International Conference on
New Trends in Computational Statistics with
Biomedical Applications

PROGRAM

August 30 – September 1, 2001
Osaka University Convention Center
OSAKA, JAPAN

Key-note Lectures

Key-note Lecture 1  August 30 (Thu) 13:15–14:15
Sandra Close Kirkwood (Eli Lilly and Company, USA)
The role of statistics in pharmacogenomics

Key-note Lecture 2  August 30 (Thu) 14:15–15:15
Wing Kam Fung (University of Hong Kong)
Statistical analysis of forensic DNA: computational problems solved and to be solved

Key-note Lecture 3  September 1 (Sat) 11:30–12:30
Byron Wm. Brown, Jr.* and Jerry Halpern (Stanford University, USA)
Sample sizes of clinical trials: for science and decision making

Invited Papers

Invited Session 1: Clinical and Medical Evaluation Processes  August 30 (Thu) 15:30–17:00
Joyce C. Niland (City of Hope National Medical Center, USA)
An internet-based data system for outcomes research

Jason Jones, Doug Stahl, Michael Nichol and Stanley P. Azen* (VNUS Information Services, University of Southern California and City of Hope National Medical Center, USA)
Enabling clinically based knowledge discovery in pharmacy claims data: An application in bioinformatics

Tatsuya Isomura*, Toshimitsu Hamasaki (Pfizer Pharmaceuticals Co., Ltd., Japan) and Masashi Goto (Osaka University, Japan)
Statistical issues in the drug evaluation process: some issues in applying the ICH guidelines

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Invited Session 2: Semiparametric Net Based Methods  
August 31 (Fri) 9:30–11:00

Hua Liang* (Harvard University, USA) and Wolfgang Härdle (Humboldt-Universität zu Berlin, Germany)
Partial linear models with heteroscedastic variances

Remy Slama* (Le Klemin-Bicêtre CEDEX, France / Humboldt-Universität zu Berlin, Germany), Axel Werwatz (Humboldt-Universität zu Berlin), Odile Boutou (Le Klemin-Bicêtre CEDEX), Béatrice Ducot (Le Klemin-Bicêtre CEDEX), Alfred Spira (Le Klemin-Bicêtre CEDEX) and Wolfgang Härdle (Humboldt-Universität zu Berlin)
Does male age have an influence on the risk of spontaneous abortion? An approach combining semiparametric and parametric regression

Ikunori Kobayashi (Tokushima Bunri University, Japan), Takeshi Fujiwara (Institute of Statistical Mathematics, Japan), Yoshikazu Yamamoto (Tokushima Bunri University, Japan) and Junji Nakano* (Institute of Statistical Mathematics, Japan)
Extendibilities of a Java based statistical system

Invited Session 3: Computational Issues and Visualization in Clinical Data Analysis  
August 31 (Fri) 11:10–12:40

Daniel B. Carr (George Mason University, USA)
A sampling of graphical templates for human mortality studies and gene expression data

KyungMann Kim* (University of Wisconsin, USA) and Anastasios A. Tsiatis (North Carolina State University, USA)
Computational issues in information-based group sequential clinical trials

Walter Liggett (National Institute of Standards and Technology, USA)
Nonparametric and semiparametric models in comparison of observations of a particle-size distribution

Invited Session 4: Longitudinal Data Analysis  
August 31 (Fri) 14:00–15:30

Yi Li*, Louise Ryan, Scarlett Bellamy (Harvard University, USA) and Glen Satten (CDC, USA)
Inference on clustered survival data using imputed frailties
(Presentation title: A new approach for clustered censored data)

Andy H. Lee* (Curtin University of Technology, Australia) and Kelvin K. W. Yau (City University of Hong Kong)
Zero-augmented Gamma mixed modeling to analyse longitudinal data with many zeros

Bo Fu*, Wing Kam Fung (University of Hong Kong) and Xuming He (University of Illinois, USA)
Robust analysis of longitudinal data
Invited Session 5: Analysis of Symbolic Data  August 31 (Fri) 15:40–17:10

Manabu Ichino (Tokyo Denki University, Japan)
Neighbourhood graphs in classification problems for symbolic data

Hans-Hermann Bock (Technical University of Aachen, Germany)
Clustering algorithms and Kohonen maps for symbolic data

Paula Brito (University of Porto, Portugal)
Hierarchical and pyramidal clustering for symbolic data

Contributed Papers

Contributed Session 1: Computer-intensive Methods 1  August 30 (Thu) 15:30–17:00

Hidetoshi Shimodaira (Institute of Statistical Mathematics, Japan)
Assessing the uncertainty of evolutionary tree selection by the multiscale bootstrap method

Michele La Rocca (Universitdegli Studi di Salerno, Italy)
Bootstrap calibration and empirical likelihood in the logistic regression model

Takashi Koshimizu* (Bayer Yakuhin, Ltd., Japan) and Masaaki Tsujitani (Osaka Electro-Communication University, Japan)
Bootstrapping neural discriminant models

