THIRD CONFERENCE

OF THE INTERNATIONAL SOCIETY FOR NONPARAMETRIC STATISTICS (ISNPS)

AVIGNON, PALACE OF THE POPES, 11-16 JUNE 2016

PROGRAM

CONTENTS

FOREWORDS FROM THE CO-CHAIRS OF THE 2016 ISNPS CONFERENCE

Following the successful ISNPS Conferences in Chalkidiki, Greece and Cadix, Spain, we are pleased to welcome you for the 3rd ISNPS Conference. It will take place in the international conference center of the Palace of the Popes in Avignon, France, June 11th -16th, 2016. The conference is co-sponsored by the SFDS, Société Française de Statistique (French statistical society).

The city of Avignon, city of the Popes in the 14th century, capital of theatre during the summer, is an unique town in France. Its province, La Provence, is an exceptional area with beautiful towns (Nimes, Arles, Orange) and landscapes, including the saw-toothed Dentelles de Montmirail Mountains. The city is close to the sea and the famous "Camargue". The world-renowned vineyards of Châteauneuf-du-Pape extend north of Avignon to Orange, a city famous for its Roman antiquities.

Similarly as in the preceding conferences, the 3rd ISNPS conference will put together recent advances and trends in several areas of nonparametric statistics. With 9 invited speakers, 68 invited sessions with international researchers, more than 420 participants, this conference will be the perfect place to facilitate the exchange of research ideas, promote collaboration between researchers from all over the world and contribute to the further development of the field. The scientific program (scheduled from June the 12th to the 16th with a pause in the afternoon of the 14th) will include plenary talks, special invited talks, invited sessions as well as contributed talks on all areas of nonparametric statistics including Hypothesis testing, Statistical learning, Big data, Adaptive inference, Sparsity, High-dimensional statistical inference and tests, Nonparametric time-series, Object Data Analysis, Extreme values and Risk, Complex data, Functional analysis, Density estimation, Statistical inverse problems, Model selection and validation, Survival analysis, Resampling techniques, Applications of nonparametric statistics.

We hope that you will enjoy this beautiful place and the program of the conference. More information on the invited sessions and invited speakers as well as the full program with abstracts are available on the website of the conference http://www.isnpstat.org/ and on the USB keys in your bags.

For any question, please contact us at: isnps.2016.avignon@gmail.com.

Co-chairs of the 3rd ISNPS Conference

Patrice Bertail, MODAL'X - Université Paris Ouest-Nanterre-La Défense

Delphine Blanke, LMA, Université d'Avignon et des Pays de Vaucluse

Pierre-André Cornillon, IRMAR Université Rennes 2

Éric Matzner-Lober, CEPE et Université Rennes 2

COMMITTEES

COMMUNICATION OFFICER: **Stéphane Menegaldo,** *Telecom ParisTech*

Scientific and organizing committe

Denis Allard, INRA-Avignon

Florent Bonneu, Université d'Avignon

Antoine Chambaz, Université Paris-Ouest

Arnak Dalayan, CREST-ENSAE

Magalie Fromont-Renoir, Université de Rennes II

Edith Gabriel, Université d'Avignon

Valentin Patilea, CREST-ENSAI, Rennes

Philippe Soulier, Université Paris-Ouest

Vincent Rivoirard, Université Paris Dauphine et SFDS

About ISNPS

The International Society for NonParametric Statistics (ISNPS) was founded by Michael Akritas, Soumendra Lahiri and Dimitris Politis in 2010 with the mission "to foster the research and practice of nonparametric statistics, and to promote the dissemination of new developments in the field via conferences, books and journal publications."

The nature of ISNPS is uniquely global, and its international conferences are designed to facilitate the exchange of ideas and latest advances among researchers from all over the world in cooperation with established statistical societies such as the Institute of Mathematical Statistics (IMS) and the International Statistical Institute (ISI).

Executive committee

Michael Akritas, Penn State University

Aurore Delaigle, Melbourne University

Soumen Lahiri, NC State University

Dimitris Politis, University of California San Diego

NEW COUNCIL COMMITTEE ELECTED ON 1/1/2016

Patrice Bertail, Gerda Claeskens, Ricardo Cao, Marc Hallin, Hira Koul, Jens-Peter Kreiss, Thomas Lee, Regina Liu, Wenceslao Gonzalez Manteiga, George Michailidis, Victor Panaretos, Stathis Paparoditis, Jeff Racine, Juan Romo, Qiwei Yao

USEFUL INFORMATIONS

The Convention center

The 3rd ISNPS Conference will take place in the international convention center of the Palace of the Popes in Avignon, France, June 11th -16th, 2016. Some sessions on Sunday and Monday will also take place at the Espace Jeanne Laurent, 100m from the Palace (on the right of the exit) in the Garden behind the Church.

Address: Palais des Papes Place du Palais, 84000 Avignon, France

The convention center's entrance is on the left of the main stairs leading to the main gate of the Palace. The conferences rooms occupy three levels of the left wing of the Palace.

PLENARY SESSIONS WILL TAKE PLACE IN THE SALLE DU CONCLAVE (THIRD FLOOR). SEMI-PLENARY SESSIONS FOR SPECIAL INVITED SPEAKERS WILL TAKE PLACE IN THE SALLE DU CONCLAVE (THIRD FLOOR) AND IN THE GRAND CELLIER BENOIT XII (GROUND FLOOR).

8 rooms will be dedicated to parallel sessions:

- Half of the Great Conclave - Grand Cellier Benoit XII - Chambre du trésorier

- Cubiculaire - Herses Champeaux and Herses Notre-Dame,

two rooms in the building Jeanne Laurent in the garden of the Palace (outside the Palace).

There are also two small rooms, the Studium and la Petite Cuisine (small kitchen) which are equipped with desks and can be used by the participants to work (12 persons maxi in these two rooms).

REGISTRATION

ISNPS staff will be available in the Convention Center, Salle des Gardes and La Paneterie, to register participants.

