

IWSM 2009

July 20-24 Ithaca New York

Program

Sunday, July 19

09:00-17:00 Short course

- **Murray Aitkin** (University of Melbourne) “Bayesian methods for model comparison”

18:30-19:30 Informal gathering at the Chapter House

Monday, July 20

08:00-09:00 Registration

09:00-09:15 Opening remarks

09:15-10:30 Contributed session. **Chair: Brian Marx**

- **Paul Eilers** (Erasmus Medical Centre, Rotterdam), “Deconvolution of spike trains using an L0 penalty”
- **Giles Hooker** (Cornell University), “Paradoxical Results in Multidimensional Item Response Theory”
- **Ardo van den Hout** (Cambridge University) and Fiona Matthews, “Investigating smoking behaviour as a risk factor for stroke-free life expectancy”

10:30-11:00 Coffee break

11:00-12:00 Invited talk. **Chair: Jim Booth**

- **Brian Caffo** (Johns-Hopkins) “Statistical methods for evaluating connectivity in the human brain”

12:00-12:15 Statistical Modeling Society AGM

12:15-13:45 Lunch: Carrier Ballroom, Statler Hotel

13:45-15:00 Contributed session. **Chair: Giles Hooker**

- **Bret Hanlon** (Cornell University), Anand N. Vidyashankar, Stig L. Petersen, Ray M. Kaplan, and Martin K. Nielsen, “A Bayesian Approach for Evaluating Drug Efficacy using Fecal Egg Count”
- Gerhard Neubauer and **Gordana Djuraš** (Institute of Applied Statistics, Graz), “A beta-Poisson model for underreporting”
- **Kimberly Sellers** (Georgetown University) and Galit Shmueli, “A regression model for count data with observation-level dispersion”

15:00-15:30 Coffee break

15:30-16:45 Contributed session. **Chair: Anand Vidyashankar**

- **Rosalba Radice** (University of Bath) and Giampiero Marra, “Instrumental variable estimation for generalized additive models”
- **Angela Noufaily** (The Open University) and Chris Jones, “On a family of distributions in the context of quantile regression”
- Roberto Colombi and **Sabrina Giordano** (Università della Calabria), “Multi-edge graphs for multivariate Markov chains”

18:00-19:30 Welcome reception – Willard-Straight Hall

Tuesday, July 21

09:00-10:40 Contributed session. **Chair: Jutta Gampe**

- **Nirian Martín** (Universidad Complutense de Madrid) and Leandro Pardo, “Fitting DNA sequences through loglinear modeling with linear constraints”
- **Tristan Mary-Huard** (AgroParisTech), Émilie Lebarbier and Stéphane Robin, “A clustering method for ordered variables to detect up-correlated genomic regions”
- **Ralph Rippe** (Leiden University), Paul Eilers and Jacqueline Meulman, “Improved SNP genotyping using model-based calibration”
- Haim Bar and **Elizabeth Schifano** (Cornell University), “Bayesian approaches to random effects models in microarray analysis”

10:40-11:10 Coffee break

11:10-12:10 Invited talk. **Chair: Martin Wells**

- **Rebecca Doerge** (Purdue University), “Statistical challenges in modeling expression quantitative traits and gene networks”

12:10-13:45 Lunch: Hans Bethe House

13:45-15:00 Contributed session. **Chair: John Newell**

- **Giampiero Marra** (University of Bath) and Simon Wood, “Confidence intervals for generalized additive model components”
- Elisa-María Molanes-López and **Emilio Letón** (Universidad Carlos III de Madrid), “Empirical likelihood based approach for the inference of the Youden index and associated threshold”
- **Sabine Schnabel** (Max Plank Institute for Demographic Research, and Biometrics, Wageningen UR) and Paul Eilers, “Non-crossing smooth expectile curves”

15:00-15:30 Coffee break

15:30-16:45 Contributed session. **Chair: Ardo van den Hout**

- **Cibele Russo** (Universidade de São Paulo), Reiko Aoki and Gilberto Paula, “Assessment of variance components in elliptical nonlinear models for correlated data”
- N Jajo and **Kenan Matawie** (University of Western Sydney), “Eigenvalues application in robust outlier detection”

- **Dongyu Lin** (University of Pennsylvania), S. Krishnan and T. Dasu, “Nonparametric detection of outliers in multivariate data streams”

17:00-18:30 Poster session – The Park Atrium. Authors and titles given below.

Wednesday, July 22

09:00-10:40 Contributed session. **Chair: Linda Haines**

- **Betsabe Blas** (Universidade de São Paulo), H. Bolfarine and V. Lachos, “Diagnostic on controlled calibration model with replicates of both variables”
- **Andrew Simpkin** (National University of Ireland), Paul Eilers, Jutta Gampe and John Newell, “An additive penalty approach to derivative estimation of noisy data”
- **Ori Rosen** (University of Texas El Paso), Sally Wood and Robert Kohn, “Modeling time-varying parameters using mixtures”
- **Carlo Camarda** (Max Plank Institute for Demographic Research), Paul Eilers and Jutta Gampe, “Modelling trends in digit preference patterns”

10:40-11:10 Coffee break

11:10-12:10 Invited talk. **Chair: David Ruppert**

- **Göran Kauermann** (University of Bielefeld), “Penalized spline estimation and mixed models – a flourishing statistical partnership”

