostatistics for optimization sampling of forestry inventory

*Rogério Santana, Nerilson Terra, UFV*

Aplicação de modelos de crescimento não lineares em tubarão-junteiro (*Carcharhinus porosus*)

*David Silva, Cícero Brito, José Antonio Aleixo, Rinaldo Ferreira, Eufrazio Santos, Gabriel Rivas, Univ Federal Rural de Pernambuco*

Using the UPGMA method in studies of Genetic Diversity

*Luciane Oliveira, Paulo Cecon, Elisângela Oliveira, Anderson Silva, Fabyano Silva, Fernando Finger, Univ Federal de Viçosa*

Aplicação de modelos de crescimento não lineares em leucena [*Leucaenaleucocephala* (Lam) de Wit]

*David Silva, Cícero Brito, José Antonio Aleixo, Rinaldo Ferreira, Gabriel Rivas, Eufrazio Santos, Univ Federal Rural de Pernambuco*

Aplicação de modelos matemáticos na estimativa do crescimento de eucaliptos *Eucalyptus tereticornis*

*David Silva, Cícero Brito, José Antonio Aleixo, Rinaldo Ferreira, Gabriel Rivas, Univ Federal Rural de Pernambuco*

Study of different approaches for genetic parameter estimation of visual scores in Nellore cattle

*Diego de Córdova Cucco, USP / FZEA; Luis Varona, UNIZAR; José Bento Sterman Ferraz, Rachel Santos Bueno, Elisângela Chicaroni de Mattos, Joanir Pereira Eler, USP / FZEA*

Bayesian model selection using the sparse effects, hierarchy and heredity principles

*Guilherme Biz, Silvio Zocchi, Roseli Leandro, ESALQ-USP*

Validation of a model to simulate changes of soil organic carbon stock in the arable layer

*María Monterubbianesi, Guillermo Studdert, Germán Domínguez, Univ Nacional de Mar del Plata*

Geostatistical modelling and analysis for compositional data

*Ana Martins, Univ Estadual de Maringá; Paulo Ribeiro Jr, Wagner Bonnat, Univ Federal do Paraná; Antônio Gonçalves, Univ Estadual de Maringá*

Measuring the Rectangularization of Life Tables Using the Gompertz Distribution

*Peter Pflaumer, Technical Univ of Dortmund*

Dunnet's modified test and a study of the efficiency of some multiple comparison tests

*Clarice Demétrio, ESALQ/USP; Armando Conagin, IAC; Décio Barbin, ESALQ/USP*

**Tuesday, 7 December 2010**

**08:15**

**08:15 CONTRIBUTED ORAL 4: Epidemiological Methods II**

*Chair:* Adriana Perez (The Univ of Texas Health Science Center at Houston, US)

Effect of population stratification on quantitative trait locus association analyses

**Saurabh Ghosh**, Tanushree Haldar, Indian Statistical Institute

An ascertainment-adjusted score test for gene-environment interactions in family-based association studies

**Tasha Fingerlin**, Weiming Zhang, Gary Grunwald, Univ of Colorado Denver; Carl Langefeld, Wake Forest Univ

Inference for a common odds ratio in stratified studies

**Ionut Bebu**, Christopher Loffredo, George Luta, Georgetown Univ

Poisson Regression Used to Correct Noisy Variability in the Logistic Regression: an Application to Evaluate the Survival Immediate After Cardiac Arrest in the CODE Register (Cardiac arrest Outcomes Date Evaluation)

**Mariana T. Carballo**, Helio P. Guimarães, HCor; Álvaro Avezum, Dante Pazzanese; Helder Jose de Lima Reis, Hosp de Clínicas Gaspar Viana; Jose Antonio Manetta, Hosp Albert Sabin; Ligia N. Laranjeira, Otavio Berwanger, HCor; on behalf of CODE investigators, Res Div-Dante Pazzanese Inst of Cardiology

Uncovering selection bias in case-control studies using Bayesian poststratification

**Sara Geneletti**, London Sch of Economics and Political Science; Nicola Best, Sylvia Richardson, Mireille Toledano, Paul Elliott, Imperial Coll London

Shared frailty models and the estimation of heterogeneities in transmission

**Paddy Farrington**, Steffen Unkel, Open Univ

**08:15 CONTRIBUTED ORAL 4: Experimental Design**

*Chair:* Sally Galbraith (The University of New South Wales, Australia)

Dose finding designs for responses of mixed types: the model based approach

**Valerii Fedorov**, GlaxoSmithKline

Optimal Designs for Generalised Linear Mixed Models

**David Woods**, Univ of Southampton

D-optimal designs for the two-variable binary logistic model without interaction

**Gaetan Kabera**, Medical Res Council, South Africa; Principal Ndlovu, Univ of South Africa; Linda M. Haines, Univ of Cape Town

Bayes factors and experimental design for genome-wide association studies

**Roderick Ball**, Scion (NZ Forest Res Inst Limited)

Conflicts between optimality criteria for block designs with low replication

**R. Bailey**, Queen Mary, Univ of London

Evaluation of central composite designs as an optimization method for crop production technologies under field experimentation conditions

**Dariusz Zaluski**, Janusz Gołaszewski, Aneta Stawiana-Kosiorek, Anna Imiołek, Univ of Warmia and Mazury in Olsztyn

**08:15 CONTRIBUTED ORAL 4: Mixed Models**

*Chair:* Thomas Kneib (Carl von Ossietzky Universität, Germany)

The gradient function as an exploratory goodness-of-fit assessment of the random-effects distribution in mixed models

Geert Verbeke, **Geert Molenberghs**, I-Biostat, K.U.Leuven and U.Hasselt

Random effects in cumulative mortality models

**John Hinde**, NUI Galway

New challenges in Semiparametric Nonlinear Mixed-Effects Models Estimation

Ana Arribas-Gil, Univ Carlos III de Madrid; **Cristian Meza**, Univ de Valparaíso

Approximate inference in generalized linear mixed models with flexible random effects densities

**Georgios Papageorgiou**, John Hinde, Natl Univ of Ireland, Galway

Prediction with measurement errors: do we really understand the BLUP?

**Julio Singer**, Univ de São Paulo; Edward Stanek, Univ of Massachusetts; Viviana Lencina, Univ Nacional de Tucuman; Luz Mery Gonzalez, Univ Nacional de Colombia; Wenjun Li, Univ of Massachusetts- Worcester; Silvina San Martino, Univ Nacional de Mar del Plata

The special features of multivariate regression chains

**Nanny Wermuth**, Chalmers/Gothenburg Univ

#### 08:15 CONTRIBUTED ORAL 4: **Survival Models**

*Chair:* Francisco Louzada Neto (Universidad federal de São Carlos, Brazil)

Evaluating discrimination abilities of joint models for time-to-event and longitudinal marker  
**Hélène Jacqmin-Gadda**, Inserm

Estimation of treatment effect based on possibly misspecified cox regression

**Satoshi Hattori**, Kurume Univ; Masayuki Henmi, The Inst of Statistical Mathematics

Comparing flexible Bayesian survival models in health economic evaluations

**Christopher Jackson**, Linda Sharples, Simon Thompson, MRC Biostatistics Unit, Cambridge

A Log-linear Regression Model for the Beta-Weibull Distribution

**Edwin Ortega**, Universidade de São Paulo; Gauss M. Cordeiro, Universidade Federal Rural de Pernambuco, Elizabeth M. Hashimoto, Universidade de São Paulo

Analysis of data from the MESS trial through the joint modelling of pre-randomisation event rates and multiple post-randomisation survival times with cure rates

**Jennifer Rogers**, Jane Hutton, Univ of Warwick

Mixture regression models of the residual life with a event-free fraction for censored data

Wei-Hwa Chang, Taiwan Suicide Prevention Ctr; **Chen-Hsin Chen**, Academia Sinica; Y. Q. Chen, Fred Hutchinson Cancer Res Ctr

#### 08:15 INVITED SESSION 5: **Processing and analysis of Genomic array data**

*Chair:* Ingo Ruczinski (Johns Hopkins Univ, Baltimore, MD)

Simple models for microarray data

Matthew Ritchie (The Walter and Eliza Hall Institute of Medical Research, Australia)

Multivariate mixture models for scoring copy number variation in genetic association studies  
Vincent Plagnol (University of Cambridge, UK)

Statistical assessment of chromosomal aberrations at the cohort level

Franck Picard (Laboratoire Biometrie et Biologie Evolutive, France)

Statistical models for calling genotypes and copy number in high throughput genotyping platforms: principles and software

Rob Scharpf (Johns Hopkins University, US)

**10:00**

COFFEE BREAK

**10:30**

#### 10:30 CONTRIBUTED ORAL 5: **Bayesian Methods II**

*Chair:* Carlos Daniel Paulino (University of Lisboa, Portugal)

Bayesian Hierarchical Model for Mapping Multiple QTL considering a F2 Population  
**Renato Pereira**, Roseli Leandro, ESALQ/USP

Association mapping of malting quality traits in barley and model selection  
**Lucia Gutierrez**, Univ de la Republica del Uruguay

Applications of approximate Bayesian inference for latent Gaussian spatio-temporal models  
**Wagner Bonat**, Paulo Ribeiro Jr, UFPR

Hierarchical bayesian model to integrate individual data on ecological regression analysis  
**Laura Grisotto**, Dolores Catelan, Annibale Biggeri, Dept of Statistics "G.Parenty" Univ of Florence

Bayesian analysis on 3 parameter IRT models for admission exams in UFLA, years 2006 to 2009  
**Maria Bragion**, Univ Federal de Lavras

Assessing the Spatial Distribution of Mussel Seed Using Structured Additive Regression Models for Zero-inflated Count Data  
**Maria P. Pata**, Univ of Santiago de Compostela

#### 10:30 CONTRIBUTED ORAL 5: Bioinformatics

*Chair:* Andrew Mead (Warwick University, UK)

Using statistical model to correct genomic wave in high density oligo arrays

**Jiqiu Cheng**, Katholieke Univ Leuven; Bernard Thienpont, Babraham Inst, Cambridge; Peter Konings, Evelyne Vanneste, Thierry Voet, Joris Robert Vermeesch, Yves Moreau, Katholieke Univ Leuven

Statistical methodology for the analysis of multi-sample ChIP-chip experiments

**Tristan Mary-Huard**, AgroParisTech / INRA; Marie-Laure Martin-Magniette, Caroline Berard, Stephane Robin, INRA

Treating dependent data as independent: a composite likelihood method and its applications to population genetics, phylogenetics and forensic genetics

**Arindam RoyChoudhury**, Columbia Univ

The Mathematical Modeling of Gene Regulatory Networks and the detection of interacting QTLs using Regularization Paths

**Martin Boer**, Cajo ter Braak, Fred van Eeuwijk, WUR

Association tests for X-chromosomal markers -- A comparison of different test statistics

Christina Loley, Inke König, **Andreas Ziegler**, Univ zu Lübeck

Case-Parent Triad Studies of Genetic Association and Gene-Gene Interaction in the Presence of Missing Data

**Tracy Bergemann**, Univ of Minnesota; Matthew Deyo-Svendsen, Univ of Minnesota Medical Sch -- Duluth Campus

#### 10:30 CONTRIBUTED ORAL 5: Missing Data Methods

*Chair:* Mike Kenward (London School of Hygiene & Tropical Medicine, UK)

Doubly Robust Pseudo-likelihood estimation for incomplete data

**Geert Molenberghs**, Univ Hasselt; Geert Verbeke, Katholieke Univ Leuven; Michael Kenward, London Sch of Hygiene and Tropical Med; Birhanu Teshome Ayele, Univ Hasselt

Formalising the use of causal diagrams in missing data problems

**Rhian M. Daniel**, Michael G. Kenward, Simon N. Cousens, Bianca L. De Stavola, London Sch of Hygiene and Tropical Med

Comparing Diagnostic Tests with Missing Data

**Frederico Poletto**, Julio Singer, Univ of Sao Paulo; Carlos Daniel Paulino, Technical Univ of Lisbon

The Impact of Dropouts on the Analysis of Dose-Finding Studies with Recurrent Event Data  
**Mouna Akacha**, Univ of Warwick; Norbert Benda, Federal Inst for Drugs and Medical Devices (BfArM)

A semi-parametric, time-varying means model approach to pattern mixture models

**Samantha MaWhinney**, Colorado Sch of Public Health; Jeri Harwood, Univ of Colorado Denver, Sch of Med

**10:30 CONTRIBUTED ORAL 5: High Dimensional Data II**

*Chair:* Mariza de Andrade (Mayo Clinic, US)

A Family-based Association Test to Detect Gene-Gene Interactions in the Presence of Linkage

**Lizzy De Lobel**, Ugent; Lutgarde Thijs, Tatiana Kouznetsova, Jan Staessen, KULeuven; Kristel Van Steen, Univ de Liège

Interactive multidimensional analysis tool based on radial visualization

**Carmelo A. Ávila Zarza**, Moisés Inestroza, Roberto Theron, Univ of Salamanca

A detailed view on Model-Based Multifactor Dimensionality Reduction with quantitative traits for detecting gene-gene interactions: different ways of adjusting for lower-order effects

**Jestinah Mahachie John**, Univ of Liege

Discriminant analysis of principal components: a new approach for the analysis of genetically structured populations

**Thibaut Jombart**, Imperial Coll London

Predicting Multitrait Phenotypes from Genomic and Genetic data via Gaussian Markov Random Fields and L1 Penalties

**Patricia Menendez**, Martin Boer, Cajo ter Braak, Fred van Eeuwijk, Biometris; Paul Eilers, Erasmus medical center

**10:30 INVITED SESSION 6: Spatial methods for tropical disease epidemiology**

*Chair:* Peter J Diggle (United Kingdom)

Spatio-temporal modelling of meningitis incidence in sub-Saharan Africa  
Michelle Stanton (Lancaster University, UK)