Registration will begin in the Salles des Gardes at 16:00 on the 11th of June and will be followed by a Welcome reception in the Benedict XII Cloister of the Palace of the Popes around 18:00.

If there is a balance outstanding on your conference booking, you will have to settle the account before your registration pack will be issued. We kindly ask you to wear your conference badge during the conference; we will also need it to enter the building. Staff will be available in the registration desk located in the Salle des Gardes, ground floor (on Sunday) and in La Paneterie, first floor (from Monday to Thursday) to answer any participant queries.

Presentation instructions

The rooms are equipped with a PC and a computer projector. Presenters must provide to the session chair the files with the presentation in PDF (acrobat) or PPT (Powerpoint) format on a USB memory stick. This must be done at least 10 minutes before each session. Invited speakers have 30 min, a maximum of 25 min for their presentation and 5 min for discussions. Speakers in contributed sessions have 20 min, 15 min for their presentation and 5 min for discussions. Chairs are requested to keep the sessions on schedule. Papers should be presented in the order they are listed in the program for the convenience of attendees who may wish to go to the other rooms mid-session to hear particular speakers talks. In the case of absence of the presenter, please use the extra-time for a discussion so that way the remaining talks could stay on schedule. The PC in the lecturer rooms should be used for presentations. IT technicians from the Palace of the Popes will be available during the conference and should be contacted in case of problems.

Social events

WELCOME RECEPTION

The cocktail reception is covered by the fees and it will take place at 18:00 in the Cloître (Cloister) Benoît XII, next to the Paneterie in the conference center on Saturday , June 11.

A Myro Avignonais (Cranberry cream with rosé wine) will be served with salted pieces (Profiterole de chèvre au « Pèbre d'ail », Tartare de saumon aux herbes fraiches, Tonnelet de grenaille à la tapenade, Mini pissaladière Niçoise, Verrine gourmande du soleil, Cassolette de ravioles de Romans au basilic, Tomate, mozzarella comme une pomme d'amour, Carpaccio d'agneau à l'huile vierge, Mini cake aux tomates confites et olives noires, Escabèche de filet de rouget) .

GALA DINNER

The conference dinner is not included in the conference fee. Please check your conference booking confirmation to find out if you have registered and paid to attend the dinner.

The gala dinner can be booked on site by Sunday, June 11 to Monday, June 13.

Dinner will take place on Wednesday, June 15 in one of the most beautiful room of the Palace of the Popes, le Grand Tinel. The meeting point will be at 19:00hr in la Paneterie of the conference center. Staff will be requesting dinner tickets on arrival at the main gate of the Grand Tinel. The end of the dinner is expected about midnight. The meal will be served by the Grand Chef Olivier Marseille.

Special dietary requirements, vegetarian and vegan meals must have all been indicated at the registration desk. If you have requested a special diet, please inform the conference staff when you collect your meals. Price: €70.00

Excursions

The afternoon of Tuesday the 14th of June is free. The agency PO (Tourist office of Avignon) **compta@agence-po.com** proposes you three types of excursions:

Guided visit of Avignon (half day), in English: 15 euros (no transportation, includes the guide and visit of monuments).

Guided visit of the typical village of Châteauneuf du Pape (half day), in English: including a visit of a cave and a special wine degustation program: 48 euros (includes transportation, the guide and wine tasting).

Guided visit of Nimes in English (including transportation, guide and visit): 38 euros.

For accompanying persons or interested people, the agency PO can arrange special tours to the south (Camargue, Arles etc…) or to the places proposed on Tuesday.

The excursions can be booked on site in La Paneterie, by Sunday, June 11 to Thursday, June 16.

Accommodation

Accommodation is not included in your conference registration. In case of any problem with your booking please contact the agency PO, **compta@agence-po.com**

Meals and refreshments

Tea and Coffee breaks will be served in the Paneterie according to the program. On Sunday, a welcome Coffee will take place at 8:30 in the Paneterie before the start of the scientific program of the conference.

Luncheons (ameliorated sandwiches) will be served in la Paneterie and the Cloître Benoit XII. You can also check the map of the Palace area, where you will find some bars and restaurants to lunch / dinner. There is a lot in La Place de l'Horloge, 200m from the Palace.

Wireless internet connections

Wireless internet is available across the Palace, enabling participants to use their own laptops to connect to the internet. Wifi will be mainly available in La Paneterie, the Cellier Benoit XII, the Conclave and the Salle des Gardes. The name on the network and the password will be available on site.

SATURDAY JUNE 11

15h00	REGISTRATION
18h00	WELCOME COCKTAILS ROOM CLOÎTRE BENOÎT XII

SUNDAY JUNE 12

8h30-9h00	Registration and introduction
9h00-10h00	**PLENARY SESSION : T. MIKOSCH**
10h00-10h30	COFFEE BREAK
10h30-12h30	Eimahl Fromont Liu Hart Dabo Johannes Sperlich C-S-11
12h30-14h15	LUNCH
14h15-16h15	Soulier Wang, H. Romo Abadir Dudek Abramson C-S-15 C-S-10
16h15-16h45	COFFEE BREAK
16h45-18h45	Sabourin Sapatinas Chen G. Schimek Dalalyan Akritas C-S-3 C-S-13

MONDAY JUNE 13

8h30-10h30	Bunea Wang, S. Dette Xie Wang, Q. C-S-4 C-S-5 C-S-14
10h30-11h00	COFFEE BREAK
11h00-13h00	Rivoirard Kratz Datta Xu Meintanis Vieu C-S-12 C-S-16
13h00-14h15	LUNCH
14h15-16h15	Ghoshal Markovich Vasiliev Munk Meintanis Vieu Koul C-S-9
16h15-16h45	COFFEE BREAK
16h45-18h45	Lahiri Huskova Politis Muller Nordman Parast Wintenberger C-S-17

TUESDAY JUNE 14

8h30 - 9h30	**PLENARY SESSION : A. OWEN**	
9h30-10h30	**INVITED SESSION R. LIU**	**INVITED SESSION : G. BIAU**
10h30-11h00	COFFEE BREAK	
11h00-13h00	Durot Dahlhaus Pensky Dasgupta Marron Zakoian	
	LUNCH AND SOCIAL PROGRAMM	

