

IWS2018 PRELIMINARY PROGRAMME WITH PARALLEL SESSIONS

SUNDAY

Welcome Party 18:00-20:00, Registration 16:00-18:00, June 24

MONDAY

9:20-09:40

Registration 8:30-9:45, June 25

Opening greetings, Room SALA D'ACTES

Room VS217

Information-based Subdata Selection for Big Data

Session organizer & Chair: Min Yang

9:45-11:00

Min Yang Information-Based Optimal Subdata Selection for LASSO Regression

Haiying Wang Statistical Inference for Big Data through Subdata

W. Zheng Optimal design of sampling survey for efficient parameter estimation

Room VS218

Monte Carlo methods for nonlinear and vector kinetic equations

Session organizers: S.V. Rogasinsky

I.N. Medvedev Universal modification of vector weighted method of correlation

Tracheva N.V., Ukhinov S.A. On the evaluation of spatial-angular distribution function

S.V. Rogasinsky Statistical modelling algorithm for solving the nonlinear Boltzmann equation

11:00-11:30

coffee break

Room SALA D'ACTES

11:30-12:20

PLENARY TALK : Gabriel Wainer

12:20-12:45

C. Ruiz-Martin, G. Wainer, A. Lopez-Paredes Studying the resilience of communication networks under attacks

12:45-13:10

L. Montero, M.P. Linares, J. Salmeron, G. Recio, E. Lorente, J.J. Vázquez Analysis of the reliability of the network of sensors in the field of smart cities

13:10-14:20

lunch

Room VS217

Computer and Physical experiment: Design, Model and Analysis

Session organizer & Chair: Grazia Vicario

14:20-16:00

F. Centofanti, A. Lepore, A. Menafoglio, B. Palumbo, S. Vantini Run-length based methods for the detection of clusters in high-dimensional data

R. Borgoni, C. Galimberti, D. Zappa Identifying and representing clusters of variables in high-dimensional data

G. Vicario, G. Pistone Simulated Variogram-based Error Inspection of Manually Segmented Images

Yu.G. Dmitriev, G.M. Koshkin Combined nonparametric estimators of probability density functions

Room VS218

Monte Carlo methods in the atmosphere optics

Session organizer & Chair: Ukhinov S.A.

Kargin B.A., Kargin A.B., Prigarin S.M., Ukhinova O.S. Statistical Modelling of the atmospheric optical properties

Kargin B.A., Kablukova E.G., Zheng P. Monte Carlo Simulation of Optical Radiance

Korda A.S., Ukhinov S.A. Numerical statistical study of reconstruction algorithms for atmospheric optical properties

V.A. Ogorodnikov, S.M. Prigarin, E.G. Kablukova Stochastic models of atmospheric optical properties

16:00-16:30

coffee break

Inference following Adaptive Designs

Session organizer: N. Flournoy, Chair: J.F. Lopez Fidalgo

16:30-18:10

N. Flournoy, C. May, C. Tomassi Inference under a two-stage adaptive design

N. Flournoy, A. Oron Statistical Implications of Informative Dose Allocation

N. Flournoy, J. Moler, F. Plo Performance Measures for Dose-Finding Experiments

J. F. López Fidalgo, Guillermo Julia, Bayesian optimal designs for the Michaelis-Menten model

R. A. Guchenko, V. B. Melas T-Optimal Designs for Discrimination between

Randomized Quasi Monte Carlo Methods: Numerical Experiments

Session organizer: S.M. Ermakov, Chair: Yu. Kashtanov

Ermakov S.M., Leora S.N. Some properties of quasirandom numbers and their applications

Ermakov S.M., Semenchikov D.N. On quasirandom search

Ermakov S.M., Pogosian A. On Numerical Calculations of Stochastic Integrals

Yu. Kashtanov Stochastic Mesh Method for Non-Linear Functionals on Path

T.M. Tovstik, P.E. Tovstik, D.A. Shirinkina Linear generalized Kalman-Bucy filter