The IRI data-library: a resource for tropical disease epidemiology  
Madeleine Thomson (Columbia University, US)

Risk-factors for Leptospirosis in tropical Brazil  
Marilia Sa Carvalho (Fiocruz, Brazil)

Discussant

Renato M Assuncao (Universidade Federal de Minas Gerais, Brazil)

**12:15**

LUNCH

**14:00**

**12:15 POSTER SESSION 2**

**Session: Genetics and Genomics; Clinical Trials and Cancer Research**

Study of statistical properties of adaptive walks on correlated adaptation landscapes  
*Jose Filho, Viviane Oliveira, Universidade Federal Rural de Pernambuco*

Identifying variables associated with classification of genotypes using molecular markers and morphological traits: A Biplot representation based on Procrustes rotation

*Jhonny R Demey, Insto de Estudios Avanzados; María Purificación Galindo-Villardón, Univ de Salamanca; Asia Yusely Zambrano Rodriguez, Francia Fuenmayor, Insto Nacional de Investigaciones Agrícolas; José Luis Vicente-Villardón, Univ de Salamanca*

The Allelic Penetrance Approach: a new statistical modeling framework for genetic analysis  
*Nuno Sepulveda, Insto Gulbenkian de Ciencia; César Correia, Carlos Daniel Paulino, Insto Superior Tecnico; Carlos Penha-Gonçalves, Insto Gulbenkian de Ciencia*

**MCMC simulation methods applied to genetic mapping**

*Moysés Nascimento, Ana Carolina Campana, Luiz Alexandre Peternelli, Univ Federal de Viçosa; Adésio Ferreira, Univ Federal do Espírito Santo; Cosme Cruz, Paulo Cecon, Univ Federal de Viçosa*

**Association between responses of two methods for adaptability and stability of genotypes**

*Moysés Nascimento, Ana Carolina Campana, Luiz Alexandre Peternelli, Univ Federal de Viçosa; Marcelo Cirillo, Univ Federal de Lavras; Adésio Ferreira, Univ Federal do Espírito Santo; Reinaldo de Paula, Embrapa Pecuária Sudeste*

**Skew normal additive mixed models for gene expression data**

*Daniela Oliveira, UFSJ; Fábio Corrêa, Júlio Bueno Filho, UFLA*

**Analysis of Microarray Data using Mixed Effects Models**

*Luo Dongwen, AgRes Ltd*

**First order autoregressive panel data model applied to microarray time series analysis: a bayesian framework**

*Gilson Rocha, Fabyano Silva, Moysés Nascimento, Telma Morais, Univ Federal de Viçosa; Thelma Sáfadi, Univ Federal de Lavras*

**Clustering Electroencephalography Data Using Density Estimation**

*George von Borries, Gilson Matos, Univ de Brasília; Ricardo von Borries, Univ of Texas at El Paso*

**Bayesian estimation of redundancy measures in EST from cDNA library**

*Fernanda Paula, Fabyano Silva, Carlos Nascimento, Simone Guimarães, Sebastião Filho, Universidade Federal de Viçosa*

**Multistage strategy in the genetic mapping in family studies using SNP data**

*Mirian Souza, IME-USP; Suely Ruiz Giolo, UFPR; Julia Maria Pavan Soler, IME-USP*

**Using mixed models with a mixture of normal distributions for the random residual effect leads to a fast and powerful genomewide association test**

*Tom Cattaert, Univ of Liege; Lizzy De Lobel, Ghent Univ; Kristel Van Steen, Univ of Liege*

**Comparison of partitional and hierarchical clustering in protein data**

*Juliana Cespedes, Federal Univ of Itajubá*

**Path analysis for yield components on selection of sugarcane families selection**

*Deiciana Espósito, Luiz Peternelli, Univ Federal de Viçosa*

**Genetic Diversity among Pepper accessions using Tocher Method**

*Filipe Sávio, Priscila Faria, Escola Superior de Agricultura Luiz de Queiroz - USP; Paulo Cecon, Fernando Finger, Univ Federal de Viçosa; José Pinheiro, Escola Superior de Agricultura Luiz de Queiroz – USP*

**Incomplete Steiner Triple Systems over balanced square lattices to diallel analysis**

*Rosiana Alves, Júlio Bueno Filho, Univ Federal de Lavras*

**A two-step multiloci strategy in case-parent trio data**

*Maria Batista, Federal Univ of Ceará; Júlia Soler, Univ of São Paulo; Alexandre Pereira, Univ of São Paulo - Heart Inst (InCor)*

**Classification of alleles of a multiallelic locus in the study of genetic association with the development of diseases**

*Marcela Alicia Juliarena, Edgardo Rodriguez, Carolina Ceriani, Silvina Gutierrez, Eduardo Nestor Esteban, Facultad de Ciencias Veterinarias*

**Comparative study of methods of three-way data analysis for characterization of plant genetic resources evaluated in different environments**

*Sergio Bramardi, Andrea Lavalle, Marta Marticorena, Pablo Reeb, Univ Nacional del Comahue; Raquel Defacio, INTA; Cecilia Gonzalez, Univ Nacional de La Plata*

**Characterizing Population Genetic Structure in Outbred and Inbred Groups**

*Júlia Soler, Inst of Mathematics and Statistics*

**Comparison of Estimation Methods Under Imcomplete Samples: An Application to the Hardy-Weinberg Balance**

*Allan Robert da Silva, Carlos Raphael Daniel, Luiz Henrique Dore, Univ Federal de Sergipe*

Analyzing Gene Expression Data through Quantitative and Categorical Approaches in Congenic Rat Strains

*Júlia Soler, Inst of Mathematics and Statistics*

FLIM - Free Interface for Microarray Analysis using Bioconductor

*Luciane Oliveira, Otávio Brustolini, Paulo Cecon, Fabyano Silva, Univ Federal de Viçosa*

Hidden Markov chain on the Location of homogeneous regions in DNA sequences

*Luciano Souza, Kleber Barros, Kleber Santoro, Univ Federal Rural de Pernambuco*

Marginal (GEE) Regression Model to evaluate multiple components in Cancer-Specific Geriatric Assessment (C-SGA)

*Soe Soe Thwin, VA-Boston Healthcare System*

Quantile calculus and censored regression

*Yijian Huang, Emory Univ*

Selection of a Working Correlation Structure in the Weighted Generalized Estimating Equations Approach for Incomplete Longitudinal Data

*Masahiko Goshio, Chikuma Hamada, Isao Yoshimura, Tokyo Univ of Science*

Minimum-norm estimation for a bi-exponential survival model

*Yuval Nov, Univ of Haifa*

Fitting Poisson models sequentially to explore cancer mortality trends in Argentina

*Camila Niclis, Sonia Pou, Univ Nacional de Córdoba; Alberto Osella, Istituto Nazionale di Ricovero e Cura a Carattere Scientifico; María del Pilar Díaz, Univ Nacional de Córdoba*

The Negative Binomial-Generalized Gamma Regression Model With Cure Rate

*Gladys Barriga, Univ Estadual Paulista; Edwin Ortega, Elizabeth Hashimoto, Univ de São Paulo; Vicente Cancho, Univ Estadual Paulista*

Interactive Effects of Alcohol and Tobacco on Head and Neck Cancer, A Visualization using Bivariate Splines

*Jennifer Clark, Andrew Olshan, Amy Herring, Univ of North Carolina, Chapel Hill*

Estimators for the bivariate distribution function of censored gap times

*Luís Machado, Univ of Minho*

Modeling geographic and temporal variations in cancer mortality: environmental factor effects through multilevel approach

*Sonia Pou, Univ of Córdoba; Alberto Osella, Istituto Nazionale di Ricovero e Cura a Carattere Scientifico "Saverio de Bellis"; María del Pilar Díaz, Univ of Córdoba*

Vertical modeling: analysis of competing risks data with missing causes of failure

*Mioara Alina Nicolaie, Leiden Univrsitair Medical Ctr; Hans C. van Houwelingen, Leiden Univir Medical Ctr; Hein Putter, Leiden Univrsitair Medical Ctr*

Consequences of Dichotomization

*Frank Mannino, Valerii Fedorov, GlaxoSmithKline*

Time Varying Survival Curves

*Urania Dafni, Univ of Athens; Dimitris Karlis, Athens Univ of Economics*

Mixed response models for bladder cancer in Cordoba, Argentina

*María del Pilar Díaz, María Dolores Román, Florencia Inés Roqué, Alicia Navarro, Univ of Cordoba; Alberto R Osella, Lab of Epidemiology and Biostatistics, IRCCS Saverio de Bellis*

A generalized modified Weibull distribution for lifetime modeling

*Jalmar Carrasco, Edwin Ortega, Univ de São Paulo; Gauss Cordeiro, Univ Federal de Pernambuco*

Longitudinal count data model with heterogeneity in the intra-patient variation

*Hideaki Uehara, Tsumura & Co.; Masako Nishikawa, Kunihiko Takahashi, Eisuke Hida, Kazue Yamaoka, Natl Inst of Public Health; Toshiro Tango, Ctr for Medical Statistics*

Assessment biostatistics cardiovascular risk in individuals in the city of Belém, from the framinghan score concomitant with their independent variables

*Cássio Pinho dos Reis, Jasonn Cardoso Morais, Silvia dos Santos de Almeida, Univ Federal do Pará*

**Nutritional profile of elderly cardiac patients at a university hospital in Belém, PA**  
*Cássio Pinho dos Reis, Ana Carla Moreira da Silva, Silvia dos Santos de Almeida, Univ Federal do Pará*

**Construction of Exact Optimal Designs for the Michaelis-Menten and Hill Models**  
*Iuri Ferreira, Luzia Trinca, Cláudia Ferreira, IBB-UNESP*

**Sequential factorial design for the formulation of a culture media to optimize the biomass and bacteriocin production of lactobacillus salivarius subsp. Salivarius CRL 1328**  
*Elena Bru, María Silvina Juárez Tomás, Ctr de Referencia para Lactobacilos; Birgitt Wiese, Medische Hochschule Hannover; María Elena F. Nader-Macías, Ctr de Referencia para Lactobacilos*

**The statistical and clinical interplay in dose-finding experiments with combination therapies**  
*Mauro Gasparini, Politecnico di Torino; Stuart Bailey, Beat Neuenschwander, Novartis Pharma AG*

**Designing Experiments for a Pharmacokinetic Model with Correlated Errors**  
*Mauricio Santos, Biocinese; Luzia Trinca, UNESP*

**Longitudinal, bounded health scores modelled by censored skew-normal distributions**  
*Jane Hutton, Univ of Warwick; Elena Stanghellini, Univ of Perugia; Rosa Capobianco, Univ of Roma Tre*

**Alcohol and colorectal cancer risk: a modeling strategy for consumption and non-consumption**

*María del Pilar Díaz, Sonia Alejandra Pou, Univ of Córdoba; José Eduardo Corrente, Insto de Biociencias. Univ do Estado de São Paulo (UNESP). Campus de Botucatu*

**Comparing methods of analysis for cluster cross-over randomized trials with binary response**  
*Marta Quaglino, Leandro Kovalevski, Valeria Milanés, Facultad de Ciencias Económicas y Estadística - Univ Nacional de Rosario*

**Spatial Analysis Strategies to Study Cancer Incidence Distribution in Córdoba, Argentina**  
*Nancy Stanecka, Patricia Caro, Margarita Díaz, María del Pilar Díaz, Univ Nacional de Córdoba*

**Association Of the C Reactive Protein with the Metabolic Syndrome in Students of the Federal University of Viçosa**

*Daniele Rodrigues, Mariane Silva, Kiriaque Barbosa, Antônio Policarpo, Josefina Bressan, UFV*

**A full Bayesian semiparametric approach for modeling survival data with cure fraction**  
*Fabio Demarqui, UFMG; Dipak Dey, UCONN; Rosangela Loschi, Enrico Colosimo, UFMG*

**Kernels Techniques for Testing In Vitro “Similarity” of Drug Dissolution Profies**  
*Denis Enachescu, Cornelia Enachescu, Acad of Romania*

**Cured Fraction Bayesian Estimating on heart failure patients waiting for a transplant**  
*Paulo Júnior, UFMG; Maria Regina Tavares, UFPA*

**Bayesian Analysis for a Model for Survival Data with a Cure Rate: Estimation and Case Influence Diagnostics**

*Alessandra Sibim, Vicente Cancho, Univ de São Paulo – USP*

**The new Kum-Log-logistics distribution applied to survival data**  
*Tiago Santana, UNICAMP; Marcelino A. R. de Pascoa, Univ of São Paulo*

**The Hjorth-Poisson lifetime distribution**

*M. Aparecida Franco, Estela Bereta, Francisco Louzada Neto, Univ Federal de São Carlos*

**Efficiency of Designs for Longitudinal Recurrent Event Studies with Missing Data**  
*Elizabeth Juarez-Colunga, Simon Fraser Univ*

**The generalized time dependent logistic family with Frailty**  
*Eder Milani, Vera Tomazella, Teresa Cristina Dias, UFSCar*

**Comparative study between two Bayesian approaches in QTL mapping**  
*Andreia Meyer, Univ Estadual Paulista; Renato Nunes Pereira, Univ de São Paulo; Roseli Aparecida Leandro, Univs de São Paulo; Adhemar Sanches, Univ Estadual Paulista*

**Modeling Bayesian partition for survival data of long-term**  
*Jhon Franky, Universidade Federal de São Carlos*

**Efficiency of the use of information a priori in analysis of adaptability and stability of**

genotypes

*Moysés Nascimento, Fabyano Silva, Univ Federal de Viçosa; Thelma Sáfadi, Univ Federal de Lavras; Ana Carolina Campana, Univ Federal de Viçosa; Reinaldo Ferreira, Embrapa Pecuária Sudeste*