WEDNESDAY JUNE 15

8h30-10h30	Barnejee Cao Paparoditis Hallin Schick Kreiss	
10h30-11h00	COFFEE BREAK	
11h00-13h00	**PETER HALL MEMORIAL SESSION : P. BICKEL, ISNPS AWARDS**	
13h00-14h15	LUNCH	
14h15-16h15	Chambaz Racine Van Keilegom Girardin Dutta Patrangenaru	
16h15-16h45	COFFEE BREAK	
16h45-17h45	**PLENARY SESSION : S. VAN DE GEER**	
17h45-18h45	**INVITED SESSION : A. RAHBEK**	**INVITED SESSION : W. POLONIK**
19h00	**GALA DINNER**	

THURSDAY JUNE 16

8h30-10h30	C-S 1 C-S-8 C-S-2 C-S-6 C-S-7 C-S-18
10h30-11h00	COFFEE BREAK
11h00-13h00	Delaigle Song Gautier Magdalinos Leskow Chiaromonte
13h00-14h15	LUNCH
14h15-15h15	**PLENARY SESSION : S. MALLAT**

DETAILED PROGRAM

SUNDAY THE 12TH OF JUNE

8H30-9H00

WELCOME COFFEE

8H50-9H00 Room: Conclave

INTRODUCTION TO THE 3RD ISNPS CONFERENCE

by **Patrice Bertail,** *univ. Paris-Ouest, France and* **Eric Matzner-Lober,** *CEPE and Univ. Rennes II, France*

9H00-10H00 Room: Conclave

PLENARY SESSION

SESSION CHAIR: **Patrice Bertail,** *University Paris-Ouest, Nanterre, France*

Thomas Mikosch, *University of Copenhaguen, Denmark*

THE AUTO- AND CROSS-DISTANCE CORRELATION FUNCTIONS OF A MULTIVARIATE TIME SERIES AND THEIR SAMPLE VERSIONS

10H00-10H30

COFFEE BREAK: LA PANETERIE AND CLOÎTRE BENOIT XII

PARRALLEL SESSIONS 10:30-12:30

10H30-12H30 Room: Espace Jeanne Laurent 1

INVITED SESSION **RECENT ADVANCES IN EXTREME VALUE STATISTICS**

SESSION ORGANISER:
John Einmahl, *Univ. of Tilburg, The Netherlands*

SESSION CHAIR: **John Einmahl,** *Univ. of Tilburg*

INVITED SPEAKERS:
Laurens de Haan, *Univ. of Lisbon, Portugal and Rotterdam, The Netherlands*
NONPARAMETRIC TREND IN EXTREME VALUE INDICES

Deyuan Li, *Shanghai Univ., China*
ESTIMATION OF HIGH QUANTILES FOR QUANTILE AUTOREGRESSION MODEL

Yi He, *Tilburg Univ., The Netherlands*
ASYMPTOTIC NORMALITY IN EXTREME DEPTH-BASE QUANTILE REGION ESTIMATION

John Einmahl, *Univ. of Tilburg, The Netherlands*
A CONTINUOUS UPDATING WEIGHTED LEAST SQUARES ESTIMATOR OF TAIL DEPENDENCE IN HIGH DIMENSIONS

10H30-12H30 Room: Herses Notre-Dame

INVITED SESSION **HYPOTHESIS TESTING AND STATISTICAL LEARNING**

SESSION ORGANISER:
Magalie Fromont, *Univ. de Rennes II, France*

SESSION CHAIR: **Magalie Fromont,** *Univ. Rennes II*

INVITED SPEAKERS:
Arthur Gretton, *Centre for Computational Statistics and Machine Learning at UCL, London*
KERNEL STATISTICAL TESTS FOR RANDOM PROCESSES

Barath Sriperumbudur, *The Statistical Laboratory, Univ. of Cambridge, UK*
ON THE KERNEL CHOICE IN RKHS-BASED TWO-SAMPLE TESTS

Pierre Neuvial, C*NRS, Univ. d'Évry Val d'Essonne, France*
ON FALSE DISCOVERY RATE THRESHOLDING FOR CLASSIFICATION UNDER SPARSITY

Ery Arias-Castro, *Department of Mathematics, Univ. of California, San Diego, USA*
ON THE CONSISTENCY OF THE CROSSMATCH TEST

10H30-12H30 Room: Grand Conclave

INVITED SESSION **DEPTH FOR MULTIVARIATE AND FUNCTIONAL SETTINGS AND APPLICATIONS**

SESSION ORGANISER:
Regina Liu, *Rutgers University, USA*

SESSION CHAIR: **Regina Liu,** *Rutgers University, USA*

INVITED SPEAKERS:
Yi Fan, *Rutgers University, USA*
NONPARAMETRIC TOLERANCE TUBES FOR FUNCTIONAL DATA

Sara Lopez-Pintado, *Columbia University, USA*
ROBUST NONPARAMETRIC METHODS FOR ANALYZING IMAGING DATA BASED ON A MULTIVARIATE VOLUME DEPTH

Derek Young, *University of Kentucky, USA*
MULTIVARIATE HYPERRECTANGULAR TOLERANCE REGIONS BASED ON DATA DEPTH

10H30-12H30 Room: Cellier Benoit XII

INVITED SESSION **NONPARAMETRICS FOR BIG DATA AND BAYESIAN ANALYSIS**

SESSION ORGANISER:
Jeffrey Hart, *Texas A&M University*

SESSION CHAIR: **Jeffrey Hart,** *Texas A&M univ.*

INVITED SPEAKERS:
Anirban Bhattacharya, *Texas A&M, USA*
FAST SAMPLING WITH GAUSSIAN SCALE-MIXTURE PRIORS

Subhadeep Mukhopadhyay, *Temple University, USA*
BREAKING THE BARRIERS: NEW DEVELOPMENTS IN THE THEORY OF SPECTRAL ANALYSIS OF BIG GRAPHS

