科研費シンポジウム

「統計科学と関連分野における諸問題に関する理論と方法論の革新的展開」

（Innovative developments in theory and methodology regarding various issues in statistical science and related fields）

日時：2023 年 9 月 29 日（金）〜10 月 1 日（日）

(Date: Friday, 29, September – Sunday, 1, October, 2023)

場所：新潟大学駅南キャンパスときめいと 講義室 A,B

(Place: Niigata University, Station South Campus Tokimate, Lecture Room A, B)

（TEL: 025-248-8141）

https://www.niigata-u.ac.jp/university/facility/tokimate/

map

Program

Friday, 29, September

Reception 13:00-13:15

Opening 13:15-13:20 **Junichi HIRUKAWA** (Niigata University)

Afternoon Session I (in Japanese) 13:20-16:00
Chair **Shimatani, K. Ichiro** (The Institute of Statistical Mathematics)
1. 13:20-14:00 **江頭 健斗**, 矢田 和善, 青嶋 誠
東京理科大学創域理工学部, 筑波大学数理物質系, 筑波大学数理物質系
Hierarchical clustering and its asymptotic behaviors in multiclass HDLSS settings
2. 14:00-14:40 **齊藤 実祥**, 寒河江 雅彦
金沢大学 人間社会研究域 経済学経営学系
多次元 Tensor Product 型密度関数の推定とその漸近的性質
3. 14:40-15:20 **種市 信裕**, 関谷 祐里
元北海道教育大札幌校, 北海道教育大学釧路校
2nd order correction term を最小化する分割表の Φ - ダイバージェンス独立性検定統計量
4. 15:20-16:00 **柿沢 佳秀**
北海道大学大学院経済学研究院
境界バイアスを回避する非対称カーネル法の様々な適用について

Coffee Break 16:00-16:30

Afternoon Session II (in Japanese & English) 16:30-17:50
Chair **Yuichi Goto** (Kyushu University)
5. 16:30-17:10 曾 小強 (Xiaoqiang Zeng), **柿沢 佳秀 (Yoshihide Kakizawa)**
Hokkaido University
Some estimators in the ADCINAR(1) process
6. 17:10-17:50 **竹内 努 (Tsutomu T. TAKEUCHI)**
名古屋大学素粒子宇宙物理学専攻 (Division of Particle and Astrophysical Science, Nagoya University, Japan)
多様体学習による銀河進化の定量化と定式化 (Quantification and Formulation of Galaxy Evolution by Manifold Learning)

Saturday, 30, September

Morning Session (in Japanese) 9:30-10:50
Chair **Yan Liu** (Waseda University)
7. 9:30-10:10 永井 勇
中京大学 教養教育研究院
GMANOVA モデルにおけるフルランク仮定が不要な罰則無推定法
8. 10:10-10:50 藤森 洸, 佃 康司
信州大学, 九州大学
Two step estimations via the Dantzig selector for models of stochastic processes with high-dimensional parameters

Lunch 10:50-13:20

Afternoon Session I (in English) 13:20-15:20
Chair **Kou Fujimori** (Shinshu University)
9. 13:20-14:00 島谷健一郎 **(Shimatani, K. Ichiro)**
統計数理研究所 (The Institute of Statistical Mathematics)
空間種分布モデルに対する多様性指数の統計数理 (Statistical mathematics of biodiversity indices for spatial species distribution model)
10. 14:00-14:40 張 元宗 **(Chang Yuan-Tsung)**, 篠崎 信雄 (Nobuo Shinozaki)
目白大学 (Mejiro university), 慶應大学 (Keio university)
Simultaneous estimation of Poisson means: recent developments and its applications
11. 14:40-15:20 田中 勝人 **(Katsuto Tanaka)**
Hitotsubashi University (Emeritus Professor)
Extensions of Darling's Formula for the Fredholm Determinant

Coffee Break 15:20-15:50

Afternoon Session II (Guest speakers session) 15:50-17:50

Chair **Junichi Hirukawa** (Niigata University)

12. 15:50-16:30 **Liang-Ching Lin**

National Cheng Kung University

Authors: Liang-Ching Lin (National Cheng Kung Univ.), Hsiang-Lin Chien (National Cheng Kung Univ.), Hao Sung (National Cheng Kung Univ.) and Sangyeol Lee (Seoul National University)

Comprehensive interval-valued time series model with application to the S&P 500 index and PM2.5 level data analysis

13. 16:30-17:10 **Nan-Jung Hsu**

National Tsing Hua University

Authors: Nan-Jung Hsu (National Tsing-Hua Univ), Hsin-Cheng Huang (Institute of Statistical Science, Academia Sinica), Ruey S. Tsay (University of Chicago) and Tzu-Chieh Kao (National Tsing-Hua Univ.)

Matrix Autoregressive Spatio-Temporal Models

14. 17:10-17:50 **Hsin-Cheng Huang**

Institute of Statistical Science, Academia Sinica

Authors: Chien-Chung Wang (Colorado State Univ.), Chih-Hao Chang (National Chengchi Univ.) and Hsin-Cheng Huang (Institute of Statistical Science, Academia Sinica)

Stable p-value Assignment in High-Dimensional Regression via Data Splitting

Conference Dinner 18:30-21:30

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Sunday, 1, October

Morning Session (in English) 9:30-12:10
Chair **Katsuto Tanaka** (Hitotsubashi University)
15. 9:30-10:10 塩濱 敬之 **(Takayuki Shiohama)**
南山大学理工学部 (Department of Data Science, Nanzan University)
Modeling Joint Cylindrical Distributions and Related Markov Processes
16. 10:10-10:50 後藤 佑一 **(Yuichi Goto)**
九州大学 (Kyushu University)
Authors: Yuichi Goto (Kyushu Univ.), Xuze Zhang (Maryland Univ.), Benjamin Kedem (Maryland Univ.) and Shuo Chen (Maryland Univ.)
Test for the existence of the residual spectrum with application to brain functional connectivity detection
17. 10:50-11:30 **Yan Liu**
Faculty of Science and Engineering, Waseda University
Prediction-based statistical inference for multiple time series
18. 11:30-12:10 **Junichi Hirukawa**, Kou Fujimori
Niigata University, Shinshu University
Weak convergence of the partial sum of $I(d)$ process to a fractional Brownian motion in finite interval representation

Closing 12:10-12:15 **Junichi HIRUKAWA** (Niigata University)