Grouping data from dominant markers using supervised pattern classification

*Pedro Ramos Cerqueira, Roseli Aparecida Leandro, ESALQ-USP; Juliana Garcia Cespedes, UNIFEI – Itajubá*

Bayesian reference analysis of the Hardy-Weinberg equilibrium

*Vera Lucia Tomazella, Univ Federal de São Carlos*

Test, estimation and model comparison for the meiosis I non-disjunction fraction in trisomies

*Vanessa Silva, Rosangela Loschi, Univ Federal de Minas Gerais*

Handling missing data from high-throughput protein abundance experiments

*Kevin Chang, Bioinformatics Inst, Sch of Biological Sciences, Univ of Auckland, New Zealand; Richard G. Jarrett, CSIRO Mathematics, Informatics and Statistics, Adelaide, Australia; Katya Ruggiero, Sch of Biological Sciences, Univ of Auckland, New Zealand*

Selecting an exponential random graph model for complex brain networks

*Sean Simpson, Satoru Hayasaka, Paul Laurienti, Wake Forest Univ Sch of Med*

Sample Size Calculations for Comparing Two Proportions in Clinical Research

*Arminda Siqueira, Joyce Rodrigues, Univ Federal de Minas Gerais*

Quantum Pattern Recognition of Mitochondrial DNA sequences

*Patrícia Barros, Wilson Oliveira, Kleber Barros, Univ Federal Rural de Pernambuco; Adenilton Silva, Univ Federal de Pernambuco*

## 14:00

### 14:00 CONTRIBUTED ORAL 6: Clustering and Classification

*Chair: Michal Abrahamowicz (McGill University, Canada)*

On comparison of clustering methods for pharmacoepidemiological data

**Lise Bellanger**, Fanny Feuillet, Jean-benoit Hardouin, Véronique Sébille, Univ de Nantes

Diffusion of Surgical Innovation in Kidney Cancer Patients Using Trees

**Mousumi Banerjee**, Univ of Michigan

Clustering Based on Adherence Data

**Sylvia Muyingo**, Univ of Tampere

Mixture model cluster analysis for medical diagnosis under different covariance structures using information complexity

**Bahar Erar**, Hamparsum Bozdogan, The Univ of Tennessee

Semi-Supervised Recursively Partitioned Mixture Models for Identifying Cancer Subtypes

**Devin Koestler**, Brown Univ

A statistical method for the partial area under the ROC curve based on a boosting procedure  
**Osamu Komori**, Shinto Eguchi, The institute of Statistical Mathematics

### 14:00 CONTRIBUTED ORAL 6: Longitudinal Data

*Chair: Raúl Macchiavelli (University of Puerto Rico)*

Semiparametric varying coefficient model proposals for longitudinal data

**Vicente Núñez-Antón**, Susan Orbe-Mandaluniz, Univ del País Vasco (UPV/EHU); Juan M. Rodríguez-Poo, Univ de Cantabria

Modelling the Rate of Change in a Longitudinal Study with Missing Data, Adjusting for Contact Attempts

**Mouna Akacha**, Jane L. Hutton, Univ of Warwick

Joint Modeling of Longitudinal Measurements and Interval-censored Competing Risk Data

**Ralitsa Gueorguieva**, Robert Rosenheck, Haiqun Lin, Yale Univ

Outcome dependent sampling for continuous longitudinal response data

**Jonathan Schilderout**, Vanderbilt Univ

Competing regression models for longitudinal data

**Airlane Alencar**, Julio Singer, Insto de Matemática e Estatística; Francisco Marcelo Rocha, Insto de Psicologia

A longitudinal model for repeated interval-observed data

**Amita Manatunga**, Emory Univ; Huichao Chen, Ctr for Biostatistics in AIDS Res; Robert lyles, Limin Peng, Michele Marcus, Emory Univ

#### 14:00 CONTRIBUTED ORAL 6: Stochastic Processes

*Chair:* Tom Britton (Stockholm University, Sweeden)

Estimation of periodic autoregressive processes: A frequency domain approach

**Alessandro José Sarnaglia**, Univ Federal de Minas Gerais; Valderio Anselmo Reisen, Univ Federal do Espírito Santo; Céline Lévy-Leduc, Télécom ParisTech

A stochastic model for estimating recruitment and survival of commonly grown plantation tree species in Kenya

**Vincent Oeba**, Kenya Forestry Res Inst

The stochastic system approach to life-course epidemiology

**Daniel Commenges**, INSERM; Anne Gégout-Petit, Univ Bordeaux 2

Random walk modeling of fishing vessel trajectories

**Rocio Joo**, Sophie Bertrand, Inst de Recherche pour le Développement (IRD); Jean-Michel Marin, Univ Montpellier II; Ricardo Oliveros, Insto del Mar del Perú

Improving the Prediction of Non-Linear Time Series with Hybrid Methods Using the Correct Statistical Measure

**Aranildo Lima Junior**, David Silva, Univ Federal Rural de Pernambuco; Paulo Mattos Neto, Univ Federal de Pernambuco; Tiago Ferreira, Univ Federal Rural de Pernambuco

#### 14:00 CONTRIBUTED ORAL 6: Survival Data III

*Chair:* Pedro Puig (University Autonomous of Barcelona, Spain)

A New Estimator of Survival When Death Is Reported with Delay

**T. Charles Casper**, Univ of Utah; Thomas Cook, Univ of Wisconsin-Madison

Islet Transplantation in Diabetes

**Jawahar Tiwari**, FDA

Time-to-Event Data: A Different Angle by Population Evolution Charts And New Statistical Tests

**Joachim Moecks**, BIOMCON GmbH; Walter Koehler, baseline statistics GmbH

'Designing' Observational Studies

**Cara Dooley**, Natl Univ of Ireland, Galway

Lorenz curves, concentration, and treatment-covariate interactions in survival analysis

**Marco Bonetti**, Bocconi Univ

Competing risks models with unobservable failure cause and dependence between failure causes

**Rodrigo Tsai**, Luiz K. Hotta, UNICAMP

#### 14:00 JABES SHOWCASE

Presentations of the paper judged as the best publication in JABES in 2008/9 by a member of the IBS, together with presentations of some of the other short-listed papers

15:45

COFFEE BREAK

## 16:15

### 16:15 CONTRIBUTED ORAL 7: Animal Science

*Chair:* Juan Steibel (Michigan State University, US)

Effect of consanguinity on a Holstein's Dairy Herd fertility of Central Chile. A Bayesian Generalized Mixed Model Approach

**Mario Martinez Araya**, Univ of Chile; Reinaldo Arellano-Valle, Pontifical Catholic Univ of Chile

Bayesian modelling of the mean and covariance matrix in normal nonlinear models  
**Edilberto Cepeda**, Univ Nacional de Colombia; Vicente Núñez-Antón, Univ del País Vasco

QTL mapping for swine carcass traits: a Bayesian factor analysis approach

**Fabyano Silva**, Univ Federal de Viçosa; Guilherme J.M. Rosa, Univ of Wisconsin; Gustavo de los Campos, Univ of Alabama; Paulo Sávio Lopes, Simone E. F. Guimarães, Univ Federal de Viçosa

LASSO techniques for predicting complex phenotypes using genetic markers from throughout the genome: A case study with chicken

**Júlio Bueno\_Filho**, Univ Federal de Lavras

Spatial analysis of sporadic VTEC cases: clusters and proximity to cattle farms

**Sharon Kühlmann Berenzon**, Swedish Inst for Infectious Disease Control

Modeling Measurement Errors for Dependent Data

**Tapio Nummi**, Univ of Tampere

### 16:15 CONTRIBUTED ORAL 7: Causal Inference

*Chair:* Daniel Commenges (INSERM, University Bordeaux 2, France)

Mediation Analysis of Survival Data

**Theis Lange**, Dept of Biostatistics, Univ of Copenhagen

Estimating Optimal Dynamic Treatment Regimes with Shared Decision Rules across Stages: An Extension of Q-learning

**Bibhas Chakraborty**, Columbia Univ; Erica Moodie, McGill Univ

On model selection in causal inference

**Maarten Bekaert**, Stijn Vansteelandt, Ghent Univ; Gerda Claeskens, KU Leuven

The random discontinuity design in epidemiology

**Sara Geneletti**, London Sch of Economics and Political Science; Gianluca Baio, Univ Coll London

Causal Inference in Randomized Controlled Trials with non-adherence - untestable assumptions vs uninterpretable parameters?

**Krista Fischer**, MRC Biostatistics Unit; Jack Bowden, MRC Clinical Trials Unit; Ian White, Simon Thompson, MRC Biostatistics Unit

Mendelian randomisation analysis of case-control data using Structural Mean Models

Jack Bowden, MRC Clinical Trials Unit; **Stijn Vansteelandt**, Ghent Univ

### 16:15 CONTRIBUTED ORAL 7: Environmental Research I

*Chairs:* Robert Harrison and Marcia Ciol (University of Washington, US)

A statistical distribution applied to the study of environmental quality in Santiago, Chile  
Carolina Marchant, Victor Leiva, Univ de Valparaiso; **Antonio Sanhueza**, Univ de La Frontera; Fernanda Cavieres, Univ de Valparaiso

Bayesian space-time models for responses in the exponential family: an application to a rainfall data set in Australia

**Ana Carolina da Costa**, Nícia Hansen, Marina Paez, Flávia Landim, Univ Federal do Rio de Janeiro

Smooth space-time quantile maps based on regularly spaced observations

**Dana Draghicescu**, Hunter Coll, CUNY

Credibility distributional grade geostatistics for modeling spatial inequalities

**Njeri Wabiri**, Human Sciences Res Council

Regression models for exceedance data via the full likelihood

**Fernando Nascimento**, UFPI; Dan Gamerman, UFRJ; Hedibert Lopes, Univ of Chicago

Improving velocity-area method for river discharge measurement

**Vinicius do Sacramento**, Borko Stosic, Moacyr Cunha Filho, Jose Ramon Barros Cantalice, UFRPE

**16:15 CONTRIBUTED ORAL 7: Software and Computational Methods**

*Chair:* Geert Molenberghs (University Hasselt, Belgium)

Teaching Optimal Design of Experiments Using the Software R

**Edmilson Rodrigues Pinto**, Leandro Alves Pereira, Federal Univ of Uberlandia

Canonical correlation analysis in education: associations between student evaluations of courses and instructors

**Tamara Sliusarenko**, Line Harder Clemmensen, Technical Univ of Denmark

Majority vote with bimodal distribution of noise

**Aranildo Lima Junior**, Tiago Ferreira, Univ Federal Rural de Pernambuco; Francisco Moreira, Univ Federal de Pernambuco

Power Enhanced, Bootstrapped Multiple Testing

**Rajat Mukherjee**, Nestle Res Ctr

Are descriptive multivariate techniques useful for the determination of protein functions from genomic data?

**Liliana López Kleine**, Luis Eduardo Ospina Forero, Univ Nacional de Colombia

**16:15 INVITED SESSION 7: Recent developments in estimating and modelling relative survival**

*Chair:* Niels Keiding (Denmark)

Age-standardisation of the relative survival ratios

Timo Hakulinen (Finnish Cancer Registry, Finland)

Estimating the crude probabilities of death due to cancer and other causes using flexible parametric relative survival models

Paul Lambert (University of Leicester, UK)

Goodness of fit of the relative survival models

Janez Stare (Institute for Biomedical Informatics, Slovenia)

Discussant

Paul Dickman (Karolinska Institute, Sweden)

**18:15**

**18:15 AWARDS PRESENTATION AND CELEBRATION OF 25 IBCs**

**19:30**

**Wednesday, 8 December 2010**

**MID-CONFERENCE TOURS**

**Thursday, 9 December 2010**

**08:15**

**08:15 CONTRIBUTED ORAL 8: Agriculture II**

*Chair:* Hans-Peter Piepho (Universitat Hohenheim, Germany)

Confidence intervals for cavalieri sampling

**Chris Glasbey**, Biomathematics & Statistics Scotland

Modelling a repeated ordered categorical response with penalised splines using MCEM

**Sue Welham**, Rothamsted Res; Tu Ho, James Carpenter, London Sch of Hygiene and Tropical Med

Modeling Multivariate Overdispersed Binomial Data

**Eduardo Davila**, Luis Alberto López, Univ Nacional de Colombia

Fractional and factorial designs as components of a research methodology for testing crop production technologies

**Janusz Golaszewski**, Anna Zaręba, Dariusz Załuski, Anna Imiołek, Aneta Stawiana-Kosiorek, Krystyna Żuk-Gołaszewska, Univ of Warmia and Mazury

Spatio-Temporal Modelling for Pricing Area Yield Crop Insurance Contracts

**Ramiro Ruiz-Cardenas**, Federal Univ of Minas Gerais; Elias Teixeira Krainski, Federal Univ of Paraná

Size and power properties of some tests in the Birnbaum-Saunders regression model

Artur Lemonte, **Silvia Ferrari**, Univ of Sao Paulo

#### 08:15 CONTRIBUTED ORAL 8: **Clustering in Genetics and Genomics**

*Chair:* Elizabeth Thompson (University of Washington, US)

Analyzing Time-Course Microarray Data using Functional Data Analysis

**Norma Coffey**, Natl Univ of Ireland, Galway

Clustering with exclusion zones: Genomic applications

**Mark Segal**, Yuanyuan Xiao, Univ of California San Francisco

Assessing Similarity of DNA Profiles

**Graham Hepworth**, Ian Gordon, The Univ of Melbourne

Improving visualization of interaction effects of expressed genes in microarray studies

**Elmer Fernandez**, Univ Catolica de Cordoba; Edgardo Salvatierra, Carolina Bizama, Felipe Benavente, Manuel Gidekel, VentureLab; Osvaldo Podhajcer, Insto leloir; Monica Balzarini, Univ Nacional de Cordoba