Jeffrey Hart, *Texas A&M University, USA*
NONPARAMETRIC GOODNESS OF FIT VIA CROSS-VALIDATION BAYES FACTORS

Steve MacEachern, *The Ohio State University, Columbus*
TBA

10H30-12H30 Room: Espace Jeanne Laurent 2

INVITED SESSION **ASYMPTOTIC PROPERTIES IN NONPARAMETRIC SPATIAL PROBLEMS**

SESSION ORGANISER:
Sophie Dabo Niang, *univ. Lille III, France* and **Anne-Françoise Yao**, *Univ. Clermont-Ferrand, France*

SESSION CHAIR: **Sophie Dabo-Niang,** *Univ. Lille III*

INVITED SPEAKERS:
Akim Adekpedjou, *Missouri Univ. of Science and Technology, US*

SEMIPARAMETRIC ESTIMATION WITH SPATIALLY CORRELATED RECURRENT EVENT DATA

Raquel Menezes, *University of Minho, Portugal*

NONPARAMETRIC APPROACHES FOR ESTIMATING RISK MAPS

Aboubacar Amiri, *University of Lille, France*

NON PARAMETRIC ESTIMATION OF SPACE-VARYING DISTRIBUTION

Anne-Françoise Yao, *University of Clermont-Ferrand, France*

A NEW FRAMEWORK FOR STATISTICAL ANALYSIS AND SIMULATIONS IN MEDICAL STUDIES

10H30-12H30 Room: Cubiculaire

INVITED SESSION **NONPARAMETRIC INFERENCE IN THE PRESENCE OF ENDOGENEITY**

SESSION ORGANISER:
Jan Johannes, *Ruprecht-Karls-Universität Heidelberg, Germany*

SESSION CHAIR: **Jan Johannes,** *Ruprecht-Karls-Universität Heidelberg, Germany*

INVITED SPEAKERS:
Pascale Lavergne, *Toulouse School of Economics, Toulouse, France*

INSTRUMENTAL REGRESSION VIA SPLINE SMOOTHING

Pierre Maréchal, *Univ. Paul Sabatier, Toulouse, France*

TARGETED SOLUTIONS TO LINEAR ILL-POSED PROBLEMS: A GENERALIZATION OF MOLLIFICATION

Anne Vanhems, *Toulouse School of Economics, Toulouse, France*

SOLVING INVERSE PROBLEMS IN ECONOMETRICS USING A MOLLIFICATION

Nicolas Asin, *Univ. Catholique de Louvain, Belgium*

NONPARAMETRIC INSTRUMENTAL REGRESSION: ADAPTIVE ESTIMATION IN PRESENCE OF DEPENDENCE

10H30-12H30 Room: Chambre du Trésorier

INVITED SESSION **RECENT ADVANCES IN NON- AND SEMIPARAMETRIC DURATION ANALYSIS**

SESSION ORGANISER:
Maria-Dolores Martinez-Miranda, Jens Perch-Nielsen and Stefan Sperlich, *Univ. of Geneva, Switzerland*

SESSION CHAIR: **Stefan Sperlich,** *Univ. Geneva,*

INVITED SPEAKERS:
Thomas Scheike, *Univ. of Copenhagen, Denmark*

LEFT TRUNCATION FOR CLUSTERED SURVIVAL DATA

Lena Janys, *Univ. of Bonn, Germany*

UNOBSERVED HETEROGENEITY IN SEMIPARAMETRIC HAZARD MODELS

Munir Hiabu, *City Univ. London, UK*

SMOOTH BACKFITTING OF MULTIPLICATIVE STRUCTURED HAZARDS

James Wolter, *Oxford Univ., UK*

KERNEL ESTIMATION OF HAZARD FUNCTIONS WHEN OBSERVATIONS HAVE DEPENDENT AND COMMON COVARIATES

10H30-12H30 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-11 SURVIVAL ANALYSIS/CENSORED DATA**

SESSION CHAIR: **Ingrid Van Keilegom**, *Univ. Catholique de Louvain, Belgium*

Angelina Roche, *CEREMADE, Univ. Paris Dauphine, France*

NONPARAMETRIC ESTIMATION OF THE HAZARD RATE IN A MULTIPLICATIVE CENSORING MODEL

Gwennaëlle Mabon, *CREST - ENSAE, Malakoff, France*

ADAPTIVE DECONVOLUTION OF SURVIVAL FUNCTION ON THE NONNEGATIVE REAL LINE

Mickaël De Backer, *Université Catholique de Louvain, Belgium*

COPULA QUANTILE REGRESSION WITH CENSORED DATA

Zohra Guessoum, *Lab MSTD, Faculté de mathématiques, USTHB El Alia, Algeria*

UNIFORM STRONG CONVERGENCE OF THE DISTRIBUTION FUNCTION ESTIMATOR FOR ASSOCIATED, TRUNCATED AND CENSORED DATA

12H30-14H15

LUNCH IN LA PANETERIE AND CLOÎTRE BENOIT XII
OR IN RESTAURANTS OUTSIDE THE PALACE OF THE POPES

PARRALLEL SESSIONS 14:15-16H45

14H15-16H45 Room: Espace Jeanne Laurent 1

INVITED SESSION **RISK**

SESSION ORGANISER:
Philippe Soulier, *Univ. Paris-Ouest-Nanterre-La Défense, France, session sponsored by ANR AMERISKA*

