

ISM Symposium on Environmental Statistics 2016



【Date】 January 15 (Friday), 2016

【Venue】 The Institute of Statistical Mathematics (10-3 Midori-cho, Tachikawa, Tokyo 190-8562, Japan), Auditorium (Second Floor)

【Organizers】 K. Kanefuji(ISM), A. Welsh(ANU), K. Shimatani(ISM),
K. Shimizu(ISM)

【Host Organization】 The Institute of Statistical Mathematics

【Joint Hosting】

Data Centric Science Research Commons, Research Organization of Information
and Systems

NPO Japan Institute of Environmental Statistics



Research Organization of Information and Systems

The Institute of Statistical Mathematics

【Program】

Opening Address 10:10-10:20 **Tomovuki Higuchi**, Director-General, ISM

Session 1 (Chair: **Yoshinori Kawasaki**, ISM) 10:20-11:40

10:20-11:00 Fitting misspecified linear mixed models

Alan Welsh, Mathematical Sciences Institute, ANU College of Physical & Mathematical Sciences, The Australian National University

11:00-11:40 A guided tour of the estimation and testing procedures involved in CRAD (Co-Regionalization Analysis with a Drift), with examples of applications in the environmental sciences

Pierre Dutilleul, Faculty of Agricultural and Environmental Sciences, Department of Plant Science, McGill University

Lunch 11:40-13:00

Session 2 (Chair: **Kenichi Shimatani**, ISM) 13:00-14:20

13:00-13:40 Sampling under constraints: some environmental applications

Louis-Paul Rivest, Département de Mathématiques et de Statistique, Faculté des Sciences et de Génie, Université Laval

13:40-14:20 Modelling the Relationship between Leaf Chemistry and Koala Population Density

Robert Clark, National Institute of Applied Statistical Research Australia, University of Wollongong

Break 14:20-14:35

Session 3 (Chair: **Shuangzhe Liu**, University of Canberra) 14:35-15:55

14:35-15:15 Hierarchical models do not need to be Bayesian

Brian Dennis, Department of Fish & Wildlife Sciences, University of Idaho

15:15-15:55 Weighted likelihood estimators for point processes and application in detecting spatial variations of seismicity clustering characteristics

Jiancang Zhuang, Department of Statistical Modeling, The Institute of Statistical Mathematics

Break 15:55-16:10

Session 4 (Chair: **Suhei Mano**, ISM) 16:10-17:30

16:10-16:50 A family of distributions for bivariate circular data

Shogo Kato, Department of Mathematical Analysis and Statistical Inference, The Institute of Statistical Mathematics

16:50-17:30 Distributions on spheres defined by conformal transformation

Tomonari Sei, School of Information Science and Technology, The University of Tokyo

Closing Address 17:30-17:35 **Alan Welsh**, The Australian National University