QTL Mapping in sugarcane using Composite Interval Mapping considering an integrated genetic map

**Rodrigo Gazaffi**, Gabriel R. A. Margarido, Marcelo Mollinari, Maria Marta Pastina, ESALQ/USP; Karine Miranda de Oliveira, CTC; Anete Pereira de Souza, UNICAMP; Antonio Augusto Franco Garcia, ESALQ/USP

Gene expression profiling of multiple autoimmune diseases

**Joanlise Leon Andrade**, Univ de Brasília

#### 08:15 CONTRIBUTED ORAL 8: **Latent Variable Methods**

*Chair:* John Neuhaus (University of California, San Francisco, US)

On assessing age-varying association in bivariate current status data

**Steffen Unkel**, C. Paddy Farrington, The Open Univ

Latent Class Analysis of Millon Adolescents Clinical Inventory (MACI)

**Mirta Santana**, Marcela D'Urso, Liliana Galindo, Liliana Fracchia, Univ Nacional de Tucumán

Bayes PLS: Near optimal prediction from relevant components

Inge Helland, **Solve Sæbo**, Hakon Tjelmeland, Norwegian Univ of Life Sciences

Latent class model with familial dependence to address heterogeneity in complex diseases: adapting the approach to family-based association studies

**Alexandre Bureau**, Univ Laval; Jordie Croteau, Ctr de recherche Univ Laval - Robert-Giffard; Aurélie Labbe, McGill Univ; Chantal Mérette, Univ Laval

Applications of latent variable models in health sciences

**Meriç Yavuz Çolak**, Korkut Ersoy, Başkent Univ healthcare management department

An IRT Probit Model with Skew-normal Latent Traits Distribution: An Application to the

Measurement of Depression Levels

**Caio Azevedo**, Univ of Campinas; Dalton Andrade, Federal Univ of Santa Catarina; Heleno Bolfarine, Univ of Sao Paulo

08:15 CONTRIBUTED ORAL 8: **Miscellaneous**

*Chairs:* Víctor Leiva (Universidad de Valparaíso, Chile) and Antonio Sanhueza (Universidad de la Frontera, Chile)

Time-varying coefficient model component estimation through generalized estimation equations

**Juan Sosa**, Luis Diaz, Natl Univ of Colombia

Can compositional constraints on ‘omics’ data lead analyses astray?

**Warren Muller et al**, CSIRO Mathematics, Informatics and Statistics

A cluster analysis based on vital statistics and its characterization in latin american countries  
**Claudia Castro-Kuriss**, Buenos Aires Inst of Technology

Application of neural networks in archaeometrical data

**Paulo Oliveira**, Casimiro Munita, Ipen-Cnen-Sp

A Bayesian Model Using Non-Proportionally Sampled Survival Data

**Samuel Manda**, South African Medical Res Council

An analysis of the excess mortality from dengue in epidemic periods

**Camila Resende**, Dani Gamerman, Univ Federal do Rio de Janeiro

08:15 INVITED SESSION 8: **Epidemiological surveillance: space-time approaches and multiple testing problems**

*Chair:* Annibale Biggeri (Italy)

Approaches to Space-time Surveillance

Renato Martins Assunçao (Universidade Federal de Minas Gerais, Brazil)

Hierarchical Bayesian modelling of False Discovery Rate in Disease Mapping

Dolores Catelan (University of Florence, Italy)

Point process based infectious disease surveillance

Michael Höhle (Ludwig-Maximilians Universitat, Germany)

Discussant

Paulo Justiniano Ribeiro Jr. (Universidade Federal do Paraná, Brazil)

08:15 INVITED SESSION 9: **Statistical issues in vaccine studies**

*Chair:* Tsai-Lien Lin (MD)

Statistical issues in evaluating preventive vaccines: an overview

A. Dale Horne (FDA/CBER, US)

Statistical issues for non-inferiority analysis in multi-valent vaccine trials

Frank Guanghan Liu (Merck Research Laboratories, US)

How to handle safety analyses in vaccine randomized clinical studies

Brigitte Cheuvart (GSK Biologicals, Belgium)

New statistical methods for assessing vaccine safety in the field

Paddy Farrington (The Open University, UK)

**10:00**

COFFEE BREAK

**10:20**

10:20 CONTRIBUTED ORAL 9: **Disease Mapping**

*Chair:* Dolores Catelan (University of Florence, Italy)

Chilean cardiovascular disease mortality atlases, 2000-2007

**M Gloria Icaza**, Loreto Núñez, Univ de Talca; Francisco Torres Avilés, Univ de Santiago de Chile; Nora Díaz Sanzana, Univ de Talca; José Emilio Villarroel de la Sota, Dept de Epidemiología, Ministerio de Salud de Chile

Spatio-temporal modelling of dengue risk sensitivity to climate variability in Brazil

**Rachel Lowe**, Trevor Bailey, David Stephenson, Univ of Exeter

Inferring the neighborhood structure in Bayesian spatial model

**Erica Rodrigues**, Renato Martins Assunção, UFMG

Estimating the prevalence and the force of infection of Parvovirus B19 in Belgium using hierarchical Bayesian mixture models

**Emanuele Del Fava**, Hasselt Univ

Covariace Matrices in Space-Time Bayesian Models

**Letícia Pinheiro**, Renato Assunção, Univ Federal de Minas Gerais

#### 10:20 CONTRIBUTED ORAL 9: Environmental Research II

*Chair:* Mihoko Minami (The Institute of Statistical Mathematics, Japan)

Prediction Models and Estimation Bias of Forest Above Ground Biomass: the Case of a Atlantic Forest in Espírito Santo, Brazil

**Jaime Felipe Medina Sotomayor**, Edgar De Souza Vismara, Hilton Thadeu Zarate De Couto, João Luis Ferreira Batista, Univ Of Sao Paulo

A proposal to model tied survival observations in the comparison of Cox and Weibull Proportional Hazard Models: an application in medicine

**Luis Grajales**, Universidad Nacional De Colombia

Assessing the Impact of Changes in Land-Use on Biodiversity and other Ecosystem Services

**Andrew Mead**, Dave Skirvin, Carole Wright, Univ of Warwick

A paired-tree approach to predict response of douglas-fir plantations to nitrogen fertilization

**Robert Harrison**, Kim Littke, David Briggs, Eric Turnblom, Univ of Washington; Scott Holub, Weyerhaeuser NR

Modeling soil water availability for neotropical forest trees

**Fabien Wagner**, Bruno Herault, Univ Antilles Guyane, UMR Ecofog; Damien Bonal, INRA Nancy, UMR EEF; Vivien Rossi, Cirad, UMR Ecofog

Error propagation through a Bayesian network for biomass estimation in neotropical forests

**Quentin Molto**, UAG - UMR EcoFog; Vivien Rossi, Lilian Blanc, CIRAD - UMR EcoFog

#### 10:20 CONTRIBUTED ORAL 9: High Dimensional Data III

*Chair:* Paul Eilers (Erasmus Medical Center Rotterdam, The Netherlands)

Statistical challenges in systems biology studies

**Liliana López Kleine**, Univ Nacional de Colombia

Improvements on preprocessing of massive microarray datasets

**Benilton Carvalho**, Univ of Cambridge; Robert Scharpf, Johns Hopkins Univ; Matthew Ritchie, The Walter and Eliza Hall Inst of Medical Res; Rafael Irizarry, Johns Hopkins Univ; Simon Tavaré, Univ of Cambridge

rRF: robust random forest for microarray data sets

**Erdal Cosgun**, Ergun Karaagaoglu, Hacettepe University

A New Principal Component Based Test for Comparing Bacterial Fingerprints

Guo-Chun Ding, Kornelia Smalla, Holger Heuer, Julius Kühn-Inst; **Siegfried Kropf**, Otto-von-Guericke-Univ

Random Effects Model for Multiple Pathway Analysis with Applications to Type II Diabetes Microarray Data

**Herbert Pang**, Duke Univ; Inyoung Kim, Virginia Tech; Hongyu Zhao, Yale Univ

Reference Samples in Imputation and its implications in association Analysis results

**Mariza de Andrade**, Martha Matsumoto, Elizabeth Atkinson, Sooraj Maharjan, Mayo Clinic; Sharon Kardia, Univ of Michigan

10:20 CONTRIBUTED ORAL 9: **Times Series Analysis**

*Chair:* Dani Gamerman (Universidade Federal do Rio de Janeiro, Brazil)

Modified Maximum Likelihood Estimators for Left Censored Bivariate Data Under Non-normality

**Evrim ORAL**, Louisiana State Univ Health Sciences Ctr

Comparison of classical and Bayesian approaches for intervention analysis in structural models

**Glaury Franco**, UFMG; Dani Gamerman, UFRJ; Thiago Santos, UFMG

A Temporal Bayesian model with discrete response: An Application in Epidemiology

**Francisco Torres-Avilés**, Nelly González, Univ de Santiago de Chile; Elena Carrasco, Univ de Chile

Using Cox processes to model the pulse generating mechanism underlying time series of pulsatile hormone data

**Nichole Carlson**, Gary Grunwald, Univ of Colorado Denver; Timothy Johnson, Univ of Michigan

Estimating Periodicity of Oscillatory Time-Series Through Resampling Techniques

**Maria Costa**, Barbel Finkenstadt, Univ of Warwick; Peter Gould, Univ of Liverpool; Julia Foreman, Karen Halliday, Univ of Edinburgh; Anthony Hall, Univ of Liverpool; David Rand, Univ of Warwick

Garch models for short-term climate prediction via Bayesian approach

**Gabriel Sarmanho**, Afrânia Vieira, UnB; Paulo Lucio, UFRN

10:20 INVITED SESSION 10: **Missing data in clinical trials: The way forward**

*Chair:* Herbert Thijss (Belgium)

Conceptual Considerations Regarding Choice of endpoints, Hypotheses, and Analyses In Longitudinal Clinical Trials

Craig Mallinckrodt (Eli Lilly and Company, US)

United States committee on national statistics report 'The prevention and treatment of missing data in clinical trials' - a game changer?

James Carpenter (London School of Hygiene and Tropical Medicine, UK)

Methods for handling dropout in clinical trials

Michael G. Kenward (London School of Hygiene and Tropical Medicine, UK)

Discussant

Geert Molenberghs (Universiteit Hasselt and Katholieke Universiteit Leuven, Belgium)

12:05

LUNCH

13:35

12:05 POSTER SESSION 3

**Session: Ecological and Environmental Research; Epidemiology and Infectious Diseases**

A distribution-dependent vegetation survey method

*Masae Shiyomi, Ibaraki Univ*

Sensitivity of resistance risk estimates to parameter input distributions

*Aline Maia, Embrapa Meio Ambiente; Durval Dourado-Neto, Esalq/Univ de São Paulo*

Discrete choice model in the random selection resource the habitat selection of the owl spotted (*Strix occidentalis*)

*Sandra Vergara Cardozo, Natl Univ; Carlos Tadeu Dos Santos Dias, Univ de São Paulo USP/ESALQ; Bryan Frederick John Manly, Western EcoSystemsTechnology, Inc.; Luis Alberto Lopez Perez, Natl Univ*

Bayesian Analysis to Correct False-negative Errors in Capture-recapture Photo-id Abundance

## Estimates

*Cibele da Silva, Univ de Brasilia-UnB*

Analysis on differentials in health self-awareness levels among the adult population of Brazil according to PNAD 2003

*José Rodrigo de Moraes, Univ Federal Fluminense*

Using wavelets to compare PM10 time series in São Paulo, Brazil

*Thelma Safadi, Federal Univ of Lavras*

Comparing methods for developing water quality criteria for lakes in Puerto Rico

*Raul Macchiavelli, Alexander Martínez, Univ of Puerto Rico; Jhonny Demey, Insto de Estudios Avanzados; Gustavo Martinez, David Sotomayor, Univ of Puerto Rico*

Symmetric Analysis of k pairs of ecological tables

*Nelida Winzer, Univ Nacional del Sur; Claudia Marinelli, Univ Nacional del Ctr de la Provincia de Buenos Aires; Rosana Cepeda, Univ Nacional del Ctr de la Prov. de Buenos Aires*

The effect of disturbance on the adaptation of a community in a competition model

*Ágota Drégelyi-Kiss, Óbuda Univ; Levente Hufnagel, „Adaptation to Climate Change” Res Group of the Hungarian Acad of Sciences*

Lag structure estimation of particulate air pollution and hospital admissions in amazon region

*Cleber do Carmo, Mariane Alves, Univ Federal do Rio de Janeiro; Sandra Hacon, Fundação Oswaldo Cruz*

Using the TGLM to model species-area relationship

*Marinho Andrade, USP; Katiane Conceição, UFSCar; Werner Ulrich, Nicolaus Copernicus Univ*

Analyzing the Sexual Cycle of Anemonia Viridis (Forskal, 1775) in the Nw Coast of Spain Through Use of Categorical Additive Regression Models

*Vicente Lustres-Pérez, Univ de Santiago de Compostela*

Passive participants? Role of biometrists in climate change research

*Elias Obudho, Univ of Nairobi; Vincent Oeba, Kenya Forestry Res Inst; Elizabeth Muthiani, Joseph Ndungu, Univ of Nairobi*

Evaluation of Attitudes of European Citizens Towards The Environment by Joint Correspondence Analysis

*Zerrin AŞAN, Anadolu Univ*

Mixed linear model for improving height-diameter relationship modelling in Eucalyptus grandis plantations

*Samuel Carvalho, João Batista, Edgar Vismara, Marcos Nicoletti, Tito Castro, Univ of São Paulo*

Outliers in rainfall time series: a study of the San Francisco Basin

*Alyne Silva, Nerilson Santos, Fernando Pruski, Univ Federal de Viçosa*

Relative Contributions of Crown and Phenological Traits to Growth of a Pseudo-Backcross Family ((*P.elliotti* x *P. taeda*) x *P. elliottii*) and the Open-Pollinated Families of its Pure Species Progenitors