SESSION CHAIR: **Philippe Soulier,** *Univ. Paris-Ouest*

INVITED SPEAKERS:
Holger Drees, *Hamburg Univ., Germany*

BOOTSTRAPPING THE DISTRIBUTION OF TAIL PROCESSES

Enkelhed Hashorva, *HEC Lausanne, Switzerland*

RUIN PROBABILITY & RUIN TIME APPROXIMATION FOR $GAMMA$-REFLECTED GAUSSIAN RISK MODELS WITH TAX

Krzysztof Dębick, *Wroclaw Univ., Switzerland*

RUIN PROBABILITY FOR CORRELATED BROWNIAN MOTIONS

Rafal Kulik, *Ottawa Univ., Canada*

ESTIMATION OF THE EXPECTED SHORTFALL GIVEN AN EXTREME COMPONENT

14H15-16H45 Room: Conclave

INVITED SESSION **NONPARAMETRIC TEST AND MODELLING IN COMPLEX DATA**

SESSION ORGANISER:
Haiyan Wang, *Kansas State Univ., USA*

SESSION CHAIR: **Haiyan Wang** *Kansas State Univ., USA*

INVITED SPEAKERS:
James W. Neill, *Kansas State Univ., USA*
APPLICATIONS OF VECTOR FIELDS ON INFINITE DIMENSIONAL MANIFOLDS TO MODEL CHECKING AND THE FOUNDATIONS OF STATISTICS

Mohammed Gharaibeh, *Al al-Bayt Univ.*
NONPARAMETRIC LACK-OF-FIT TEST OF NONLINEAR REGRESSION IN PRESENCE OF HETEROSCEDASTIC VARIANCES

Juan Du, *Kansas State Univ., USA*
SPATIAL FUNCTIONAL MODELLING OF WEATHER CHANGE IMPACT ON CORN YIELD IN KANSAS

Haiyan Wang, *Kansas State Univ., USA*
A NEW TWO-SAMPLE TEST FOR SKEWED POPULATIONS BASED ON EDGEWORTH EXPANSION AND ITS APPLICATION IN HIGH DIMENSIONAL CLASSIFICATION

14H15-16H45 Room: Espace Jeanne Laurent 2

INVITED SESSION **ROBUST FUNCTIONAL DATA ANALYSIS**

SESSION ORGANISER:
Juan Romo, *Universidad Carlos III de Madrid, Spain*

SESSION CHAIR: **Juan Romo,** *Universidad Carlos III de Madrid*

INVITED SPEAKERS:
Rosaria Ignaccolo, *Univ. degli Studi di Torino, Italy*
BOOTSTRAP BASED UNCERTAINTY BANDS FOR PREDICTION IN FUNCTIONAL KRIGING

Alicia Nieto-Reyes, *Univ. de Cantabria, Santander, Spain*
A GENERAL NOTION OF FUNCTIONAL SYMMETRY

Carlo Sguera, *Univ. Carlos III de Madrid, Madrid, Spain*
GLOBAL AND LOCAL FUNCTIONAL DEPTHS

Claudio Agostinelli, *Univ. degli Studi di Trento, Italy*
LOCAL DEPTH FOR FUNCTIONAL DATA ANALYSIS

14H15-16H45 Room: Cellier Benoit XII

INVITED SESSION **TIME SERIES**

SESSION ORGANISER:
Karim Abadir, *Imperial College London, UK (11-13 june)*

SESSION CHAIR: **Karim Abadir,** *Imperial College London*

INVITED SPEAKERS:
Alessandra Luati, *Univ. Bologna, Italy*
GENERALISED PARTIAL AUTOCORRELATIONS AND THE MUTUAL INFORMATION BETWEEN PAST AND FUTURE

Michael Rockinger, *Univ. Lausanne, Switzerland*
JUMP DETECTION IN HIGH-FREQUENCY STOCK DATA

Abderrahim Taamouti, *Univ. Durham, UK*
MEASURING (NONLINEAR) GRANGER CAUSALITY IN QUANTILES

Karim Abadir, *Imperial College, London, UK*
EXPLICIT SOLUTIONS FOR THE ASYMPTOTICALLY-OPTIMAL BANDWIDTH IN CROSS VALIDATION

14H15-16H45 Room: Cubiculaire

INVITED SESSION **BOOTSTRAP METHODS WITH APPLICATIONS TO TIME SERIES AND HYPOTHESIS TESTING**

SESSION ORGANISER:
Anna Dudek, *Univ. Rennes II, Rennes, France*

SESSION CHAIR: **Anna Dudek,** *Univ. Rennes II*

INVITED SPEAKERS:
Magalie Fromont, *Univ. Rennes II, Rennes, France*
BOOTSTRAP AND PERMUTATION INDEPENDENCE TESTS FOR POINT PROCESSES, WITH APPLICATIONS IN NEUROSCIENCE

Carsten Jentsch, *Univ. of Mannheim, Mannheim, Germany,*
BOOTSTRAPPING INAR MODELS

Anne Leucht, *Technische Univ. Braunschweig, Braunschweig, Germany*
GOODNESS-OF-FIT TESTING AND NONPARAMETRIC ESTIMATION IN COUNT TIME SERIES

Anna Dudek, *Univ. Rennes II, Rennes, France*
GENERALIZED SEASONAL TAPERED BLOCK BOOTSTRAP

14H15-16H45 Room: Chambre du Trésorier

INVITED SESSION **INFERENCE IN THE ANALYSIS OF COMPLEX DATA**

SESSION ORGANISER:
Ian Abramson, *UC San Diego, USA*

SESSION CHAIR: **Ian Abramson,** *UC San Diego, USA*

INVITED SPEAKERS:
Annie Qu, *Univ. Illinois at Urbana-Champaign, USA*
INDIVIDUALIZED VARIABLE SELECTION

Jelena Bradic, *Univ. California at San Diego, USA*
ROBUST CONFIDENCE INTERVALS IN HIGH-DIMENSIONAL CENSORED REGRESSION

Hanna Jankowski, *York Univ., USA*
EFFECTIVE DOSE ESTIMATION VIA SINGLE INDEX MODELS

Heping Zhang, *Yale Univ., USA*
VARIABLE SELECTION WITH PRIOR INFORMATION FOR GENERALIZED LINEAR MODELS VIA THE PRIOR LASSO METHOD

