

Date	JST	CST					
2/21	14:00	13:00	[Tutorial] Joe Suzuki (Osaka University, Japan) Solve 100 Problems of Math and R/Python for Statistical Learning Chair: Koji Yamamoto (Yokohama City University, Japan)				
	17:00	16:00	IASC-ARS Board Meeting				
2/22	9:00	8:00	Conference Registration Get together				
	11:00	10:00	Opening Ceremony				
	11:15	10:15	[Keynote Talk 1] Kengo Kamatani (Institute of Statistical Mathematics, Japan) Scaling limit of Markov chain/process Monte Carlo methods Chair: Hidetoshi Murakami (Tokyo University of Science, Japan)				
	12:00	11:00	Lunch				
	13:30	12:30	Special IS Recent Advances in Probability Models for Ranking Data	IS17 Innovation methodology development of causal mediation analysis for biomedical data		PS1 e-Poster Core Session (Part 1)	
	15:10	14:10	Coffee Break				
	15:40	14:40	IS01 FinTech	IS12 Advances in biomedical data analysis	IS11 Efficient computation on the distribution theory	CS01 Missing Values / EM Algorithm	CS02 Multivariate Analysis
	17:20	16:20	Welcome Reception				
2/23	9:30	8:30	Conference Registration				
	9:45	8:45	[Keynote Talk 2] Ryan Tibshirani (Carnegie Mellon University, USA) Divided Differences, Falling Factorials, and Discrete Splines: Another Look at Trend Filtering and Related Problems Chair: Wataru Sakamoto (Okayama University, Japan)				
	10:30	9:30	Coffee Break				
	11:00	10:00	IS14 Advances in Bayesian Statistical Methods	IS04 Recent Advances in Big Data Learning with Network Structures	IS08 Statistical Analysis on the Web of Science	CS03 Distribution Theory	CS04 Lasso
	12:40	11:40	Lunch				
	14:00	13:00	IS07 Bayesian Methods for Modern Statistical Analysis	IS15 Recent advances in Computational Statistics and Related Fields I		PS2 e-Poster Core Session (Part 2)	
	15:40	14:40	Coffee Break				
16:10	15:10	IS13 Advances in complex data analysis	IS02 Big Data and Analytics in Covid-19	IS10 Recent developments in cognitive diagnostic models	CS05 Statistical Process Control / Monte Carlo Simulation	CS06 Regression	
17:50	16:50						
2/24	9:30	8:30	Conference Registration				
	9:45	8:45	[Keynote Talk 3] Ray-Bing Chen (National Cheng Kung University, Taiwan) Tree-based Gaussian Process for Computer Experiments with Many-Category Qualitative Factors Chair: Yuichi Mori (Okayama University of Science, Japan)				
	10:30	9:30	Coffee Break				
	11:00	10:00	IS09 Methods and applications in deep learning	IS16 Recent advances in Computational Statistics and Related Fields II	IS18 Recent Advances in Mixture Modelling	CS07 Time Series / Stochastic Process	CS08 Statistical Software / Qualitative Data
	12:40	11:40	Lunch				
	14:00	13:00	IS05 Statistical methods for covariances and other dependence structures	IS06 Design and Analysis of Modern Experiments and Computer Experiments	IS03 Digital Assets	CS09 Accelerate life test	CS10 Application
	15:40	14:40					
15:50	14:50	IASC-ARS General Assembly / Closing Ceremony					
16:20	15:20						

IS: Invited Session
 CS: Contributed Talk Session
 PS: Contributed e-Poster Session

Session ID	Title	Authors
Special IS	Recent Advances in Probability Models for Ranking Data	Organizer and Chair: Philip L.H. Yu (Education University of Hong Kong, Hong Kong)
SIS-1	Effective signal reconstruction from multiple ranked lists via convex optimization	Michael G. Schimek(Medical University of Graz, Austria), Luca Vitale(Università degli Studi di Salerno, Italy), Bastian Pfeifer(Medical University of Graz, Austria), Michele La Rocca(Università degli Studi di Salerno, Italy)
SIS-2	Efficient estimation of finite mixtures of Mallows models with the Spearman distance	Marta Crispino(Bank of Italy), Cristina Mollica(Sapienza University of Rome), Valerio Astuti(Bank of Italy), Luca Tardella(Sapienza University of Rome)
SIS-3	Ranking completion problem	Zhuang Yipeng(The Education University of Hong Kong, Hong Kong)
SIS-4	Modeling Ranking Data and Social Network	Jiaqi Gu(University of Hong Kong), Philip Yu(Education University of Hong Kong)
IS17	Innovation methodology development of causal mediation analysis for biomedical data	Organizer and Chair: Sheng-Hsuan Lin (Institute of Statistics, National Yang-Ming Chiao-Tung University, Taiwan)
IS17-1	Nonparametric path-specific effects on a survival outcome through time-to-event mediators	Yen-Tsung Huang, Ju-Sheng Hung(Academia Sinica, Taiwan)