*Patricia Munoz, Dudley Huber, Timothy Martin, Univ of Florida*

The problem of the estimation in models of linear calibration involving amazon forest trees

*Cássio Pinho dos Reis, Silvia dos Santos de Almeida, Edson Marcos Leal Soares Ramos, Univ Federal do Pará*

Multifractal analysis of time series of hotspots in Brazil

*Rosilda Souza, Tatijana Stosic, Univ Federal Rural de Pernambuco*

Multifractal analysis of temporal series of precipitation in Piracicaba, Brazil

*Antonio Samuel Silva, Univ Federal Rural do Pernabuco; Rosilda Benício, Dâmocles Aurélio Silva, Tatijana Stosic, Univ Federal Rural de Pernambuco*

A new method for Spatial Proximity Matrix

*Gérsom Santos, João Louzada, Marcelo Oliveira, Univ Federal de Lavras*

A Bayesian Approach for Nonlinear Models For Longitudinal Data

*Everton Rocha, Roseli Leandro, Univ of São Paulo*

Time series analysis applied to average velocity of winds in São João do Cariri, Brazil

Sílvio Fernando Júnior, Felipe Gusmão, Cintia Ferreira, Tiago Ferreira, UFRPE

Spatially Varying Autoregressive Processes

Aline Nobre, Fundação Oswaldo Cruz; Bruno Sansó, Univ of California Santa Cruz; Alexandra Schmidt, Federal Univ of Rio de Janeiro

Wind shear coefficients for São João do Cariri, Brazil

Diego Ferreira, Anderson Araújo, Djalma Farias, Milton Melo, Borko Stosic, Tatijana Stosic, UFRPE

General additive models to analyse urban thermal comfort in Curitiba, Brazil

Peter Bröde, Leibniz Res Ctr for Working Environment and Human Factors (IfADo); Eduardo Kruger, Univ Tecnológica Federal do Paraná – UTFPR

Cokriging and multivariable functional spatial prediction

Ramón Giraldo, Univ Nacional de Colombia; Pedro Delicado, Univ Politècnica de Catalunya; Jorge Mateu, Univ Jaume I

Bootstrap hypothesis testing in generalized additive models for comparing curves of treatments in longitudinal studies

María Laura Nores, Daniel Wunderlin, María del Pilar Díaz, Univ Nacional de Córdoba

Ecological Risk Assessment Modelling for offshore oil and gas drilling wells

Letícia Falcão Veiga, PETROBRAS - Ctr de Pesquisas e Desenvolvimento - CENPES; Fernando Hepp Pulgati, Jandyra M.G. Fachel, UFRGS - Univ Federal do Rio Grande do Sul

Leptospirosis Incidence Study Using Spatial-Longitudinal Models

Wagner Tassinari, UFRRJ

Regression Models for Analysis of Truncated Count Data

Nívea da Silva, Unicamp; Leila D. Amorim, Rosemeire L. Fiaccone, UFBA; Vanessa Morato, ISC - UFBA; Márcio Pires, ISC- UFBA

Latent Growth Curve Modeling with Missing Data: Strategies for Evaluating Children's Growth

Leila Amorim, Rosemeire Fiaccone, Lia Moraes, Ana Clara Campos, Ana Marlucia Assis, Univ Federal da Bahia; Nelson Oliveira, Univ Estadual de Feira de Santana

Comparison of Estimation Procedures for Longitudinal Count Data

Rosemeire Fiaccone, Leila Denise A. F. Amorim, Federal Univ of Bahia; Nívea Silva, State Univ of Campinas; Jackson S. Conceição, Federal Univ of Bahia

Simple dependence analysis

José Cordeiro, Sch of Med of S. J. Rio Preto

Multiple dependence analysis

José Cordeiro, Sch of Med of S. J. Rio Preto

Corrected Hellinger distance test for independence in  $2 \times 2$  frequencies tables

José Cordeiro, Sch of Med of S. J. Rio Preto

An application of generalized estimating equations (GEE) in the analysis of multiple births mortality in porto alegre, brasil (1995 - 2007)

Marilyn Agranoni, Hosp de Clínicas de Porto Alegre; Marcelo Goldani, Suzi Alves Camey, Hosp de Clínicas de Porto Alegre / Univ Federal do Rio Grande do Sul

Elaboration and standardization of a questionnaire for the assessment of knowledge about mouth cancer validated by the Item Response Theory

Maria Lucia Sundefeld, Marco Aurélio Borella Rodrigues, Univ of São Paulo State; Dalton Francisco Andrade, Federal Univ of Santa Catarina

Evaluation of statistical methods in food intake data analysis

Eloisa Elena Paschoalinotte, Jose Eduardo Corrente, Univ Estadual Paulista Julio de Mesquita Filho

The contraceptive methods among adolescents attending public schools in Santiago Island, Cape Verde

Carlos Tavares, Néia Schor, Ivan França Junior, Claudia Barros, Faculdade da Saúde Pública-USP

Efficiency of the Scott-Wild estimator for generalised case-control studies under general misspecification

*Jennifer Wilcock, Alan Lee, Univ of Auckland*

Outline of Adult Patients with SIDA Registered in the State of Pará, from January of 2007 to October of 2009

*Myrlene Campos, Edson Marcos Leal Soares Ramos, Univ Federal do Pará*

A model of time series of counts to study the association between air pollution and hospital visits for respiratory

*Alyne Silva, Univ Federal de Viçosa; Valdério Reisen, Univ Federal do Espírito Santo*

Panel Data Methodology for Assessment Impact of Shares of Sanitation, Education and Health in Reduce Number of Deaths of Children in Brazil: 1993-2005

*Elizangela Broetto, Insto Federal do Espírito Santo; Alyne Silva, Univ Federal de Viçosa; Paulo Sérgio Tafner, Univ Cândido Mendes*

A prognostic score for prediction of alzheimer dementia: comparison of Cox regression with classification tree analysis and clustering methods

*Birgitt Wiese, Susanne Steinmann, Jana Prokein, Inst for Biometrics*

Nutritional profile of children infected with human immunodeficiency virus(HIV) attending a public hospital in the city of BELÉM – PA

*Cássio Pinho dos Reis, Mônica Francisca Moraes Lins, Gisele Rocha da Silva, Ana Carla Moreira da Silva, Ana Lúcia Araújo Sató, Silvia dos Santos de Almeida, Univ Federal do Pará*

Comparison of methods estimation kriging and conditional simulation applied of vector Leafhopper

*Ana Cristina Garcêz, Univ Federal do Oeste do Pará; Edson Ramos, Marcello de Mello, Adrilayne Araújo, Silvia Almeida, Univ Federal do Pará*

The basic reproduction number in SI staged progression model: a probabilistic approach

*Juliana Kodaira, José Raimundo Passos, UNESP*

Modeling spatial distribution of cancer incidence in Cordoba, Argentina

*Maria del Pilar Diaz, Univ of Córdoba; José Eduardo Corrente, Insto de Biociencias. Univ do Estado de Sao Paulo (UNESP). Campus de Botucatu.; Alberto Rubén Osella, Epidemiology and Bioestatistics Lab, IRCCS "Saverio de Bellis"; Sonia Edith Muñoz, Laura Rosana Aballay, Univ of Córdoba*

Profile of the premature babies that were born in the foundation santa casa de misericórdia do Pará

*Edson Marcos Leal Soares Ramos, Jaqueline Mateus Furtado, Danielle da Silva Pompeu, Silvia dos Santos de Almeida, Adrilayne dos Reis Araújo, Univ Federal do Pará*

Kriging and conditional simulation applied on incidence of larvae of the vector aedes aegypti  
*Ana Cristina Garcêz, Edson Ramos, Marcello de Mello, Adrilayne Araújo, Silvia Almeida, Univ Federal do Pará*

A warning about the use of small samples in logistic regression

*Rodrigo Coster, Vanessa Leotti Torman, Suzi Alves Camey, UFRGS*

Confidence intervals of prevalences in Argentina national health and nutrition survey

*Olga Filippini, Hugo Delfino, Natl Univ of Lujan*

Analysis of correlated clustered data from families predisposed for Coronary Artery Disease  
*Sridhara Hebbagodi, Thrombosis Research Institute*

Models in time series forecast for dengue

*Carolina Bicalho, Iraziet Charret, Univ Federal de Lavras*

Latent Determinants Of Low Birth Weight Neonates In Sunyani (Brong Ahafo Region),  
Ghana

*Atinuke Adebanji, Kwame Nkrumah University of Science and Technology*

Optimal designs for discretely observed binary Markov process

*Juha Mehtälä, Kari Auranen, Sangita Kulathinal, Natl Inst for Health and Welfare*

Can Dietary Patterns Help to Identify Associations Between Diet and Disease?

*Ioannis Bakolis, Imperial Coll London*

**Analysis of accidental falls and level of physical activity in senior citizens**

*Cecilia Candolo, Univ Federal de São Carlos; Priscila Carneiro Valim-Rogatto, Univ Federal de Lavras*

**The effect of cost in add frailty in cure model**

*Vinicius Calsavara, Vera Tomazella, José Fogo, Univ Federal de São Carlos*

**General latent and lineal mixed models for obesity in Córdoba Argentina**

*Laura R Aballay, Biostatistics Unit, Sch of Nutrition, Faculty of Medical Sciences, Univ of Córdoba, Córdob;*

*Alberto R. Osella, Lab of Epidemiology and Biostatistics, IRCCS Saverio de Bellis, Castellana Grotte, Bari, Italy.; María del Pilar Díaz, IBiostatistics Unit, Sch of Nutrition, Faculty of Medical Sciences, Univ of Córdoba, Córdob*

**Analysis of individuals with tuberculosis diagnosed and confirmed in the urban area of the municipal district of Belem**

*Edson Marcos Leal Soares Ramos, Eder Martins da Rocha, Silvia dos Santos de Almeida, Adrilayne dos Reis Araújo, Anna Alice Garcia Caldas Nunes, Pâmela Tamiris Caldas Serra de Souza, Univ Federal do Pará*

**Evaluation of association between adherence to HAART and HIV-positive patients' clinical evolution**

*Dayse Campos, Marília Carvalho, Luiz Antonio Camacho, Fundação Oswaldo Cruz*

**Use of non-homogeneous Poisson processes to analyze pollution data: a Bayesian approach**

*Lorena Vicini, UNICAMP*

**13:35**

**13:35 CONTRIBUTED ORAL 10: Cancer Research**

*Chair: Timo Hakulinen (Finnish Cancer Registry, Finland)*

**Biostatistical strategies for the identification of "Single Nucleotide Polymorphisms" as predictive markers of response to radiochemotherapy in rectal cancer**

**Caroline Bascoul-Mollevi, CRLC Val d'Aurelle; Bruno Pereira, CHU Clermont-Ferrand; Evelyne Crapez, Eric Assenat, CRLC Val d'Aurelle; Andrew Kramar, Ctr Oscar Lambret**

**Comparing the cumulative false-positive risk of screening mammography programs using a discrete time survival model allowing for non-ignorable drop-out**

**Rebecca Hubbard, Diana Miglioretti, Group Health Res Inst**

**A Hidden Markov Model for Lung Cancer: Estimation of the 'Force of Exposure' and of Time to Diagnosis**

**Marc Chadeau-Hyam, Imperial Coll London; Pascale Tubert-Bitter, Chantal Guiheneuc-Jouyaux, INSERM, U1018, Biostatistic Team; Sandro Galea, Mailman Sch of Public Health, Columbia Univ; Paolo Vineis, Imperial Coll London**

**Nutrient-based dietary patterns and the risk of cancer**

**Valeria Edefonti, Univ degli Studi di Milano; Francesca Bravi, Univ degli Studi di Milano; Istituto di Ricerche Farmacologiche; Monica Ferraroni, Univ degli Studi di Milano; Adriano Decarli, Univ degli Studi di Milano; Istituto Nazionale dei Tumori, Milano**

**The Performance of Methods for Correcting Measurement Error in occupational cohort studies**

**Allodji Rodrigue, Institute For Radiological Protection And Nuclear Safety (Irsn)**

**13:35 CONTRIBUTED ORAL 10: Categorical Data**

*Chair: Brigitte Cheuvart (GSK Biologicals, Belgium)*

**Statistical methods for analysing ordinal categorical data arising from the clinical trial of drugs from the pharmaceutical industry**

**Nazneen Shariff, Edinburgh Univ, Scotland, UK**

**Reliable confidence intervals for the difference of independent binomial proportions**

**Stephan Morgenthaler, EPFL**

Adaptive designs for phase II studies in oncology

**Meinhard Kieser**, Stefan Englert, Inst of Medical Biometry and Informatics, Univ of Heidelberg

Sample Size Determination for Two Independent Populations when the Binomial Proportions are Small

**Susan Halabi**, Bercedis Peterson, Duke Univ

Stochastic Curtailed Two-stage Designs with One or Two Endpoints

**Cornelia Ursula Kunz**, Meinhard Kieser, Univ of Heidelberg

Graphical displays for incomplete contingency tables

**Serpil Aktas**, Hacettepe Univ

#### 13:35 CONTRIBUTED ORAL 10: **Fisheries Research**

*Chair:* Afranio Vieira (Universidade de Brasilia, Brazil)

Statistical analysis of the biological effects of man-induced seabed disturbance

**Beth Norris**, Martin Ridout, Univ of Kent; Jon Barry, Cefas; Byron Morgan, Univ of Kent

Intensity-dependent marking of Cox processes with pairwise interaction

**Kasper Berthelsen**, Aalborg Univ

Bayesian spatial modelling of coastal fisheries survey data

**Raymond Webster**, Intl Pacific Halibut Commission

Modelling marine biodiversity with error in covariates

**Hideyasu Shimadzu**, Geoscience Australia; Scott Foster, Ross Darnell, CSIRO Mathematics, Informatics and Statistics

Estimating patterns of co-occurrence in species abundances using point counts and foraging guilds