14H15-16H45 Room: Herses Notre-Dame

CONTRIBUTED SESSION **CS-15 ADAPTATIVITY/MINIMAX**

SESSION CHAIR: **Delphine Blanke,** *Univ. Avignon, France*

Jan Johannes, *Inst. für Angew. Mathematik Ruprecht-Karls-Universität Heidelberg Germany*
ADAPTIVE BAYESIAN ESTIMATION IN INDIRECT GAUSSIAN SEQUENCE SPACE MODELS

Zoltan Szabo, *Gatsby Unit, University College London, UK*
MINIMAX-OPTIMAL DISTRIBUTION REGRESSION

Madison Giacofci, *IRMAR, Université Rennes 2, France*
MINIMAX WAVELET ESTIMATION FOR MULTISAMPLE HETEROSCEDASTIC NONPARAMETRIC REGRESSION

Sabyasachi Chatterjee, *University of Chicago, USA*
ADAPTIVE RISK BOUNDS IN UNIMODAL REGRESSION

Leszek Plaskota, *University of Warsaw, Warsaw, Poland*
MINIMAX ESTIMATION OF HOLDER FUNCTIONS; A COMPLEXITY ANALYSIS

14H15-16H45 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-10 GOODNESS OF FIT/ RANK TESTS**

SESSION CHAIR: **Salim Bouzebda,** *Université de Technologie de Compiègne, France*

Benjamin Colling, *Institut de statistique, Université catholique de Louvain, Belgium*
GOODNESS-OF-FIT TESTS IN SEMIPARAMETRIC TRANSFORMATION MODELS USING THE INTEGRATED REGRESSION FUNCTION

Ronan Le Guével, *IRMAR, UMR 6625, Université Rennes 2, Rennes, France*
GOODNESS-OF-FIT TEST FOR MULTISTABLE LÉVY PROCESSES

Charl Pretorius, *North-West University, Potchefstroom, South Africa*
A MONTE CARLO EVALUATION OF THE PERFORMANCE OF TWO NEW TESTS FOR SYMMETRY

Salim Bouzebda, *Universite de Technologie de Compiègne, France*
STRONG APPROXIMATIONS FOR A CLASS OF INTEGRATED EMPIRICAL PROCESSES WITH APPLICATIONS TO STATISTICAL TESTS

16H15-16H45

COFFEE BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

16H45-18H45 Room: Espace Jeanne Laurent 1

INVITED SESSION **MULTIVARIATE AND INFINITE DIMENSIONAL EXTREMES: RECENT ADVANCES**

SESSION ORGANISER:
Anne Sabourin, *Telecom ParisTech, Paris, France*

SESSION CHAIR: **Anne Sabourin**, *Telecom ParisTech*

INVITED SPEAKERS:
Johan Segers, *Univ. Catholique de Louvain, Belgium*
MULTIVARIATE NONPARAMETRIC ESTIMATION OF THE PICKANDS DEPENDENCE FUNCTION USING BERNSTEIN POLYNOMIALS

Gennady Samorodnitsky, *Cornell University, USA*
MULTIVARIATE SUBEXPONENTIAL DISTRIBUTIONS AND THEIR APPLICATIONS

Charles Tillier, *Univ. Paris-Ouest, Nanterre, France*
RISK MEASURES FOR REGULARLY VARYING SEQUENCES OF RANDOM LENGTH

Anne Sabourin, *Telecom ParisTech, Paris, France*
MULTIVARIATE EXTREME EVENTS: DIMENSION REDUCTION BY THRESHOLDING OR FEATURE CLUSTERING.

16H45-18H45 Room: Herses Notre-Dame

INVITED SESSION **TESTING IN HIGH-DIMENSIONAL SETTINGS**

SESSION ORGANISER:
Theofanis Sapatinas, *Dpt Mathematics and Statistics, Univ. of Cyprus, Cyprus*

SESSION CHAIR: **Theofanis Sapatinas,** *Univ. of Cyprus, Cyprus*

INVITED SPEAKERS:
Christina Butucea, *Univ. Marne-La-Vallée et CREST-GENES, France*

ADAPTIVE MINIMAX TESTS FOR LARGE COVARIANCE MATRICES WITH INCOMPLETE DATA

Clement Marteau, *Univ. de Lyon, France*

MULTIDIMENSIONAL TWO-COMPONENT GAUSSIAN MIXTURES DETECTION

Nicolas Verzelen, *Laboratoire de biométrie, INRA, Montpellier, France*

DETECTION AND FEATURE SELECTION IN SPARSE MIXTURE MODELS

16H45-18H45 Room: Espace Jeanne Laurent 2

INVITED SESSION **FUNCTIONAL AND HIGH DIMENSIONAL DATA**

SESSION ORGANISER:
Song Xi Chen, *Peking Univ. and Iowa State Univ.,USA*

SESSION CHAIR: **Song Xi Chen,** *Peking Univ. and Iowa State Univ., USA*

INVITED SPEAKERS:
Huazhen Lin, *SouthWestern Univ. of Economics and Finance, China*

A SEMIPARAMETRICALLY EFFICIENT ESTIMATOR OF THE TIME-VARYING EFFECTS FOR SURVIVAL DATA WITH TIME-DEPENDENT TREATMENTS

Hui Huang, *Peking Univ., China, Joint Modelling of Trajectory*

DATA WITH INFORMATIVE DROPOUT

Bin Guo, *Sichuan University and Song Xi Chen*

IOWA STATE AND PEKING UNIVERSITY, USA, HIGH DIMENSIONAL STOCHASTIC REGRESSION WITH LATENT FACTORS,

Yumou Qiu, *University of Nebraska, USA*

A NEIGHBORHOOD-ASSISTED TEST FOR HIGH-DIMENSIONAL MEAN VECTORS

16H45-18H45 Room: La chambre du Trésorier

INVITED SESSION **MODELLING AND INFERENCE IN HIGH DIMENSIONS**

SESSION ORGANISER:
Michael G. Schimek, *Institute for Medical Informatics, Statistics and Documentation, Medical Univ. of Graz, Austria*