18:10-18:30

TUESDAY**Room VS217**

Perspectives in Optimal Design of Experiments

Session organizer: Rainer Schwabe, Chair: Heinz Holling

- F. Röttger, T. Kahle, R. Schwabe** Geometry of Parameter Regions for Optimal
E. Masoudi, H. Holling, W.K. Wong Finding Optimal Designs for Nonlinear Models
M. Radloff, R. Schwabe Locally D-optimal Designs for Non-linear Models on the Sphere
R. Schwabe, F. Freise, O.I.O. Idais, E. Nyarko, M. Radloff, D. Schmidt The Revision of the D-optimal Design Problem

coffee break**Room SALA D'ACTES**

PLENARY TALK : N. Balakrishnan

K. Samouylov Queueing Models for Performance Analysis of Future Wireless Networks

M. Prus Optimal Designs for Minimax Criteria in Random Coefficients Regression Models

11:30-12:20

12:20-12:45

12:45-13:10

13:10-14:20

lunch**Room VS217**

Experimental Design in Models with Random Parameters

Session organizer & Chair: Maryna Prus

- H. Holling, F. Freise, R. Schwabe** Optimal design for growth curve models
R. Harman, M. Prus Computing optimal experimental designs with respect to the D-optimality criterion
M. Schmidt, R. Schwabe Optimal Designs for Count Data with Random Parameters

Advances in Experimental Designs

Session organizer: Nancy Flournoy

Xiaojian Xu Robust Sequential Designs for Approximate Inference in Generalized Linear Models

coffee break

16:30-18:10

Issues In Inference with Adaptive Designs

Session organizer: Nancy Flournoy

- Yanqing Yi** The Markov decision process for adaptive design of clinical trials
S. Tarima Blinded and Unblinded Sample-size Recalculation under Parametric Assumptions
A. Lane Adaptive Designs for Optimum Observed Fisher Information
Zaher Kmail, K. Eskridge Optimal Design for a Causal Structure

18:10-18:30

Room VS218

Goodness-of-Fit and Related Problems

Session organizer & Chair: Simos Meintanis

- J. Allison, S.G. Meintanis, J. Ngatchou-Wandji** Testing for serial independence based on the empirical characteristic function
A. Fernandez, A. Cabana, H. Joe, D. Morina, P. Puig Modelling count time series via compound distributions
B. Ebner Goodness of Fit Testing via fixed points of distributional transforms
P.-O. Goffard Goodness-of-fit tests for compound distributions with applications

Room VS218

Goodness-of-Fit and Related Problems

Session organizer & Chair: Simos Meintanis

- S. Meintanis** Goodness-of-Fit Tests with Survival Data
C. Pretorius, JWH Swanepoel Bootstrap confidence bounds: splitting the sample
L. Santana, JWH Swanepoel A nonparametric point estimation technique using the Hellinger metric
G. Geenens, P. Lafaye de Micheaux, S. Penev The Hellinger dependence measure

Asymptotic Analysis of Complex Systems

Session organizers: Ekaterina Bulinskaya and Elena Yarovaya

- Ya. Belopolskaya** A stochastic model for the MHD-Burgers system
V. Naoumov, Yu. Gaidamaka, K. Samouylov Analysis of Multicast Queuing Systems
E. Yarovaya, E. Ermishkina Simulation of Branching Random Walks on Multidimensional Lattices
A. Gross A Nonhomogeneous Risk Model
E. Bulinskaya, B. Shigida The probability of the capital staying above zero long time

WEDNESDAY**Room VS217**

Recent advances in the computation of optimal experimental designs

Session organizer & Chair: Radoslav Harman

- L. Pronzato Design of Experiments, Bayesian Quadrature and Sensitivity Analysis
S.D. Ahipasaoglu, B. Tan A New Branch and Bound Algorithm for the D-optimal Design Problem
N. Gaffke A Quasi-Newton Algorithm for Optimal Approximate Linear Regression
L. Filova, R. Harman Ascent with Quadratic Assistance for the Construction of Optimal Experimental Designs

coffee break**Room SALA D'ACTES****Meeting of the LOC and SPC**

A. Steland Inference and change detection for high-dimensional time series

I.Yu. Malova, A. Berred, S.V. Malov On the interval right censored data with application to reliability analysis