**Robert Dorazio**, Univ of Florida; Edward Connor, San Francisco State Univ

Approaches to analysing fishery dependent data

**Veronica Boero Rodriguez**, Bureau of Rural Sciences

#### 13:35 CONTRIBUTED ORAL 10: **Medical Research**

*Chair:* Nélida Winzer (Universidad Nacional del Sur, Argentina)

Drip-Feed Education: Statistics Notes in the British Medical Journal

**John Martin Bland**, Univ of York

Studentized Modified Maximum Contrast Method for Unequal Sample Sizes in Pharmacogenomics Studies

**Kengo Nagashima**, Josai Univ; Yasunori Sato, Harvard Sch of Public Health; Chikuma Hamada, Tokyo Univ of Science

Comparison of artificial neural network and logistic regression techniques for prediction of malignant breast lesions from MRI features

**Christine McLaren**, Wen-Pin Chen, Ke Nie, Min-ying Su, Univ of California, Irvine

Mixed treatment comparisons: combining direct and indirect evidences to compare statin doses

**Patricia Ziegelmann**, Federal Univ of Rio Grande do Sul

Built Environment and Obesity Risk Factors: Where You Live, Work and Commute

Influence Your Weight Status? A Spatial Analysis of Elementary School Personnel in New Orleans, LA

**Adriana Dornelles**, Janet Rice, Larry Webber, Diego Rose, Tulane Univ

Performance evaluation for prediction models with three outcomes: A discrimination index applied for the prediction of pregnancy location

**Ben Van Calster**, Katholieke Univ Leuven; Yvonne Vergouwe, Erasmus MC; Vanya Van Belle, Katholieke Univ Leuven; Ewout Steyerberg, Erasmus MC; Tom Bourne, Imperial Coll London; Dirk Timmerman, Univ

Hosp Leuven; Sabine Van Huffel, Katholieke Univ Leuven

13:35 INVITED SESSION 11: **Heteroscedasticity and models for dispersion parameters with applications to Genetics and Spatial Statistics**

*Chair:* Daniel Gianola (WI)

Modelling heterogeneous variances in linear, generalized linear and non linear mixed models with applications to genetics and biostatistics

Jean-Louis Foulley (INRA Jouy-en-Josas, France)

Analyzing spatial heterogeneity with geo-additive regression models

Thomas Kneib (Carl von Ossietzky Universität, Germany)

Utilizing biological information to model heterogeneous variability and co-expression in microarray experiments

Guilherme J.M. Rosa (University of Wisconsin, US)

Discussant

Juan P. Steibel (Michigan State University, US)

15:20

COFFEE BREAK

15:40

15:40 CONTRIBUTED ORAL 11: **Biosurveillance and Biosecurity**

*Chair:* Renato M. Assuncao (Universidade Federal de Minas Gerais, Brazil)

Iris Recognition Using Singular Value Decomposition

**Prachi Joshi**, Government Polytechnic,Aurangabad; Vivek Kshirsagar, Government Coll of Engineering,Aurangabad

The application of biometric information to authorization of vehicle control

**Petr Barton**, Jana Kalikova, Marek Kalika, Czech Technical Univ in Prague

Statistical models in biological dosimetry

**Pedro Puig**, Univ Autònoma de Barcelona

Dynamic Spatial Bayesain Models for Radioactivity Deposition

**Alvaro Faria**, The Open Univ

Statistical applications to the eradication of introduced pests

**David Baird**, VSN Intl

15:40 CONTRIBUTED ORAL 11: **Ecological Research**

*Chair:* Byron Morgan (University of Kent, Canterbury, UK)

Interpretative comparison of functional diversity indices

**Laura Pla**, UNEFM; Fernando Casanoves, CATIE; Julio Di Rienzo, UNC

Biometric study of shea tree (*vitellaria paradoxa gaertn.*) In nigerian grove ecology

**Maxwell Okoye**, Nigerian Institute For Oil Palm Research (Nifor)

Comparison of multiple imputation methods applied to the imputation of data used to discriminate species of sand flies (diptera: psychodidae, phlebotominae): Lutzomyia Intermedia and L. Neivai

**Rafael Eduardo Borges Peña**, Daniel Eduardo Paredes Moreno, Univ de Los Andes

Modelling occupancy from detection data collected along transects

**Gurutzeta Guillera-Arroita**, Martin S. Ridout, Byron J.T. Morgan, Univ of Kent

Inferring evolutionary birth and death rates under different species sampling schemes

**Tom Britton**, Stockholm Univ

Distributional Regression Trees: A method for studying spatial-temporal pattern in length-

frequency data

**Mihoko Minami**, Keio Univ; Cleridy Lennert-Cody, Inter-American Tropical Tuna Commission

**15:40 CONTRIBUTED ORAL 11: Epidemiological Methods III**

*Chair:* Rebecca Hubbard (Group Health Research Institute, US)

Parsimonious evaluation of interactions in epidemiology studies

**Jaya Satagopan**, Memorial Sloan-Kettering Cancer Ctr; Robert Elston, Case Western Reserve Univ Sch of Med

A multi-phase design strategy for dealing with participation bias

**Sebastien Haneuse**, Group Health Res Inst; Jinbo Chen, Univ of Pennsylvania

Multivariate Modeling of Longitudinal Observations with Excess Zeros and Measurement Error

**Victor Kipnis**, Natl Cancer Inst, USA; Raymond Carroll, Texas A&M Univ; Laurence Freedman, Gertner Inst for Epidemiology and Health Policy Res; Douglas Midthune, Natl Cancer Inst, USA

The impact of multivariate measurement error in epidemiologic studies

**Anne Thiebaut**, Laurence Watier, INSERM, U657; Douglas Midthune, Natl Cancer Inst, Div of Cancer Prevention; Jacques Benichou, INSERM, U657; Arthur Schatzkin, Natl Cancer Inst, Div of Cancer Epidemiology and Genetics; Victor Kipnis, Natl Cancer Inst, Div of Cancer Prevention

A nonlinear measurement error model to estimate usual and energy intake for episodically consumed foods

**Adriana Perez**, The Univ of Texas Health Science Ctr at Houston; Saijuan Zhang, Texas A&M University; Victor Kipnis, National Cancer Institute, US; Laurence S. Freedman, Gertner Institute for Epidemiology & Health Policy Research, Israel; Raymond J. Carroll, Texas A&M Univ

Individual patient data meta-analysis with measurement error and missing data: a unified approach through multiple imputation

**James Carpenter**, Joanna Dobson, Michael Kenward, London Sch of Hygiene & Tropical Med; Harvey Goldstein, Graduate Sch of Education, Univ of Bristol

**15:40 CONTRIBUTED ORAL 11: Survival Data IV**

*Chair:* Hans van Houwelingen (Leiden University, The Netherlands)

A new method for estimating the average number of recurring interdependent events in survival data analysis

**Sudipta Bhattacharya**, Frank Fleischer, Erich Bluhmki, Boehringer Ingelheim Pharma GmbH & Co KG

The estimation of the force of infection for HCV among Injecting Drug Users using Interval Censored Data

**Amparo Castro Sánchez**, Ziv Shkedy, Niel Hens, Marc Aerts, Hasselt Univ; Ronald Geskus, Maria Prins, Public Health Service of Amsterdam; Lucas Wiessing, European Monitoring Ctr for Drug and Drug Addiction; Mirjam Kretzschmar, Univ Medical Ctr Utrecht

Risk-Adjusted Monitoring of Time to Event

Axel Gandy, Imperial Coll London; **Jan Terje Kvaløy**, Univ of Stavanger; Alex Bottle, Fanyin Zhou, Imperial Coll London

Estimating and modelling cure within the framework of flexible parametric survival models

**Therese Andersson**, Sandra Eloranta, Paul Dickman, Karolinska Instt; Paul Lambert, Univ of Leicester

Partitioning of excess mortality associated with a diagnosis of Hodgkin's Lymphoma using flexible parametric survival models

**Sandra Eloranta**, Karolinska Instt; Paul Lambert, Univ of Leicester; Magnus Björkholm, Karolinska Univtssjukhuset, Solna; Therese Andersson, Paul Dickman, Karolinska Instt

Modeling bivariate survival data based on copulas: an application on diabetic retinopathy data

**Francisco Louzada-Neto**, Adriano Suzuki, Univ Federal de São Carlos; Vicente Cancho, Univ de São Paulo

**15:40 INVITED SESSION 12: Statistical challenges and advancements in eQTL mapping studies**

*Chair:* Yuehua Cui (MI)

Design of microarray experiments for genetical genomics studies with outbred populations  
Guilherme J.M. Rosa (University of Wisconsin, US)

Hierarchical modeling of clinical and expression quantitative trait loci  
Mikko J. Sillanpää (University of Helsinki, Finland)

Linear mixed model analysis to identify cis-acting eQTL and candidate genes in crosses between breeds of livestock  
Juan P. Steibel (Michigan State University, US)

Single Feature Polymorphism Detection in Mapping Population and their Application in eQTL Analysis

Xinping Cui (University of California Riverside, US)

**20:00**

**Conference Party:** Praia Mole Eco Village (located between Mole Beach and Conceição Lagoon). Bus transportation will be provided from official hotels to conference party.

**01:00**

**Friday, 10 December 2010**

**08:30**

**08:30 CONTRIBUTED ORAL 12: Epidemiological Methods IV**

*Chair:* James Carpenter (London School of Hygiene & Tropical Medicine, UK)

Spatial analysis of occupational accidents in Piracicaba, sp: an multinomial approach  
**Ana Carolina Mafra**, Luciana Bertoldi Nucci, Celso Stephan, Ricardo Cordeiro, State Univ of Campinas - UNICAMP; Liciana Vaz de Arruda Silveira, São Paulo State Univ - UNESP

Bayesian analysis of the log-binomial model: a comparison with the frequentist approach through simulation

**Vanessa Torman**, Suzi Alves Camey, UFRGS

Use of mixture models with spatial correlation in mapping the risk of lung cancer mortality in Southern Brazil

**Márcia Barbian**, UFMG

Detecting Rupture Events in the Development of Therapeutic Alliance

**Ines Sousa**, Univ do Minho

Propensity score and areas under a ROC curve in repeated measures clinical studies

**Alberto Morabito**, Giovanni Mistraletti, Univ of Milan

Spatial risk for ordinal responses: An example of overweight distribution

Liciana Nucci, **Ana Carolina Mafra**, Univ Estadual de Campinas; Liciana Silveira, Univ Estadual Paulista; Lia Zangiroli, Celso Stephan, Ricardo Cordeiro, Univ Estadual de Campinas

**08:30 CONTRIBUTED ORAL 12: Genetics in Agriculture**

*Chair:* Jean-Louis Foulley (INRA Jouy-en-Josas, France)

Modeling High Resolution Association Mapping of QTLs at the population level

**Prem Narain**, INSA Honorary Scientist

Modelling genetic dependencies in qtl mapping studies by means of mixed models

**Marcos Malosetti**, Martin Boer, Biometris, Wageningen UR; Ana Casas, CSIC Aula Dei Experimental Station; Jose Luis Molina Cano, Ctr UdL-IRTA; Fred A van Eeuwijk, Biometris, Wageningen UR

**Multi-Harvest-Location QTL Analysis for Sugarcane Using Mixed Models**

**Maria Marta Pastina**, ESALQ/USP; Marcos Malosetti, Biometris/ WUR; Rodrigo Gazaffi, Marcelo Mollinari, Gabriel Rodrigues Alves Margarido, ESALQ/USP; Karine Miranda Oliveira, CTC; Anete Pereira de Souza, CEBMEG/UNICAMP; Fred van Eeuwijk, Biometris/ WUR; Antonio Augusto Franco Garcia, ESALQ/USP

**Three-point appraisal of genetic linkage maps**

**Sue Welham**, Jun Wang, Graham King, Wally Gilks, Rothamsted Res

**Simulating realistic GxE and QTLxE in pepper using a crop growth model with physiological parameters without GxE**

**Paulo C Rodrigues**, Ep Heuvelink, Marco Bink, Leo Marcelis, Fred van Eeuwijk, Wageningen UR

**Statistical Analysis for Epistasis and Q x E interactions in molecular markers of a double haploid Rice population**

**Sridhara Hebbagodi**, Thrombosis Research Institute

**08:30 CONTRIBUTED ORAL 12: Imaging**

*Chair:* Chris Glasbey (BioSS)

**Model selection with adaptive grouping of variables for enhanced interpretation and generalization**

Line Clemmensen, **Andrea Mazzaretto**, Technical Univ of Denmark

**Nonparametric and Parametric Methods for Evaluating Observer Agreement via the Coefficient of Individual Equivalence**

**Michael Haber**, Yi Pan, Emory Univ

**A Bayesian Spatial Model for Identifying Localized Brain Activity Changes and Functional Connectivity**

**DuBois Bowman**, Emory Univ

**Assessing the effectiveness of tele-radiology application with latent class analysis**

**Meriç Yavuz Çolak**, Korkut Ersoy, Başkent Univ, healthcare managemnt department

**Graphical validation of unidimensionnality**

**Mounir Mesbah**, Univ Pierre et Marie Curie, Paris 6

**08:30 CONTRIBUTED ORAL 12: Infectious Diseases**

*Chair:* Michael Höhle (Robert Koch Institute Berlin, Germany)