IS17-2	Unified semicompeting risks analysis of hepatitis natural history through mediation modeling	Jih-Chang Yu, Yen-Tsung Huang(Institute of Statistical Science, Academia Sinica, Taipei, Taiwan)
IS17-3	Causal Mediation Analysis for Panel Data -- mechanism investigation for COVID-19 pandemic induced depression	Pei-Hsuan HsiaSheng-Hsuan Lin, Sheng-Hsuan Lin(Institute of Statistics, National Yang Ming Chiao Tung University, Hsin-Chu, Taiwan. 1001 University Road, Hsinchu, Taiwan 300)
IS17-4	Robust inference on effects attributable to mediators: A controlled-direct-effect-based approach for causal effect decomposition with multiple mediators	An-Shun Tai(National Yang Ming Chiao Tung University, Taiwan)
PS1	e-Poster Core Session (Part 1)	
PS1-01	Quantum computation, quantum algorithms and implications on Data Science	Jeremy Garcia, Nathan Kim, David Han(The University of Texas at San Antonio, USA)
PS1-02	Statistical perspectives in teaching application-oriented Deep Learning	Nathan Kim, David Han(The University of Texas at San Antonio, USA)
PS1-03	The optimal condition-based maintenance policy under the gamma degradation process	David Han(The University of Texas at San Antonio, USA)
PS1-04	A covariate selection method for propensity score model based on interquantile estimation of outcome	Takehiro Shoji, Jun Tsuchida, Hiroshi Yadohisa(Doshisha University, Japan)
PS1-05	Bayesian tail risk forecasting of the realized volatility CAViaR models	Tiffany H. Y. Hsu, Cathy W. S. Chen(Department of Statistics, Feng Chia University, Taiwan)
PS1-06	Bayesian Estimation of the Quantile Fama-French Three-Factor Model with Heteroscedasticity and Skew Student t Errors	Y. K. Wang, Cathy W. S. Chen(Department of Statistics, Feng Chia University, Taichung, Taiwan)
PS1-07	Evaluation of statistical methods for recurrent time-to-event data	Naoki Uemura(Yokohama City University), Hideto Yasuda(Jichi Medical University), Takayuki Abe(Yokohama City University)
PS1-08	Estimation of treatment effects for multivariate longitudinal data	Shintaro Yuki, Hiroshi Yadohisa(Doshisha University, Japan)
PS1-09	A cluster Kriging method considering additional information	Toshiki Sakai, Jun Tsuchida, Hiroshi Yadihisa(Department of Culture and Information Science, Doshisha University)
PS1-10	Rapid Design of Metamaterials via Multi-Target Bayesian Optimization	Yang Yang(Center for Statistical Science, Tsinghua University, China), Chunlin Ji(Kuang-Chi Institute of Advanced Technology, Shenzhen, China), Ke Deng(Center for Statistical Science and Department of Industrial Engineering, Tsinghua University, China)
PS1-11	Online Quantile Linear Discriminant Analysis	Soshi Kawarai, Hiroshi Yadohisa(Doshisha University, Japan)

Session ID	Title	Authors
IS01	FinTech	Organizer and Chair: Ying Chen (National University of Singapore)
IS01-1	Bayesian inference of temporal trends in daily financial news	Mike So(The Hong Kong University of Science and Technology, Hong Kong)
IS01-2	Optimal Execution with Hidden Orders under Self-Exciting Dynamics	Ying Chen(National University of Singapore, Singapore), Zexin Wang(Imperial College London, the UK), Ge Zhang, Chao Zhou(National University of Singapore, Singapore)
IS01-3	Shapley-Lorenz trustworthy AI	Paolo Giudici, Emanuela Raffinetti(University of Pavia, Italy)
IS01-4	Non Fungible Tokens and VizTech	Wolfgang Karl Haerdle (Humboldt Universität zu Berlin)
IS12	Advances in biomedical data analysis	Organizers: Michio Yamamoto (Okayama University, Japan), Yoshikazu Terada (Osaka University, Japan) Chair: Yoshikazu Terada (Osaka University, Japan)
IS12-1	One-step approximation of covariate balancing propensity score using generalized linear models	Tomohiro Shinozaki(Tokyo University of Science)
IS12-2	Direct and indirect effect with multiple longitudinal mediators	Masataka Taguri(Yokohama City University, Japan), Yasuyuki Okuda(Daiichi Sankyo Co., Ltd., Japan)
IS12-3	Odds-based predictive improvement index for binary regression models	Kenichi Hayashi(Keio University, Japan), Shinto Eguchi(The Institution of Statistical Mathematics)
IS12-4	Estimation of the causal effects of stochastic interventions based on sufficient dimension reduction	Michio Yamamoto(Okayama University / RIKEN AIP, Japan)
IS11	Efficient computation on the distribution theory	Organizers: Hiroki Hashiguchi, Hidetoshi Murakami (Tokyo University of Science) Chair: Hiroki Hashiguchi (Tokyo University of Science)