SESSION CHAIR: **Michael G. Schimek,** *Medical Univ. of Graz, Austria*

INVITED SPEAKERS:
Karthik Bharath, *Univ. Nottingham, UK,*

RANDOM WARPING FUNCTIONS FOR LANDMARK-CONSTRAINED ALIGNMENT OF FUNCTIONAL DATA

Florian Frommlet, *Medical Univ. Vienna, Austria,*

HIGH DIMENSIONAL MODEL SELECTION WITH AN ADAPTIVE RIDGE PROCEDURE FOR L_0 REGULARIZATION

Veerabhadran Baladandayuthapani, *MD Anderson Cancer Center, TX, USA,*

BAYESIAN NONPARAMETRIC GRAPH CLUSTERING

Michael G. Schimek, *Medical Univ. of Graz, Austria,*

A DISTRIBUTION FUNCTION APPROACH FOR SIGNAL RECONSTRUCTION FROM RANKING DATA

16H45-18H45 Room: Cubiculaire

INVITED SESSION **NONASYMPTOTIC GUARANTEES IN HIGH-DIMENSIONAL STATISTICAL INFERENCE**

SESSION ORGANISER:
Arnak Dalalyan, *CREST-ENSAE-GENES, France*

SESSION CHAIR: **Arnak Dalalyan,** *CREST-ENSAE-GENES, France*

INVITED SPEAKERS:
Joseph Salmon, *Telecom ParisTech, Paris, France*
GAP SAFE RULES: SAFE SCREENING RULES TO SPEED-UP SPARSE REGRESSION

Pierre Bellec, *ENSAE ParisTech, Paris, France,*
AGGREGATION OF SUPPORTS ALONG THE LASSO PATH

Quentin Berthet, *Univ. of Cambridge, UK*
TRADE-OFFS IN STATISTICAL LEARNING

Alexandra Carpentier, *Univ. of Potsdam, Netherlands*
CONFIDENCE SETS FOR MATRIX COMPLETION

16H45-18H45 Room: Conclave

INVITED SESSION **HIGH DIMENSIONAL DATA MODELING**

SESSION ORGANISER:
Michael Akritas, *Penn State Univ., USA*

SESSION CHAIR: **Michael Akritas,** *Penn State Univ., USA*

INVITED SPEAKERS:
Eliana Christou, *Penn State Univ., USA*
VARIABLE SELECTION IN HETEROSCEDASTIC SINGLE INDEX QUANTILE REGRESSION

Bing Li, *Penn State Univ., USA*
NONLINEAR SUFFICIENT DIMENSION REDUCTION FOR FUNCTIONAL DATA

Junli Lin, *Penn State Univ., USA*
ASSOCIATION ANALYSIS VIA SPEARMAN RV (SRV) AND KERNEL SPEARMAN RV (KSRV)

Michael Akritas, *Penn State Univ., USA*
LEAST SQUARES ESTIMATION OF THE CENTRAL MEAN SUBSPACE

16H45-18H45 Room: Cellier Benoit XII

CONTRIBUTED SESSION **CS-3 SEMIPARAMETRIC STATISTICS AND LOWER BOUNDS**

CHAIR: **Valentin Patilea**, *CREST-ENSAI, Rennes*

Stefan Sperlich, *Geneva School of Economics, University of Geneva, Switzerland*
UNHAPPY WITH SEMI-PARAMETRICS?

Serguei Novak, *Middlesex University London, UK*
NON-PARAMETRIC LOWER BOUNDS AND INFORMATION FUNCTIONS

Adrien Saumard, *CREST, ENSAI, Rennes, France*
EXCESS RISK CONCENTRATION IN LEAST-SQUARE REGRESSION WITH HETEROSCEDASTIC NOISE

Miroslaw Pawlak, *Dept of Electrical and Computer Eng., University of Manitoba, Canada*
NONPARAMETRIC AND SEMIPARAMETRIC INFERENCE FOR SIGNAL SYMMETRIES

Dimitrios Bagkavos, *Dept of Mathematics, University Of Birmingham, Birmingham, UK*
SEMIPARAMETRIC SMOOTH ESTIMATION OF THE HAZARD RATE ESTIMATION

16H45-18H45 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-13 SPARSITY/LASSO**

CHAIR: **Pierre-André Cornillon,** *Univ. Rennes 2*

Wojciech Rejchel, *Nicolaus Copernicus University, Poland*

ASYMPTOTIC PROPERTIES OF U-PROCESSES WITH CONVEX LOSS AND WEIGHTED LASSO PENALTY

Perrine Soret, *Univ. Bordeaux, ISPED, Bordeaux, France*

LASSO-TYPE ESTIMATORS FOR NON-PARAMETRIC MIXED-EFFECTS MODELS: APPLICATION TO HIGH-DIMENSIONAL DATA FROM A VACCINE CLINICAL TRIAL FOR HIV

Matus Maciak, *Charles University in Prague, Czech Republic*

CHANGE-POINTS AND SHAPE CONSTRAINS IN LASSO REGULARIZED NONPARAMETRIC REGRESSION

Eugen Pircalabelu, *KU Leuven, ORSTAT and Leuven Statistics Research Center, Belgium*

JOINT SPARSE GRAPHICAL MODELS FOR BRAIN IMAGING DATA WITH DIFFERENT COARSENESS LEVELS

Thomas Porter, *The University of Sydney, Australia*

HIGHER CRITICISM - AN ALTERNATE INTERPRETATION

MONDAY THE 13TH OF JUNE

8H30-10H30

PARRALLEL SESSIONS

8H30-10H30 Room: Conclave

INVITED SESSION **NEW ADVANCES IN NETWORK MODELLING**

SESSION ORGANISER:
Florentina Bunea, *Dpt of Statistical Science, Cornell Univ., Ithaca, USA*