**Synergy effects of directly acting antiviral therapies for hepatitis C in combination with standard treatment**

**Tje Lin Chung**, Inst for Biostatistics and Mathematical Modelling

**Poisson mixture regression model to analyse hiv/aids length of stay**

**Sara S. Dias**, Faculdade de Ciências Médicas - Univ Nova de Lisboa; Valeska Andreozzi, Ctr de Estatística e Aplicações da Univ de Lisboa; Maria O. Martins, Inst de Higiene e Medicina Tropical - Univ Nova de Lisboa

**Impact of Tuberculosis on Mortality among HIV Infected Patients Receiving Antiretroviral Therapy: A Comparison of Propensity Score Methods**

**Rong Chu**, McMaster Univ; Edward Mills, St Paul's Hosp, British Columbia Ctr for Excellence in HIV/AIDS; Joseph Beyene, McMaster Univ; Christine Nabiryo, The AIDS Support Organization (TASO); Lehana Thabane, McMaster Univ

**Methodological challenges for estimating when to start antiretroviral therapy in HIV+ subjects**

**Liliana Orellana**, Univ de Buenos Aires; Andrea Rotnitzky, Univ Torcuato Di Tella - Harvard Univ

**Statistical methods for dealing with missing data due to informative censoring and with time-dependent confounding, when comparing the effect of three nutritional supplementation programs on the well-being of HIV-infected infants**

**Francesca Little**, Univ of Cape Town

Modeling of Viral Kinetics in Patients Chronically Infected with Hepatitis B and D  
**Natalie Filmann**, Goethe Univ; Heiner Wedemeyer, Ingmar Mederacke, Hannover Medical Sch; Eva Herrmann, Goethe Univ

08:30 INVITED SESSION 13: **Multivariable model-building with continuous variables – a comparison of flexible regression approaches**

*Chair:* Elia Biganzoli (Italy) and Willi Sauerbrei (Institute of Medical Biometry and Informatics, Freiburg, Germany)

Comparison of alternative strategies for building a flexible regression-spline based multivariable survival model

Michał Abrahamowicz (McGill University, Canada)

Model building with P-splines and fractional polynomials

Paul Eilers (Erasmus University Rotterdam, The Netherlands)

Comparison of fractional polynomial and spline approaches in simulated and real data based on new measures

Harald Binder (University Medical Centre, Freiburg, Germany)

Discussant

Christel Faes (Hasselt University, Belgium)

10:15

COFFEE BREAK

10:45

10:45 CONTRIBUTED ORAL 13: **Disease Epidemiology**

*Chair:* Patricia Ziegelmann (Federal Univ of Rio Grande do Sul, Brazil)

Modeling Plague. Nonantola, Italy, 1630: A preliminary analysis

**Marco Bonetti**, Guido Alfani, Rodolfo Baggio, Bocconi Univ; Pasquale Cirillo, Univ of Bern; Rebecca Graziani, Bocconi Univ

The effect of sampling interval on the estimation of transmission dynamics of streptococcus pneumoniae

**Panu Erästö**, Natl institute for health and welfare; Fabian Hoti, Aalto Univ Sch of Science and Technology; Kari Auranen, Natl institute for health and welfare

Statistical issues in studying the relative importance of Body Mass Index, Waist Circumference, Waist Hip Ratio and Waist Stature Ratio to predict type 2 diabetes

**Narasimha Bhamidipati**, Natl Inst of Epidemiology

Estimating Vaccination Coverage for the Trivalent Measles-Mumps-Rubella Vaccine

**Nele Goevaerts**, Niel Hens, Hasselt Univ; Heidi Theeten, Univ of Antwerp; Marc Aerts, Hasselt Univ; Pierre Van Damme, Philippe Beutels, Univ of Antwerp

Estimation of prevalence of dementia in France

**Pierre Joly**, Daniel Commenges, Hélène Jacqmin-Gadda, Karen Leffondré, INSERM, U897

Pregnancy-associated breast cancer (PABC) and mortality: the influence of proximity to delivery and time-since-diagnosis

**Anna Johansson**, Therese Andersson, Karolinska Instt; Sven Cnattingius, Karolinska Instt at Karolinska Univ Hosp Solna; Chung-Cheng Hsieh, Univ of Massachusetts Medical Sch; Mats Lambe, Karolinska Instt

10:45 CONTRIBUTED ORAL 13: **Genetics**

*Chair:* Robert Elston (Case Western Reserve University, US)

Applying nonlinear mixed regression models in the design of new probiotic products

**Birgitt Wiese**, Inst for Biometrics; Elena Bru, María Silvina Juarez Tomás, Carolina Espeche, Ctr de Referencia para Lactobacilos; Natalia Cecilia Maldonado, Ctr de Referencia; Esteban Vera Pingitore, María

Elena Fatima Nader-Macías, Ctr de Referencia para Lactobacilos  
Symbolic SNP tree for Hepato Cellular Carcinoma Progression  
**Tae Rim Lee**, Korea Natl Open Univ; Edwin Diday, Univ 9 at Dauphine Paris  
Descent patterns in pedigrees imputed from genomic marker data  
**Elizabeth Thompson**, Univ of Washington  
Mixed Models in Genetic Mapping using Family-Based Designs  
**Nubia Esteban**, Univ of São Paulo  
Gene-specific Dosing  
Ishapathik Das, Indian Inst of Technology Bombay; Nathan H. Xu, Medical Coll of Georgia; **Siuli Mukhopadhyay**, Indian Inst of Technology Bombay

10:45 CONTRIBUTED ORAL 13: **Modelling**

*Chair:* John Hinde (National University of Ireland, Galway, Ireland)

Mixed effects models with censored response  
**Florin Vaida**, Univ of California, San Diego  
Unbiased Estimates of Uncertainty in General Linear Regression  
**Kenneth K. Lopiano**, Linda J. Young, Univ of Florida; Carol A. Gotway, Ctrs for Disease Control  
Cross validation of linear prediction models  
**Wiebe Pestman**, Univ Medical Ctr Utrecht  
Modelling of vaccine preventable diseases by age-dependent branching processes  
**Maroussia Slavtchova-Bojkova**, Sofia Univ  
Analysing child survival in Ghana  
**Kaku Nokoe**, Univ for Development Studies  
Bayesian Estimation Methods in Beta Regression Models  
**Mariana Souza**, Helio Migon, UFRJ

10:45 CONTRIBUTED ORAL 13: **Multiple Testing**

*Chair:* Víctor Kipnis (National Cancer Institute, US)

Multiple comparison procedures in general parametric models  
**Ekkehard Glimm**, Frank Bretz, Novartis; Torsten Hothorn, Inst f ur Statistik, Ludwig-Maximilians-Univ München; Peter Westfall, Texas Tech Univ  
Simultaneous confidence intervals based on the signed root deviance applying linear constraints on the parameters  
**Daniel Gerhard**, Univ of Hannover  
Minimal cost multi stage designs for genome wide association studies using customized DNA chips  
Hans-Helge Müller, Univ of Munich; Thuy Trang Nguyen, Roman Pahl, **Helmut Schäfer**, Philipps-Univ Marburg  
Multiple Testing Methods in Clinical Trials  
**David Afshartous**, Univ of Miami; Michael Wolf, Univ of Zurich  
Evaluation of testing methods for multiple correlated endpoints  
**Ting-Li Su**, John Whitehead, Lancaster Univ, UK; Michael Branson, Ekkehard Glimm, Novartis Pharma AG, Basel, Switzerland  
One sided-tests based on efficacy-toxicity trade-off in randomized controlled trials  
**Masako Nishikawa**, Natl Inst of Public Health; Toshiro Tango, Ctr for Medical Statistics; Megu Ohtaki, Hiroshima Univ; Eisuke Hida, Natl Inst of Public Health

10:45 INVITED SESSION 14: **Modern developments in the design and analysis of plant and tree breeding variety trials**

*Chair:* Emlyn Williams (Australia)

Linear variance models for plant breeding trials

Hans-Peter Piepho (Universitat Hohenheim, Germany)

Embedded partially replicated designs for grain quality testing

Robin Thompson (Queen Mary College, University of London, UK)

Efficiency of unreplicated field trials for estimating genetic values

Salvador Gezan (University of Florida, US)

The use of modern experimental design and analysis methodology in a commercial breeding company

Mark Cooper (Pioneer Hi-bred International, US)

**10:45 INVITED SESSION 15: New directions in interval censored time to event data**

*Chair:* Somnath Datta (KY)

Estimating functions for the analysis of clustered current status data

Richard Cook (University of Waterloo, Canada)

Subtyping of tumors at diagnosis: application of current status data methods

Debashis Ghosh (Penn State University, US)

Estimation in illness-death models with all transitions interval-censored

Niels Keiding (University of Copenhagen, Denmark)

Discussant

Hans van Houwelingen (Leiden University, The Netherlands)

**12:30**

LUNCH

**14:15**

**12:30 POSTER SESSION 4**

**Session: General applications**

Stated Choice Experiments that Incorporate Position Effects

*Stephen Bush, Univ of Technology, Sydney*

On the superposition of overlapping Poisson processes and nonparametric estimation of their intensity function

*Gustavo Gilardoni, Univ de Brasília; Enrico Colosimo, Univ Federal de Minas Gerais*

Random time varying model coefficient estimation through radial basis functions

*Juan Sosa, Luis Díaz, Natl Univ of Colombia*

Risk Trajectories of Locomotor Disability of the Aging Indian

*Dilip Nath, Nazrul Islam, Gauhati Univ*

Reference Intervals: Tolerance Estimation versus Quantile Estimation

*Karl-Ernst Biebler, Ernst-Moritz-Arndt-Univ*

Computation of the noncentral gamma distribution, its inverse and noncentrality parameter

*Izabela Oliveira, Daniel Furtado Ferreira, Federal Univ of Lavras*

The effects of lifestyle modification on metabolic syndrome: a multivariate meta-analysis using mets-simulator

*Kazue Yamaoka, Natl Inst of Public Health; Makoto Zushi, Tsumura & Co, Japan; Eisuke Hida, Natl Inst of Public Health; Toshiro Tango, Ctr for Medical Statistics*

RUNNER - A New R Interpreter

*Julio A. Di Renzo, Univ Nacional de Córdoba*

Analyzing the time to complete the undergraduate Statistics course at the Federal University

of Parana, Brazil

*Nelva Sganzerla, Suely Giolo, Federal Univ of Parana*

The latent class model to evaluate genotype and phenotype clinical predictors of oral potentially malignant disorders and oral cancer

*Mabel Brunotto, Univ Nacional de Córdoba*

A modified approximate cusum chart for monitoring time-series of counts

*Giuseppe Rossi, Simone Del Sarto, Natl Res Council - Inst of Clinical Physiology - Unit of Epidemiology and Biostatistics; Marco Marchi, Dept of Statistics, Univ of Florence*

The Beta Exponentiated Weibull Distribution

*Gauss Cordeiro, Univ Federal Rural de Pernambuco; Antonio Gomes, Cibele da Silva, Univ de Brasília; Edwin Ortega, Escola Superior de Agricultura Luiz de Queiroz - Univ de São Paulo*

Method of Fieller versus Bootstrap to estimate the variance of  $LD_{50}$  in Dose-Response Models  
*Silvia Maria de Freitas, Federal University of Ceará*

Application of the framework for evaluating complex interventions in health care to care pathways

*Massimiliano Panella, Lucio Palin, Amedeo Avogadro Univ; Sara Marchisio, Health Authority of Vercelli*

Extent and Influence of Recreational Drug Use on Men and Women Aged 15 Years and Older in South Africa

*Peter Njuho, Human Sciences Res Council*

Impact of the REUNI governamental program on rental prices in Alfenas, Brazil

*Eric Ferreira, Diego Mequelinio, Wander Cipriano, Univ Federal de Alfenas*

Leverage analysis for linear mixed models

*Juvêncio Nobre, Federal Univ of Ceará; Julio Singer, Univ of São Paulo*

Item Response Theory Models with Spatial Structure

*Sheila Neves, Marina Paez, UFRJ*

Consumption frequency of chocolate products by young people in Alfenas, Brazil

*Eric Ferreira, Rafael Bastos, Marcela Rocha, Nathalia Santos, Vivian Miranda, Univ Federal de Alfenas*

Evaluating the occurrence of cycles in quality control charts for pasteurized milk variables

*Eric Ferreira, Rafael Bastos, Univ Federal de Alfenas*

Time series with ordinal data

*Maria Sílvia Moura, UFSCar*

Predicting match outcomes in the english premier league: what will be the final rank?