IS11-1	Approximation to probability density functions in sampling distributions based on Fourier cosine series	Shigekazu Nakagawa(Okayama University of Science, Japan), Hiroki Hashiguchi(Tokyo University of Science, Japan), Yoko Ono(Yokohama City University, Japan)
IS11-2	On the Distribution of the Sum of Gamma Mixture Random Variables	Masato Kitani(Graduate School of Science, Tokyo University of Science, Japan), Hidetoshi Murakami, Hiroki Hashiguchi(Tokyo University of Science, Japan)
IS11-3	Algorithm for Product of Zonal Polynomials and Its Application in Statistics	Koki Shimizu, Hiroki Hashiguchi(Tokyo University of Science, Japan)
IS11-4	The Moment Generating Function of Two-Sample Linear Rank Tests in The Presence of Ties	Hikaru Yamaguchi(Graduate School of Science, Tokyo University of Science, Japan), Hidetoshi Murakami(Tokyo University of Science, Japan)
IS11-5	Acceleration of Bootstrap Computation for Incomplete Data	Masahiro Kuroda(Okayama University of Science)
CS01	Missing Values / EM Algorithm	Chair:
CS01-1	Multiple imputation with verifiable identification condition for nonignorable missing data	Kenji Beppu, Kosuke Morikawa(Osaka University, Japan), Jongho Im(Yonsei University, Korea)
CS01-2	Tempered Expectation-Maximization algorithm for discrete latent variable models	Luca Brusa(University of Milano-Bicocca, Italy), Francesco Bartolucci(University of Perugia, Italy), Fulvia Pennoni(University of Milano-Bicocca, Italy)
CS01-3	Estimating Finite Mixtures of Disc Distribution and Its Applications to Image Recognition	Shunsuke Maki(Nanzan University, JAPAN), Takayuki Shiohama(Nanzan University, JAPAN)
CS01-4	Maximum likelihood estimation of hidden Markov models for continuous longitudinal data with missing responses and dropout	Fulvia Pennoni(Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Italy), Francesco Bartolucci, Silvia Pandofi(Department of Economics, University of Perugia, Italy)
CS02	Multivariate Analysis	Chair:
CS02-1	A Technical Note on Model Ontology via Multidimensional Scaling	Keishi Nomura, Kensuke Okada(The University of Tokyo, Japan)
CS02-2	Spherical Random Projection	Seungwoo Kang, Hee-Seok Oh(Seoul National University, Korea)
CS02-3	Soft clustering of multidimensional time series	Ángel López-Oriona, José. A. Vilar, Pierpaolo D'Urso(Universidade da Coruña)
CS02-4	Application of cross-data matrix methodology to embedded vector of deep-learning models with estimation of spiked model parameter	Yuuki Tachioka(Denso IT Laboratory)
CS02-5	A Method for Extracting Nonlinear Structure based on Nonlinear Measures of Dependence	Shouma Ishimoto(Graduate School of Information Science and Technology, Hokkaido University), Hiroyuki Minami, Masahiro Mizuta(Information Initiative Center, Hokkaido University)

Session ID	Title	Authors
IS14	Advances in Bayesian Statistical Methods	Organizer and Chair: Mike K.P. So (The Hong University of Science and Technology, Hong Kong)
IS14-1	Linkage Vector Autoregressive Model	Manabu Asai(Soka University, Japan), Mike K.P. So(Hong Long University of Science and Technology, Hong Kong)
IS14-2	Dynamic Ordering Learning in Multivariate Forecasting	Bruno P. C. Levy(INSPIRE Institute of Education and Research), Hedibert F. Lopes(Arizona State University)
IS14-3	Dynamic factor, leverage and realized covariances in multivariate stochastic volatility	Yuta Yamauchi(Nagoya University), Yasuhiro Omori(University of Tokyo)
IS04	Recent Advances in Big Data Learning with Network Structures	Organizer and Chair: Zhao Ren (University of Pittsburgh, USA)
IS04-1	Functional causal modeling via Karhunen-Loève expansions	Kuang-Yao Lee(Temple University, USA), Lexin Li(University of California at Berkeley, USA), Bing Li(Pennsylvania State University, USA)
IS04-2	Integrative inference for biological networks	Yuping Zhang(University of Connecticut)
IS04-3	Clustering with Latent Semiparametric Mixture Models	Wen Zhou(Colorado State University, USA)
IS04-4	Simultaneous Inference in Multiple Matrix-Variate Graphs for High-Dimensional Neural Recordings	Zhao Ren(University of Pittsburgh)
IS08	Statistical Analysis on the Web of Science	Organizer: Frederick Kin Hing Phoa (Academia Sinica, Taiwan) Chair: Junji Nakano (Chuo University, Japan)