14:00-20:00 Excursion to Alfred H. Treman State Park

Thursday, July 23

09:00-10:40 Contributed session. **Chair: Herwig Friedl**

- **Adrian Bowman** (University of Glasgow), C. Ferguson, N. Dean and J. Gross, “Mapping brain activity through spatiotemporal smoothing”
- **Deborah Costain** (Lancaster University), “Matched case-control data: a Bayesian partition modelling approach to mapping residual spatial variation in disease risk”
- **Dae-Jin Lee** (Universidad Carlos III de Madrid) and María Durbán, “Nested B-spline bases: an efficient methods for spatiotemporal smoothing”
- **Reza Oskrochi** (Oxford Brookes University), E. Lesaffre, M. Molas and D. Shamley, “A multi-dimensional multivariate random effect model applied to shoulder complexity due to breast cancer”

10:40-11:10 Coffee break

11:10-12:10 Invited talk. **Chair: Paul Eilers**

- **Emmanuel Lesaffre** (Erasmus University and University of Leuven), “Statistical modeling in oral health research”

12:10-13:45 Lunch: Carrier Ballroom, Statler Hotel

13:45-15:00 Contributed session. **Chair: John Hinde**

- **Ioannis Kosmidis** (University of Warwick), “The iterative adjustment of the responses for the reduction of bias in binary regression models”
- **Linda Haines** (University of Cape Town) and Kerry Leask, “Exponentially weighted Poisson models”
- **Gillian Heller** (Macquarie University), Mikis Stasinopoulos, Robert Rigby and Floris van Ogtrop, “Randomly stopped sum models: a hydrological application”

15:00-15:30 Coffee break

15:30-16:45 Contributed session. **Chair: Claire Ferguson**

- **David Clement** (Cornell University) and Robert Strawderman, “Conditional GEE for recurrent event data”
- **Hyo-II Park** (Chong-ju University) and Seung-Man Hong, “A test procedure based on the additive hazards model for survival data”
- **Pere Puig** (Universitat Autònoma de Barcelona), N. Adell, A. Rojas-Olivares, G. Caja, S. Carne and A. Salama, “Statistical models for retinal image matching”

18:30-21:30 Conference Dinner – Willard-Straight Hall

Friday, July 24

09:00-10:40 Contributed session. **Chair: Gillian Heller**

- **Sonja Greven** (Johns-Hopkins) and Thomas Kneib, “Marginal and conditional Akaike information criteria in linear mixed models”
- **Snehalata Huzurbazar** (University of Wyoming) and Jarrett Barber, “Bayesian modeling of grain size distributions”
- **Martin T. Wells** (Cornell University), “On the analysis of covariance in designed experiments”
- **Anand Vidyashankar** (Cornell University), “Bayesian Ancestral Inference for Branching Processes using Sequential Monte Carlo and Applications to Polymerase Chain Reactions”

10:40-11:10 Coffee break

11:10-12:10 Invited talk. Chair: **Göran Kauermann**

- **David Ruppert** (Cornell), “Statistics for financial engineering: some examples”

12:10-13:45 Lunch: Carrier Ballroom, Statler Hotel

Poster Session Details

- **Mercedes Andrade-Bejarano** (Universidad del Valle, Colombia) “Null likelihood ratio test distribution for the comparison between mixed models with independent errors and mixed models with spatial or temporal correlated errors”
- **Raquel Caballero-Aguila** (Universidad de Jaén, Spain) and A. Hermoso-Carazo, “Least-squares quadratic estimation in uncertain observation systems with different uncertainty probabilities”

- **Dalia Chakrabarty** (University of Nottingham, UK), “CHASSIS - Inverse Modelling of Relaxed Dynamical Systems”
- **James Ciera** (Universit di Padova, Italy) “Fast Bayesian functional data analysis: application to basal body temperature data”
- **Caitlin Cunningham** (Cornell, USA), “A Bayesian approach to analysis of covariance in repeated measures experiments”
- Gerhard Neubauer, **Michaela Dvorzak** and Helga Wagner (Joanneum Research, Austria), “Bayesian estimation of a beta-Poisson model”
- **Theodoros Economou** (University of Exeter, UK), T.C. Bailey and R. Vitolo, “A latent structure model for high river flows”
- **Lizandra Fabio** (Universidade de São Paulo) and Gilberto Paula, “A generalized random intercept log-gamma-Poisson model”
- Eliud Silva, **Victor Guerrero** (Instituto Tecnológico Autónomo de México) and Daniel Peña, “Smoothing two-dimensional mortality tables with a given percentage of smoothness”
- **Miriam Hodge** (University of Canterbury, NZ), Jennifer Brown and Marco Reale, “Improving the Calculation of Observation Rate Bias in Automated Telemetry Systems”
- **Arnost Komarek** (Charles University, Czech Republic), Bettina Hansen, Emmanuel Lesaffre, and Harry Janssen, “Prediction of binary response using multivariate longitudinal profiles: Study on chronic hepatitis B patients”
- **Elizabeth Martinez-Gomez** (Universidad Nacional Autónoma de México), “A statistical model for the relation between exoplanets and their host stars”
- **Chanchal Pramanik** (Acharya N.G. Ranga Agricultural University, India), “Computation of Agriculture”
- **Bruce Stanley** (DuPont Crop Genetics Research and Development), Zaiqi Pan and David W. Onstad, “Modeling lepidopteran ecological population genetics tracking alleles for up to four genes in the agroecosystem”
- M.A. Turkman and **K. Turkman** (CEAUL-FCUL, Portugal), “Hierarchical space-time models for fire ignition and percentage of land burned by wildfires”
- **Cristian Villegas** (Universidade de São Paulo), Gilberto Paula and Victor Leiva, “Birnbaum-Saunders random intercept models with censored data”