*Adriano Suzuki, Francisco Louzada-Neto, Univ Federal de São Carlos*

Monitoring of patients reported with aids at the hospital universitário joão de barros barreto via logistic regression

*Adrilayne dos Reis Araújo, Shirlaine Moraes e Souza, Univ Federal do Pará*

Survival Analysis of Patients with Diabetes hospitalized at the Hospital Universitário João de Barros Barreto

*Adrilayne dos Reis Araújo, Gilzibene Marques da Silva, Univ Federal do Pará*

Selecting model using the beta modified Weibull distribution in survival analysis

*Giovana Silva, Valdemiro Vigas, Federal Univ of Bahia*

Method for computing the noncentrality parameter of the sample multiple correlation coefficient distribution

*Daniel Ferreira, Univ Federal de Lavras*

Linear Mixed Models in Actuary: Diagnostic Methods and Application

*Luis Gustavo Pinho, Juvêncio Nobre, FUC - Federal Univ of Ceará*

Statistical methods to assess the self-compiled surveillance tool for communication development used in a Primary Health Care Hospital

*Legesse Kassa Debusho, Univ of Pretoria*

Factor Structure of the Multi-item Scale to Evaluate the Application of people management in Small and Medium Enterprises

*Marcelo Tavares, Claudinê Carvalho, Évora Naves, Univ Federal de Uberlândia*

Prediction of cutaneous and ocular lesions in type 2 diabetic patients

*Larisa Carrera, Universidad Nacional del Litoral; Alberto D'ottavio, Universidad Nacional de Rosario; Liliana Contini, Mauro Colombini, Marisa Gionotti, Universidad Nacional del Litoral; Mabel D'arrigo, Universidad Nacional de Rosario; Elena Fernandez, Universidad Nacional del Litoral*

Principal components analysis in meta-analysis to obtain prediction equations of energetic values of poultry feedstuffs

*Flávia Cristina Martins Queiroz Mariano, Renato Ribeiro de Lima, Paulo Borges Rodrigues, Renata Ribeiro Alvarenga, Germano Augusto Jerônimo do Nascimento, Federal Univ of Lavras*

Factors Associated with Mental Disorders in Adolescents Pregnant

*Silvia Rodrigues, Silvia Almeida, Rodrigo Torres, Edson Ramos, Adrilayne Araújo, Univ Federal do Pará*

Statistical evaluation of motorcycle taxi driver's characteristics of Cabanos Village, Brazil  
*Adrilayne dos Reis Araújo, Galafre Guttemberg da Costa Filho, Univ Federal do Pará*

Latent Variable Models to assess Relationship between Communication and Information Technology and Socio-economic Development

*Cecilia Beatriz Diaz, Margarita Diaz, María del Pilar Díaz, Univ Nacional de Córdoba*

Bivariate variable length memory chains applied to linguistics

*Denise Duarte, UFMG*

Recommendations of the values of standardized decision interval Tabular Cusum Chart

*Rodrigo Lara, José Ivo Ribeiro Júnior, Univ Federal de Viçosa*

Assessment through control chart of collection preventive exams of cervical cancer, held in para june 2006 to march 2009

*Edson Marcos Leal Soares Ramos, Helen Tatiana Saldanha da Silva Ribeiro, Silvia dos Santos de Almeida, Adrilayne dos Reis Araújo, Priscila Alcantara Figueira, José Messias Fonseca da Silva, Univ Federal do Pará*

Post-Fractionated Strip-Block Design: A Practical Example

*Daniele Rodrigues, Carla Vivacqua, Antônio Carneiro, Diana Oliveira, Elisângela Oliveira, UFV*

Comparison of non-parametric estimators for survival functions with interval censoring

*Andressa Oliveira, Mário Vivanco, Univ Federal de Lavras*

Comparison between the estimator of the population total with replacement in two-stage sampling and the Regression Estimator: Application to real data

*Mayo Polo, Mauricio Rodriguez, Universidad Nacional de Colombia*

Monitoring of Recurring Event for Demographic and Actuarial Information

*Julian Sánchez, Univ Nacional de Colombia*

Patients' satisfaction with health care services in Mexico City

*Rebeca Aguirre-Hernandez, Univ Nacional Autonoma de Mexico*

Accounting to scaling differences in a TV sensory panel

*Isabel Amorim, Technical Univ of Denmark and Ctr Universitário do Sul de Minas; Per Brockhoff, Technical Univ of Denmark*

Statistical study from the diet profile of the Federal University of Pará students

*Vanessa Mayara Pamplona, Edson Ramos, Gesiane Leao, Priscila Figueira, Monique Gomes, Universidade Federal do Para*

Statistical measurement of the predictive capacity of classification models in medical data

*Paulo Ferreira da Silva, Francisco Louzada Neto, Univ Federal de São Carlos; Gleici Perdoná, Elisabeth Viera, Univ de São Paulo*

A comparative study between conjoint analysis and the constant sum approach to estimate relative importance of factors

*Adriana Dias, Univ Federal de Lavras; Carlos Henrique Osório Silva, Fabyano Fonseca e Silva, Luiz Alexandre Peternelly, Valéria Paula Rodrigues Minim, Univ Federal de Viçosa*

Column effects model for HIV/AIDS data

*Serpil Aktaş, Hande Konşuk, Hacettepe Univ*

Multivariate normality of data described by linear model

*Zofia Hanusz, Joanna Tarasinska, Univ of Life Sciences*

Factor Struture of the CHQ-PF50 Applied to the caregivers of children and adolescents with cerebral palsy

*Rogério Pinto, Nivea Morales, Carlos Silva, Renata Sá, Universidade Federal de Uberlândia*

Kumaraswamy Regression Model

*Luiz Henrique Dore, Univ Federal de Sergipe; Lucas G. M. Soares, Neurotech Ltda.; Oscar F. F. Raposo, Univ Federal de Sergipe*

SIMEX estimation in a model with heteroscedastic measurement errors with replicated observations

*Willian Oliveira, Mário de Castro, Insto de Ciências Matemáticas e de Computação, Univ de São Paulo - ICMC / USP*

Comparison of area of influence and health service market using tuberculosis notification in the city of Rio de Janeiro, Brazil

*Rejane Pinheiro, Marcos Pinheiro, Luís Ivan Valencia, UFRJ; Mônica Magalhães, FIOCRUZ*

Proposal and evaluation of the methods: probit up and down and probit isotonic

*Lucas Chaves, Univ Federal de Lavras; Edcarlos Miranda de Souza, Univ Federal do Acre; Joel Augusto Muniz, Univ Federal de Lavras*

The misuse of margin of error in election polls

*Yury Silva, Carlos Henrique Silva, Univ Federal de Viçosa; Leila Chagas, Univ Federal Fluminense; Elisângela Oliveira, Univ Federal de Viçosa; Pítias Teodoro, Univ Federal Fluminense*

The Complementary Exponential-Geometric Distribution with aleatory terms for Univariate Survival Data

*Mary Roman, Francisco Louzada Neto, Cynthia Tojeiro, UFSCar*

Detection of Significant Spatial Clusters for homogeneous and Non-homogeneous Spatial Point Processes

*Marcos Antonio Santos, UFMG*

Statistical techniques for the evaluation of new risk markers

*Rodrigo dos Reis, Enrico Colosimo, Maria Nunes, UFMG*

Corrected Pearson residuals for simplex regression models

*Lucimary Santos, Clarice Demétrio, ESALQ/USP; Gauss Cordeiro, Univ Federal Rural de Pernambuco; Mariana Urbano, ESALQ/USP*

A Bayesian analysis for repetead, overdispersed count data

*Fernanda Rizzato, Clarice Demétrio, Roseli Leandro, ESALQ-USP; Geert Molenberghs, I-BioStat*

Bayesian Analysis of Scale Mixtures Log-Birnbaum-Saunders Regression Models with Censored Data

*Vicente Cancho, Victor Lachos, Univ de São Paulo; Dipak Dey, Univ of Connecticut*

A Bayesian estimation of lag length in distributed lag models

*Carlos Diniz, José Galvão Leite, Camila Furlan, UFSCar*

Graphical analysis of the efficiency of single imputation by normal distribution and of multiple imputation

*Luiz Alexandre Peternelli, Melissa Pisaroglo de Carvalho, Univ Federal de Viçosa; Carina de Oliveira Anoni, Escola Superior de Agricultura Luiz de Queiroz; Emmanuel Kennedy da Costa Teixeira, Univ Federal de Viçosa*

A worst-case bound approach to missing data problems

*Masayuki Henmi, The Inst of Statistical Mathematics*

Crossover designs in bioequivalence studies: theoretical and practical issues

*Arminda Siqueira, Rodolfo Santos, Joyce Rodrigues, Univ Federal de Minas Gerais; Daniela Braga, Agência Nacional de Saúde Suplementar; Paula Chellini, Ctr de Pesquisa em Biotecnologia*

Modeling the survival times of patients diagnosed with Chagas disease

*Fabio Demarqui, Rodrigo Reis, Maria Nunes, Enrico Colosimo, UFMG*

Overdispersion and Natural Mortality

*Mariana Urbano, Clarice Demetrio, Dept de Ciencias Exatas, ESALQ/USP; John Hinde, NUI Galway*

Reference prior in variance components estimation

*Adhemar Sanches, Univ Estadual Paulista – UNESP*

Operator BLUP's characterization in hierarchical linear models

*Fernando Velasco, Mario Ojeda, Univ of Veracruz*

## 14:15

### 14:15 CONTRIBUTED ORAL 14: Clinical Trials

*Chair: Julio da Motta Singer (Universidade de Sao Paulo, Brazil)*

Surrogate markers in multiple trials

**Jeremy Taylor**, Yun Li, Univ of Michigan

Non-parametric two-sample tests: tuning of raw data before ranking

**Joachim Moecks**, BIOMCON GmbH

A new location-scale test based on a combination of the Levene and Lepage tests

**Markus Neuhauser**, RheinAhrCampus

Extending recurrence-time models of periodic screening to accommodate time-varying incidence and sensitivity

**Cristina Oancea**, Timothy Church, Univ of Minnesota

Application of Simple Statistical Methods to Evaluate Possible Data Fabrication: an Example Using the ACT TRIAL

**Mariana T. Carballo**, Alessandra A. Kodama, Alexandre Biasi Cavalcanti, Anna M. Buehler, Otavio Berwanger, HCor

Performance of likelihood ratio and score tests for detecting a single outlier under a variance shift outlier model in the linear mixed model

**Freedom Gumedze**, Univ of Cape Town

### 14:15 CONTRIBUTED ORAL 14: Correlated Data Methods

*Chair: Vicente Núñez-Antón (University of the Basque Country, Spain)*

Joint model for times to tumor progression and overall survival dependence : illustration of the R package FRAILYPACK

**Virginie Rondeau**, INSERM U897 (Biostatistic); Stefan Michiels, Inst Gustave-Roussy; Jean Pierre Pignon, Inst Gustave Roussy

Estimation of covariate effects in generalized linear mixed models with a misspecified distribution of random intercepts and slopes

**John Neuhaus**, Charles McCulloch, Univ of California, San Francisco

Alternative Solution to Separation for Clustered Binary Data

**José Cortiñas Abrahantes**, Hasselt Univ

Semiparametric estimation in the bivariate correlated gamma frailty model

**Diana Pietzner**, Andreas Wienke, Univ Halle-Wittenberg

FRAILYPACK: An R package for the analysis of correlated survival data

**Virginie Rondeau**, Yassin Mazroui, INSERM; Juan Ramon Gonzalez, CREAL

A Family of Generalized Linear Models for Repeated Measures With Normal and Conjugate Random Effects

**Clarice G.B. Demétrio**, ESALQ/USP; Geert Molenberghs, Ctr for Statistics, Hasselt Univ; Geert Verbeke, Katholieke Univ Leuven; Afrânio Vieira, Univ de Brasília

**14:15 CONTRIBUTED ORAL 14: Surveillance and Monitoring**

*Chair:* Stephen T. Buckland (University of St. Andrews, Scotland)

Challenges in adapting sequential designs to observational post-licensure vaccine safety studies

**Jennifer Nelson**, Andrea Cook, Shanshan Zhao, Group Health Res Inst, Univ of Washington; Onchee Yu, Group Health Res Inst; Lisa Jackson, Group Health Res Inst, Univ of Washington

Real-time Bayesian Risk Prediction for Epidemic Management

**Chris Jewell**, Gareth Roberts, Univ of Warwick

A maximum scan score-type statistic based on Anscombe's variance stabilization transformation for disease clustering

**Kunihiko Takahashi**, Natl Inst of Public Health; Toshiro Tango, Ctr for Medical Statistics

Estimating HIV incidence by using data from a virological surveillance of new HIV diagnoses

**Ahmadou Alioum**, INSERM U897-Univ Victor Segalen Bordeaux 2; Cecile Sommen, Observatoire Regional de Santé d'Ile-de-France; Daniel Commenges, INSERM U897-Univ Victor Segalen Bordeaux 2

Space Time Surveillance: A critical reevaluation

**Aline Piroutek**, Renato Assunção, Tháis Paiva, Univ Federal de Minas Gerais

Surveillance to detect emerging space-time clusters

**Thais Correa**, Univ Federal de Ouro Preto; Renato Asunção, Univ Federal de Minas Gerais

**14:15 CONTRIBUTED ORAL 14: Survival Data V**

*Chair:* Hélène Jacqmin-Gadda (Universite Victor Segalen Bordeaux II, France)

Nonparametric and Semiparametric Analysis of Current Status Data Subject to Outcome Misclassification

**Victor Sal y Rosas**, James Hughes, Univ of Washington

The Log-Beta Generalized Half-Normal Regression Model

**Rodrigo Pescim**, Edwin Ortega, ESALQ/USP; Gauss Cordeiro, UFRPE/PE; Clarice Demétrio, ESALQ/USP

Bivariate recurrent event data with repeated incomplete observation gaps

**Jinheum Kim**, Univ of Suwon

Inverse probability weighted estimators of survival with censored and truncated data

**Ronald Geskus**, Academic Medical Ctr

Smoothing survival estimates through pseudo observations

**Federico Ambrogi**, Elia Biganzoli, Patrizia Boracchi, Univ degli Studi di Milano

Hybrid Intensity Models with threshold Stress and frailty terms for Univariate Survival Data

**Cynthia Tojeiro**, Francisco Louzada Neto, UFSCar

**14:15 INVITED SESSION 16: Challenges of multiple gene-based analysis in genome wide association studies**

*Chair:* Taesung Park (Korea, Republic of)

Finding gene-environment and gene-gene interactions to form predictive genetic tests from the results of genome-wide association studies

Robert C. Elston (Case Western Reserve University, US)

Design of GWAS and resequencing-based association studies

Mike L. Boehnke (University of Michigan, US)

Scientific Evaluation of the Impact of Interventions Associated with Genetic Risk Factor Information

Barry Davis (University of Texas at Houston, US)

Identifying gene-gene interactions with survival times using generalized multifactor dimensionality reduction method

Seungyeoung Lee (Sejong University, Korea)

**16:00**

COFFEE BREAK

**16:30**

16:30 CLOSING SESSION

To include the presentation of Conference Awards for the Best Student Oral Presentation and the Best Poster Presentation, and an invitation to attend the next IBC in Japan in 2012

**17:30**