IS08-1	A Preferential Attachment Model of Growing Hypergraphs	Hohyun Jung(Department of Statistics, Sungshin Women's University, South Korea), Sung-Ho Kim(Department of Mathematical Sciences, KAIST, South Korea), Frederick Kin Hing Phoa(Institute of Statistical Science, Academia Sinica, Taiwan)
IS08-2	How to estimate potential research subjects by LASSO	Hiroka Hamada, Keisuke Honda(Institute of Statistical Mathematics, Japan)
IS08-3	International Comparison of Innovation Strategies in Artificial Intelligence Research: An Analysis of Intrapersonal Diversity Using Bibliographic Databases	Yuji Mizukami(Nihon University, Japan), Junji Nakano(Chuo University, Japan)
IS08-4	A Mixture Model of Truncated Zeta Distributions with Applications to Scientific Collaboration Networks	Hohyun Jung(Sungshin Women's University, South Korea), Frederick Kin Hing Phoa(Academia Sinica, Taiwan)
CS03	Distribution Theory	Chair:
CS03-1	Choice of the Dirichlet parameter for Estimation of Measures in Two-Way Contingency Tables	Tomotaka Momozaki, Koji Cho, Tomoyuki Nakagawa, Sadao Tomizawa(Tokyo University of Science, Japan)
CS03-2	Modified Anderson-Darling statistic and its power comparison	Yuyan Ma, Masato Kitani(Graduate School of Science, Tokyo University of Science, Japan), Hidetoshi Murakami(Tokyo University of Science, Japan)
CS03-3	A test statistic based on normalized transformation for multivariate sample kurtosis	Eri Kurita, Seo Takashi(Tokyo University of Science, Japan), Zofia Hanusz(University of Life Sciences in Lublin, Poland)
CS03-4	Modified Profile Likelihood Estimation in the Lomax Distribution with Censored Data	Maisoun Sewailem(Qatar University, Qatar), Ayman Baklizi(a.baklizi@qu.edu.qa, Qatar)
CS04	Lasso	Chair:
CS04-1	Multivariate Adaptive Regression Splines for Estimating Heterogeneous Treatment Effect	Guanwenqing He, Ke Wan, Toshio Shimokawa(Department of Medical Data-science, Graduate School of Medicine, Wakayama Medical University)
CS04-2	Rule Ensemble Method with Group Lasso for Heterogeneous Treatment Effect Estimation	Ke Wan, Guanwenqing He, Toshio Shimokawa(Department of Medical Data Science, Graduate School of Medicine, Wakayama Medical University, Japan)
CS04-3	Spacing Test for Fused Lasso	Rieko Tasaka, Joe Suzuki(Osaka University, Japan)
CS04-4	Spatially Varying Coefficient Modeling of Numerical and Categorical Predictor Variables in the Generalized Lasso	Septian Rahardianto, Wataru Sakamoto(Okayama University, Japan)

Session ID	Title	Authors
IS07	Bayesian Methods for Modern Statistical Analysis	Organizer and Chair: Cathy W.S. Chen (Department of Statistics, Feng Chia University, Taiwan)
IS07-1	Bayesian Skill-Rating Models for Doubles Players	J.-R. Chang, J.-C. Lin, H.-F. Hua, R. C. Weng(National Chengchi University, Taiwan)
IS07-2	High-frequency realized stochastic volatility model	Toshiaki Watanabe(Hitotsubashi University, Japan), Jouchi Nakajima(Bank of Japan, Japan)
IS07-3	Variational inference for cutting feedback with misspecified models	Xuejun Yu, David Nott(National University of Singapore, Singapore), Michael Stanley Smith(University of Melbourne, Australia)
IS07-4	Bayesian Cumulative Probit Linear Mixed Models for Longitudinal Ordinary Data	Kuo-Jung Lee, Ray-Bing Chen(National Cheng Kung University), Keunbaik Lee(Sungkyunkwan University)
IS15	Recent advances in Computational Statistics and Related Fields I	Organizers: Tso-Jung Yen (Academia Sinica, Taiwan) and Hiroshi Yadohisa (Doshisha University, Japan) Chair: Yen-Tsung Huang (Academia Sinica, Taiwan)
IS15-1	Robust inference of conditional average treatment effects using dimension reduction	Ming-Yueh Huang(Academia Sinica), Shu Yang(North Carolina State University)
IS15-2	Bayesian multinomial model based on quantile regression	Koki Matsuoka(NTT DATA Corporation, Japan), Masaaki Okabe, Jun Tsuchida(Doshisha University, Japan)
IS15-3	Eigen-Adjusted Functional Principal Component Analysis	Ci-Ren Jiang(Academia Sinica), Eardi Lila(U of Washington, Seattle, US), John AD Aston(Cambridge University, UK), Jane-Ling Wang(U of California, Davis, US)
IS15-4	Compressed sensing in scanning tunneling spectroscopy	Yoshinori Nakanishi-Ohno(Doshisha University, Japan)
PS2	e-Poster Core Session (Part 2)	
PS2-01	Causal Mediation Analysis for Difference-in-Difference Design and Panel Data	Pei-Hsuan Hsia, An-Shun Tai, Chu-Lan Micheal Kao(Institute of Statistics, National Yang Ming Chiao Tung University, Hsin-Chu, Taiwan), Yu-Hsuan Lin(Institute of Population Health Sciences, National Health Research Institutes, Miaoli, Taiwan), Sheng-Hsuan Lin(Institute of Statistics, National Yang Ming Chiao Tung University, Hsin-Chu, Taiwan)