Masaya Iizuka (Okayama University, Japan), Yuichi Mori* (Okayama University of Science, Japan), Tomoyuki Tarumi and Yutaka Tanaka (Okayama University, Japan)
Computer intensive trials to determine the number of variables in PCA

Contributed Session 2: Biomedical Information and Statistical Methods  August 31 (Fri) 9:30–11:00

Igor E. Timchenko* and Ekaterina M. Igumnova (Marine Hydrophysical Institute, Sevastopol, Ukraine)
Adaptive balance of causes as a new method for complex systems modeling

Ekaterina M. Igumnova* and Igor E. Timchenko (Marine Hydrophysical Institute, Sevastopol, Ukraine)
Biomedical information systems based on ABC technology of data processing

Takashi Namatame* (Science University of Tokyo, Japan) and Yumi Asahi (St.Paul’s "Rikkyo" University, Japan)
Stochastic process model for medical decision making

Michael G. Schimek (Karl-Franzens-University of Graz, Austria)
RIP-GAMs and classification trees in quantitative MRI
Contributed Session 3: Functional Data Analysis  August 31 (Fri) 11:10–12:40

Wang Pe-Cheng* and Lin D.F. (National Central University, Taiwan)
To analyze dynamic data from experiments

Yoshihiro Yamanishi* and Yutaka Tanaka (Okayama University, Japan)
Geographically weighted functional multiple regression analysis: a numerical investigation

Shuichi Tokushige*, Koichi Indda and Hiroshi Yadohisa (Kagoshima University, Japan)
Dissimilarity and related methods for functional data

Contributed Session 4: Computer-intensive Methods 2  August 31 (Fri) 14:00–15:30

Yoshimichi Ochi (Oita University, Japan)
The performance of the computer intensive methods for over-dispersed categorical data

Satyabrata Pal* (Bidhan Chandra Agricultural University, India) and Shyamsundar Sahoo (Indian Statistical Institute, India)
A computer intensive technique to identify the peaks from a mixture population using non-parametric methods

Hiroyuki Minami*, Yuriko Komiya and Masahiro Mizuta (Hokkaido University, Japan)
Evaluation of execution time on data analysis with parallel virtual machine

Tsukio Morita* (Mimasaka Women’s College, Japan) and Yutaka Tanaka (Okayama University, Japan)
Sensitivity analysis in latent class analysis

Contributed Session 5: Categorical Data Analysis, Multidimensional Scaling, Classification  August 31 (Fri) 15:40–17:10

Masahiro Mizuta (Hokkaido University, Japan)
Multidimensional scaling for continuous dissimilarity functions

Edgar Acuna* and Alex Rojas (University of Puerto Rico at Mayaguez, Puerto Rico)
Bagging classifiers based on kernel density estimators

Karl-Ernst Biebler*, Bernd Jager and Michael Wodny and Elke Below (University of Greifswald, Germany)
Mixed data type and topological classification

Tomoya Tokairin* and Yoshiharu Sato (Hokkaido University, Japan)
The method to decide the dimension of data by MDL criterion
Contributed Session 6: Statistical Methods and Applications  September 1 (Sat) 9:30–11:10

Norisuke Kawai* (Yamanouchi Pharmaceutical Co., Ltd, Japan) and Masashi Goto (Osaka University, Japan)
 Measures of variation explained by binary regression

Osamu Sugano (Tsuyama Commercial High School, Japan)
 Rank association measure for cross classifications

Toshio Sakata* (Kyushu Institute of Design, Japan) and Ryuichi Sawae (Okayama University of Science, Japan)
 A study of the sequential conditional test for contingency tables

Takahiko Hara (Oita University, Japan)
 Invariant confidence sequences for slippage of normal means

Shafeeqah A. Al-Awadhi* and M.E. Ghitany (Kuwait University, Kuwait)
 Statistical properties of Poisson-Lomax distribution and its application to repeated accidents data

Contributed Session 7: Modeling and Analysis of Biomedical Characteristics  September 1 (Sat) 9:30–11:10

Henry S. H. Hsu*, Rolf E. Taffs, Anna Ivshina (United States Food and Drug Administration, USA), Kyoji Hioki, Tatsuji Nomura (Central Institute for Experimental Animals, Japan) and Peter A. Lachenbruch (United States Food and Drug Administration, USA)
 An example of analyzing ordinal categories of response using continuation-ratio models

Mitsumasa Baba* (Pharmacia K. K., Japan), Masaki Fujisawa (Grelan Pharmaceutical Co., Ltd.), Wataru Sakamoto and Masashi Goto (Osaka University, Japan)
 Statistical evaluation of umbrella dose-response relationships

Takashi Daimon* and Masashi Goto (Osaka University, Japan)
 Power-transformation mixed effect models with their applications to pharmacokinetics

Freedom Gumedze* and June Juritz (University of Cape Town, South Africa)
 Hierarchical generalised linear models for CD4 lymphocyte counts

Thomas W. Yee (University of Auckland, New Zealand)
 VGAM family functions for categorical and genetic data