lunch**Room VS217**

Methods for Structural Analysis of Complex Data

Session organizer & Chair: Ansgar Steland

- H. Manner Testing for Structural Breaks in Factor Copula Models
N. Lee, Jong-Min Kim Block tensor train decomposition for missing data estimation
A. Piryatinska, Darkhovsky B. Model-free classification of panel data via the local linear regression
Darkhovsky B., Piryatinska A. The ε -complexity of finite dimensional continuous functions

coffee break

Chair: B. Darkhovsky

- E. Yashchin Gradient Analysis of Markov-type Control Schemes and its Applications
N. Mause Inference on the Second Moment Structure of High-Dimensional Stochastic Processes
M. Bours Asymptotics for High-Dimensional Covariance Matrices of Factor Models
J. Noonan, A. Zhigljavsky Approximations of the boundary crossing probabilities for the Studentized sample mean

Conference Dinner, the Bravo Restaurant

Room VS218

Algorithms and estimators of stochastic simulation

Session organizer & Chair: A.V. Voytishek

- Shipilov N.M., A.V. Voytishek On conditional optimization of the randomized Quasi-Monte Carlo method
Abdrazakova A.R., Voytishek A.V. Computable simulated transformations of random variables
Lukinov V. Simulation of the interaction of solitons by the Monte Carlo method
Lotova G.Z. Supercomputer simulation of electron avalanches in gases with ionizing radiation

Room VS218

Numerical simulation of random fields and processes with applications

Session organizers & Chair: V.A. Ogorodnikov

- Ogorodnikov V.A., Khlebnikova E.I., Sereseva O.V. Numerical stochastic modeling of random fields
Ogorodnikov V.A., Khlebnikova E.I., Kargapolova N.A. Monte Carlo simulation of random fields
Ogorodnikov V.A., Medvyatskaya A.M. Approximate spectral model of percolation
Prigarin S.M., Zakovryashin A.V. Fast computation and visualization software for random fields

Algebra and Combinatorics for statistical modeling

Session organizer & Chair: Fabio Rapallo

- R. Fontana, F. Rapallo Aberrations of Orthogonal Arrays with removed runs
P. Semeraro, E. Di Nardo Symbolic method of cumulants for subordinated distributions
G. Varando, E. Riccomagno Algebraic views on classification problems

Thursday

Room VS217

Other talks on statistical tests

9:20-11:00

Session organizer & Chair: L. Salmaso

- [Arboretti R., Ceccato R., Corain L., Ronchi F., L. Salmaso Multivariate small sample inference based on nonparametric rank statistics](#)
[L. Corain, L. Salmaso Nonparametric Permutation-based Testing on Multivariate Location and Scale Parameters](#)
[P. Flores, J. Ocana, T. Sanchez Pretesting Assumptions for the validity of two-stage estimation methods](#)
[V. Svendova, S.A. Herzog, M.G. Schimek Comparing non-parametric bootstrap methods for multivariate data](#)

Room VS218

11:30-13:10

Coffee break

Queueing Models and applications

Session organizer: V. Rykov, Chair: A. Zeifman

- [V. Rykov On steady state probabilities of renewable systems with Marshall-Olkin distributions](#)
[Ya. Satin, E. Morozov, R. Nekrasova, A. Zeifman, K. Kiseleva, A. Sinitcina, A. D. Rosadi, H. Wahyuni, S. Redjeki Modeling the fair market price of Sukuk I](#)
[Chien-Yu Peng, Kun-Hung Lin Optimal Doubling Burn-in Policy Based on Two-stage Sampling](#)

Parametric estimates and solving the problems with random parameters by the method of moments

Session organizer & Chair: O. Soboleva

- [Soboleva O.N., Epov M.I., Kurochkina E.P. Effective coefficients in the elector model](#)
[Mikhailov G.A., Lotova G.Z. New algorithms of Monte Carlo method for inverse problems](#)
[A. Pepelyshev Estimation in continuous time regression models](#)

13:15-13:35

Closing session, Room SALA D'ACTES

lunch

15:30-19:30

Excursion