PS2-02	CUSUMIN: A Cumulative Sum Interval design for Cancer Phase I dose finding	Tomoyoshi Hatayama(Statistics and Decision Sciences Japan, Janssen Pharmaceutical KK, Japan), Seiichi Yasui(Department of Industrial Administration, Tokyo University of Science, Japan)
PS2-03	On identification and estimation for sufficient cause interaction through quasi-instrumental variable	Pei-Hsuan Hsia, An-Shun Tai, Sheng-Hsuan Lin(National Yang Ming Chiao Tung University, Taiwan)
PS2-04	Confidence interval for F1-scores for binary and multi-class classification	Kanae Takahashi(Hyogo College of Medicine, Japan), Kouji Yamamoto(Yokohama City University, Japan), Aya Kuchiba(Kanagawa University of Human Services, Japan), Tatsuki Koyama(Vanderbilt University Medical Center, USA)
PS2-05	A Study on Estimation of the Human Interest for Place based on the Human Movement Data	Shinnosuke Suzuki, Kosuke Okusa(Yokohama City University, Japan)
PS2-06	Comparison of software packages for network meta-analysis with time-to-event endpoint.	Shintaro Hirano(Yokohama city university, A2 Healthcare corp., Japan), Yosuke Muroi(Yokohama city university, Japan), Michinori Arimitsu(JMDC inc., Japan), Takayuki Abe(Yokohama city university, Japan)
PS2-07	Robust principal component analysis applicable to partially observed functional data	Hyunsung Kim(Chung-Ang University, Korea), Yeonjoo Park(The University of Texas at San Antonio, U.S.A.), Yaeji Lim(Chung-Ang University, Korea)
PS2-08	Embedding method for multiple multivariate data by using class label information	Kenta Sakamoto(Graduate School of Culture and Information Science, Doshisha University, Japan), Hiroshi Yadohisa(Faculty of Culture and Information Science, Doshisha University, Japan)
PS2-09	Partial Least Squares for qualitative data	Chitose NISHIYAMA, Hiroko KATAYAMA(Graduate school of Informatics, Okayama University of Science), Yuichi MORI(Okayama University of Science)
PS2-10	Sample size calculation in Bayesian clinical trials considering simultaneous efficacy and inefficacy for normally distributed outcome with unknown variance	Yosuke Inaba(Biostatistics Section, Chiba University Hospital Clinical Research Center, Japan), Tomoyuki Kakizume(Statistical & Quantitative Sciences, Takeda Pharmaceutical Company Limited, Japan), Masaaki Doi(Department of Biostatistics, Kyoto University School of Public Health, Japan), Yohei Kawasaki(Faculty of Nursing, Japanese Red Cross College of Nursing, Japan)
PS2-11	Wasserstein discriminant analysis for limited labeled data	Mitsuhiro Hashiguchi, Hiroshi Yadohisa(Doshisha University)

Session ID	Title	Authors
IS13	Advances in complex data analysis	Organizers: Yoshikazu Terada (Osaka University, Japan), Michio Yamamoto (Okayama University, Japan) Chair: Michio Yamamoto (Okayama University, Japan)
IS13-1	Ordinal Probit Models for heterogeneous thresholds using anchoring vignette	Mariko Takagishi(Osaka University, Japan), Tomoyuki Sugimoto(Siga University, Japan), Yoshikazu Terada(Osaka University, Japan)
IS13-2	Sparse multivariate regression with missing values and its application to material properties prediction	Kei Hirose(Kyushu University), Keisuke Teramoto(Hiroshima University)
IS13-3	Truncated estimation for varying-coefficient functional linear models and its application to agricultural data	Hidetoshi Matsui(Shiga University, Japan)
IS13-4	Fast Approximation for large-scale clustering	Yoshikazu Terada(Osaka University / RIKEN, Japan), Michio Yamamoto(Okayama University / RIKEN, Japan)
IS02	Big Data and Analytics in Covid-19	Organizer and Chair: Ying Chen (National University of Singapore, Singapore)
IS02-1	Interpretable Kernels	Patrick J.F. Groenen(Erasmus University Rotterdam), Michael Greenacre(Universitat Pompeu Fabra)
IS02-2	What Factors Drive the Satisfaction of Citizens on Governments' Responses to COVID-19?	Cathy W.S. Chen(Department of Statistics, Feng Chia University, Taichung, Taiwan), Sangyeol Lee(Department of Statistics, Seoul National University, Seoul, South Korea), Manh Cuong Dong(Department of Statistics, Feng Chia University, Taichung, Taiwan), Masanobu Taniguchi(Department of Applied Mathematics, Waseda University, Japan)
IS02-3	Measuring Spillover and Diffusion in Mixed Frequency Large Dimensional Spatial Data: Method and Application to Global Pandemic and Unemployment Interactions during Covid-19	Xiaoyi Han(The Wang Yanan Institute for Studies in Economics (WISE), Xiamen University), Yanli Zhu(Business School, Hohai University), Yijiong Zhang(Finance and Financial Risk Management Centre, National University of Singapore (Chongqing)), Ying Chen(Department of Mathematics and Risk Management Institute, National University of Singapore)
IS02-4	Deep Switching State Space Model for Nonlinear Time Series Forecasting with Regime Switching	Xiuqin Xu, Chen Ying(National University of Singapore, Singapore)
IS10	Recent developments in cognitive diagnostic models	Organizers: Koken Ozaki (University of Tsukuba), Kensuke Okada (University of Tokyo) Chair: Kensuke Okada (University of Tokyo)
IS10-1	Cognitive diagnosis models for multiple-choice items and their applications	Koken Ozaki(University of Tsukuba, Japan)
IS10-2	A variational Bayesian posterior approximation method for hidden Markov diagnosis classification models	Yamaguchi Kazuhiro(University of Tsukuba), Alfonso J. Martinez(University of Iowa)
IS10-3	The Practical Application of Cognitive Diagnostic Models to Encourage Students' Deep Understanding and Use of Effective Learning Strategies	Shun Saso, Motonori Oka, Satomi Shiba, Yuri Uesaka(The University of Tokyo, Japan)
IS10-4	Explanatory Cognitive Diagnostic Model for Process Data	Yoshito Tan, Kensuke Okada(The University of Tokyo, Japan)
IS10-5	A generalized class of cognitive diagnostic models for multiple-choice items derived from the log-linear model	Kentaro Fukushima, Kensuke Okada(University of Tokyo, Japan)
CS05	Statistical Process Control / Monte Carlo Simulation	Chair:
CS05-1	A Distribution-free Phase-I Scheme for Quad-aspects Monitoring and Control	Akira Suzuki(Graduate School of Science, Tokyo University of Science, Japan), Amitava Mukherjee(XLRI- Xavier School of Management, India), Hidetoshi Murakami(Tokyo University of Science, Japan)
CS05-2	Stratification and Optimal Resampling in Sequential Monte Carlo	Yichao Li(Center for Statistical Science, Tsinghua University, China), Wenshuo Wang(Department of Statistics, Harvard University, USA), Ke Deng(Center for Statistical Science, Tsinghua University, China), Jun S. Liu(Department of Statistics, Harvard University, USA)
CS05-3	A Distribution-free Phase-II Scheme for Tri-aspect Surveillance using Combinations of Three Orthogonal Statistics	Naoshi Nomoto(Graduate School of Science, Tokyo University of Science, Japan), Amitava Mukherjee(XLRI- Xavier School of Management, India), Hidetoshi Murakami(Tokyo University of Science, Japan)
CS05-4	Nonparametric Monitoring of Unknown Structural Dependence in High-Dimensional Data streams using Pseudo Copula and Eigenvectors	Prof. Amitava Mukherjee(XLRI - Xavier School of Management)
CS06	Regression	Chair:
CS06-1	The naive estimators of a Poisson regression model with measurement errors	Kentarou Wada, Takeshi Kurosawa(Tokyo University of Science, Japan)
CS06-2	Varying coefficient models for extreme value index regression	Koki Momoki, Takuma Yoshida(Kagoshima University, Japan)
CS06-3	A goodness-of-fit measure for logistic regressions under separation	Naoki Kotani, Takeshi Kurosawa(Tokyo University of Science, Japan)
CS06-4	Forward variable selection for ultra-high dimensional quantile regression models	Toshio Honda(Hitotsubashi University, Japan), Chien-Tong Lin(National Tsing Hua University, Taiwan)

Session ID	Title	Authors
IS09	Methods and applications in deep learning	Organizer and Chair: Hsin-Chou Yang (Academia Sinica, Taiwan)
IS09-1	Robust aggregation for federated learning by minimum gamma-divergence estimation	Cen-Jhih Li(Academia Sinica), Pin-Han Huang(National Taiwan University), Yi-Ting Ma(Academia Sinica), Hung Hung(National Taiwan University), Su-Yun Huang(Academia Sinica)
IS09-2	A novel approach for predicting atrial fibrillation recurrence after ablating using deep convolutional neural networks by assessing left atrial curved M-mode	Yi-Ting Hwang(National Taipei University, Taiwan), Hui-Ling Lee(Department of Anesthesia, Chang Gung Memorial Hospital, Taiwan), Chung-Chuan Chou(Chang Gung University College of Medicine, Taiwan)
IS09-3	Deep Learning-Based Segmentation for Pneumothorax Identification in Chest Radiograph: Application of Tensor Dimensionality Reduction Method	Yi-Ju Lee(Institute of Statistical Science, Academia Sinica, Taiwan), Toshinari Morimoto(Department of Mathematics, National Taiwan University, Taiwan), Su-Yun Huang(Institute of Statistical Science, Academia Sinica, Taiwan)
IS16	Recent advances in Computational Statistics and Related Fields II	Organizers: Hiroshi Yadohisa (Doshisha University, Japan) and Tso-Jung Yen (Academia Sinica, Taiwan) Chair: Yuejun Zheng (Doshisha University, Japan)
IS16-1	Training Structured Neural Networks Through Manifold Identification and Variance Reduction	Ching-pei Lee, Zih-Syuan Huang(Academia Sinica)
IS16-2	Feature estimation and testing for linear regression with time series regressors	Junho Yang(Academia Sinica), Suhasini Subba Rao(Texas A&M University)
IS16-3	Comparative analysis of Japanese folk songs using rhythmic indices	Akihiro KAWASE(Doshisha University)
IS16-4	An Empirical Study on Effects of Gaming on Motivation for Learning of College Student -Focusing on Mediation of Generalized Self-Efficacy-	Hanlin Yeh, Ryozo Yoshino, Yuejun Zheng(Doshisha University, Japan)
IS18	Recent Advances in Mixture Modelling	Organizer and Chair: Thomas Yee (University of Auckland, New Zealand)
IS18-1	Cluster Analysis for Ordered Categorical Data	Ivy Liu(Victoria University of Wellington, New Zealand), Daniel Fernandez(Polytechnic University of Catalonia-BarcelonaTech, Spain), Richard Arnold(Victoria University of Wellington, New Zealand), Roy Costilla(Agresearch, New Zealand), Louise McMillan, Shirley Pledger(Victoria University of Wellington, New Zealand)
IS18-2	Merging Modal Clusters via Significance Assessment	Yong Wang(Shengwei Hu)
IS18-3	A Nonparametric Mixture Approach to Density and Null Proportion Estimation in Large-scale Multiple Comparison Problems	Xiangjie Xue, Yong Wang(The University of Auckland, New Zealand)
IS18-4	Generally-Altered, -Inflated, -Truncated and Deflated Negative Binomial Regression	Thomas Yee(University of Auckland, New Zealand), Chenchen Ma(Peking University, China)
CS07	Time Series / Stochastic Process	Chair:
CS07-1	Statistical Modeling of Market Capitalization with Financial Data and ESG Rating Data	Masayuki Jimichi, Chika Saka(Kwansei Gakuin University, Japan), Daisuke Miyamoto(The University of Tokyo, Japan), Syuichi Nagata(Kwansei Gakuin University, Japan)
CS07-2	$I_{\{1\}}$ Common Trend Filtering: An Extension	Ruoyi Bao, Hiroshi Yamada, Kazuhiko Hayakawa(Hiroshima University, Japan)
CS07-3	Bayesian modelling integer-valued transfer function models	Aljo Clair P. Pingal, Cathy W.S. Chen(Feng Chia University, Taiwan)
CS07-4	Adaptive change detection for ergodic diffusion processes based on high frequency data	Yozo Tonaki(Osaka University, Japan), Yusuke Kaino(Kobe University, Japan), Masayuki Uchida(Osaka University, Japan)
CS08	Statistical Software / Qualitative Data	Chair:
CS08-1	Item selection for qualitative data	Hiroko KATAYAMA, Chitose NISHIYAMA(Graduate school of Informatics, Okayama University of Science), Yuichi MORI(Okayama university of science, Japan)
CS08-2	A Taxonomy of Factor Analysis Models: Two- versus Three-Parts and Random- versus Fixed-Scores	Kohei Adachi(Osaka University, Japan)
CS08-3	Integrated online statistics education system with web-based eStat software	Jung Jin Lee(ADA University, Azerbaijan)
CS08-4	compak: An R Package for Conway-Maxwell-Poisson Associated Kernel	Alan Huang, Lucas Sippel(University of Queensland, Australia), Thomas Fung(Macquarie University, Australia)

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IS05	Statistical methods for covariances and other dependence structures	Organizer and Chair: Jaeyong Lee (Seoul National University)
IS05-1	Bayesian Optimal Two-sample Tests in High-dimension	Kyoungjae Lee(Sungkyunkwan University, Korea), Kisung You(Yale School of Medicine, USA), Lizhen Lin(University of Notre Dame, USA)
IS05-2	Scalable and optimal Bayesian inference for sparse covariance matrices via screened beta-mixture prior	Kyoungjae Lee(Sungkyunkwan University), Seongil Jo(Inha University), Jaeyong Lee(Seoul National University)
IS05-3	An efficient parallel block coordinate descent algorithm for large-scale precision matrix estimation using graphics processing units	Young-Geun Choi(Sookmyung Women's University, Korea), Seunghwan Lee, Donghyeon Yu(Inha University, Korea)
IS05-4	Semi-Parametric Contextual Bandits with Graph-Laplacian Regularization	Young-Geun Choi(Sookmyung Women's University, South Korea), Gi-Soo Kim(UNIST, South Korea), Seunghoon Paik(UC Berkeley, USA), Myunghee Cho Paik(Seoul National University, South Korea)
IS06	Design and Analysis of Modern Experiments and Computer Experiments	Organizer and Chair: Frederick Kin Hing Phoa (Academia Sinica, Taiwan)
IS06-1	Predictive Subdata Selection for Computer Models	Ming-Chung Chang(Academia Sinica, Taiwan)
IS06-2	Bagging-Enhanced Sampling Schedule for Functional Quadratic Regression	Ming-Hung Kao(Arizona State University, USA), Hyungmin Rha(Eli Lilly, USA), Rong Pan(Arizona State University, USA)
IS06-3	A Factor Screening Approach for Supersaturated Experiments with an Exponential Family Response via Dantzig Selector 2.0	Jing-Wen Huang(Institute of Statistics, National Tsing Hua University, Taiwan), Frederick Kin Hing Phoa(Institute of Statistical Science, Academia Sinica, Taiwan), Yu-Wei Chen(Institute of Statistics, National Tsing Hua University, Taiwan)
IS06-4	Uniform projection designs and strong orthogonal arrays	Cheng-Yu Sun, Boxin Tang(Simon Fraser University)
IS03	Digital Assets	Organizer and Chair: Wolfgang K. Härdle(Humboldt University of Berlin, Germany)
IS03-1	Analysis of Cedar Plantation Management and Mega-Solar Replacement	Itaka, Shizu(Tokyo University of Science, Japan)
IS03-2	HEDGING CRYPTOS WITH BITCOIN FUTURES	Francis Liu(Department of Business and Economics, Berlin School of Economics and Law, Badensche Str. 52, 10825 Berlin, Germany), Natalie Packham(Department of Business and Economics, Berlin School of Economics and Law, Badensche Str. 52, 10825 Berlin, Germany.), Meng-Jou LU(Department of Finance, Asia University, 500, Lioufeng Rd., Wufeng, Taichung 41354, Taiwan), Wolfgang Karl Härdle(Blockchain Research Center, Humboldt-Universität zu Berlin, Germany. Wang Yanan Institute for Studies in Eco- nomics, Xiamen University, China. Sim Kee Boon Institute for Financial Economics, Singapore Management University, Singapore. Faculty of Mathematics and Physics, Charles University, Czech Republic. National Yang Ming Chiao Tung University, Taiwan.)
IS03-3	Understanding Smart Contracts: Hype or Hope?	Elizaveta Zinovyeva, Raphael C. G. Reule, Wolfgang K. Härdle(Humboldt University of Berlin, Germany)
CS09	Accelerate life test	Chair:
CS09-1	Bayesian Designs for Progressively Type-I Censored Simple Step-Stress Accelerated Life Tests Under Cost Constraint and Order-Restriction	Crystal Wiedner, David Han(The University of Texas at San Antonio, USA)
CS09-2	Inference for the Progressively Type-I Censored $\$K\$$ -Level Step-Stress Accelerated Life Tests Under Interval Monitoring with the Lifetimes from a Log-Location-Scale Family	Aruni Jayathilaka, David Han(The University of Texas at San Antonio, USA)
CS09-3	Adaptive Design and Inference for a Step-Stress Accelerated Life Test	Haifa Ismail-Aldayeh, David Han(The University of Texas at San Antonio, USA)
CS09-4	Design Optimization for the Step-Stress Accelerated Degradation Tests based on Exponential Dispersion Process	David Han(The University of Texas at San Antonio, USA)
CS10	Application	Chair:
CS10-1	Analysis of social media usage among customers in the cosmetics industry	Reina Mishima, Yumi Asahi(Tokyo University of Science, Japan)
CS10-2	Discriminant Analysis of finger plethysmogram wave data in Depressed Patients Using Sample Entropy	Tokihiko Niwa(Kwansei Gakuin Senior High School, Japan), Sou Mirai(Department of Psychiatry, Tokyo Dental College Ichikawa General Hospital, Japan), Shingo Shirahata(Graduate School Of Engineering Science. Japan), Testuro Kamae(Osaka City University Graduate School of Science), Makio Syuukawa(Syuukawa Cardiology Clinic), Makoto Komazawa, Kenichi Itao(WINFrontier Co., Ltd.)
CS10-3	A Study of Impacts of of Historical Contexts on Labor Force Participation Rates for South Korean and Japanese Women Based on Age-by-Period Data	Nobutane Hanayama(Shobi University), Myung J. Hwang(Korean University)
CS10-4	Multiple Testing of Differential Gene Expression in Combined RNA-seq Experiments Based on a Data-Driven Simulation Procedure	Shuen-Lin Jeng(Department of Statistics, Institute of Data Science, and Center for Innovative FinTech Business Models, National Cheng Kung University, Taiwan)