SESSION CHAIR: **Florentina Bunea,** *Cornell Univ., Ithaca, USA*

INVITED SPEAKERS:
Harry Zhou, *Dpt Statistics, Yale Univ., USA*

A GENERAL FRAMEWORK FOR BAYES STRUCTURED LINEAR MODELS

Sofia Olhede, *Dpt Statistical Science*

UNIV. CENTRAL LONDON, UK, NONPARAMETRICS FOR NETWORKS

Patrick Wolfe, *Dpt Statistical Science,*

UNIV. CENTRAL LONDON, UK, BIG NETWORK DATA

Martin Royer, *Univ. Paris-Sud, France*

VARIABLE CLUSTERING, G-MODELS AND CONVEX OPTIMIZATION

8H30-10H30 Room: Cellier Benoit XII

INVITED SESSION RECENT ADVANCES ON NONPARAMETRIC STATISTICAL INFERENCE

SESSION ORGANISER:
Suojin Wang, *Texas A&M Univ., USA (15 june)*

SESSION CHAIR: **Suojin Wang,** *Texas A&M Univ.*

INVITED SPEAKERS:
Jun Shao, *Univ. of Wisconsin, USA,*

EFFICIENT MEAN ESTIMATION WITH NONIGNORABLE NONRESPONSE VIA SUFFICIENT DIMENSION REDUCTION

Alan Welsh, *Australian National Univ., Australia*

ROBUSTNESS OF QUADRATIC INFERENCE FUNCTION ESTIMATORS

Suojin Wang, *Texas A&M Univ.,USA*

A NEW NONPARAMETRIC TEST FOR CHECKING THE EQUALITY OF THE CORRELATION STRUCTURES OF TWO TIME SERIES

8H30-10H30 Room: Espace Jeanne Laurent 1

INVITED SESSION NEW DEVELOPMENTS IN CHANGE-POINT ANALYSIS

SESSION ORGANISER:
Holger Dette, *Department of Mathematics, Ruhr-Universitaet, Bochum, Germany*

SESSION CHAIR: **Holger Dette,** *Ruhr-Universitaet, Bochum*

INVITED SPEAKERS:
J. Aston, *The Statistical Laboratory, Univ. Cambridge, UK*

CHANGE POINT ANALYSIS IN NEUROIMAGING DATA

Piotr Fryzlewicz, *Dpt of Statistics, London School of Economics, UK*

TAIL-GREEDY BOTTOM-UP DATA DECOMPOSITIONS AND FAST MULTIPLE CHANGE-POINT DETECTION

C.Y. Yau, *Chinese Univ. of Hong-Kong, China*

BOOTSTRAP INFERENCE FOR MULTIPLE CHANGE-POINTS IN TIME SERIES

Z. Zhou, *Dpt of Statistics, Univ. of Toronto, Canada*

GRADIENT-BASED STRUCTURAL CHANGE DETECTION FOR NON-STATIONARY TIME SERIES M-ESTIMATION

8H30-10H30 Room: Cubiculaire

INVITED SESSION NEW DEVELOPMENTS OF STATISTICAL INFERENCE WITH APPLICATIONS TO FUSION LEARNING OF COMPLEX DATA

SESSION ORGANISER:
Minge Xie, *Rutgers Univ., USA*

SESSION CHAIR: **Regina Liu,** *Rutgers Univ.*

INVITED SPEAKERS:
Dongchu Sun, *Univ. of Missouri, USA*

PARTIALLY INFORMATIVE NORMAL AND BAYESIAN PARTIAL SPLINE

Minge Xie, *Rutgers University, USA*

NONPARAMETRIC META ANALYSIS WITH UNKNOWN STUDY-SPECIFIC PARAMETERS

Ying Hung, *Rutgers University, USA*

A SEQUENTIAL SPLIT-CONQUER-COMBINE APPROACH FOR THE ANALYSIS OF MASSIVE

SPATIAL DATA

Jan Hannig, *Univ. of North Carolina at Chapel Hill, USA*

GENERALIZED FIDUCIAL INFERENCE FOR NON-PARAMETRIC PROBLEMS

8H30-10H30 Room: La chambre du Trésorier

INVITED SESSION **NEW CHALLENGE IN STATISTICS**

SESSION ORGANISER:
Qihua Wang, *Academy of Mathematics and Systems Science, Chinese Academy of Sciences, China*

SESSION CHAIR: **Qihua Wang,** *Chinese Academy of Sciences*

INVITED SPEAKERS:
Weidong Liu, *Shanghai Jiao Tong Univ.*

STATISTICAL INFERENCE FOR MATRIX-VARIATE GAUSSIAN GRAPHICAL MODELS AND FALSE DISCOVERY RATE CONTROL

Changliang Zou, *Nankai Univ.*

A SCALABLE NONPARAMETRIC SPECIFICATION TESTING IN MASSIVE DATA

Xianshi Yu, *The Hong Kong Univ. of Science*

COMMUNITY DETECTION OF SPARSE NETWORKS

Qihua Wang, *Chinese Academy of Sciences*

SUFFICIENT DIMENSION REDUCTION UNDER DIMENSION REDUCTION BASED IMPUTATION WITH PREDICTORS MISSING AT RANDOM

8H30-10H30 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-4 HIGH DIMENSION/COMPLEX DATA**

SESSION CHAIR: **Eric Matzner-Lober,** *CEPE and Univ. Rennes II, France*

Liang Zhang, *Department of Statistics and Applied Probability, Singapore*

A SCALE-INVARIANT L2-NORM BASED TWO-SAMPLE TEST FOR HIGH-DIMENSIONAL DATA

Thomas Gueuning, *ORSTAT and Leuven Statistics Research Center, KU Leuven, Belgium*

THE FOCUSED INFORMATION CRITERION FOR HIGH-DIMENSIONAL DATA

Alice Carla Luisa Parodi, *Statistics Department, Pennsylvania State University, USA*

FLAME: A FUNCTIONAL LINEAR ADAPTIVE MIXED ESTIMATION FOR HIGH DIMENSIONAL FUNCTIONAL-ON-SCALAR REGRESSION

Joni Virta, *University of Turku, Finland*

INDEPENDENT COMPONENT ANALYSIS FOR TENSOR-VALUED DATA

Javier Tarrio, *Escuela Politécnica Superior, Universidade da Coruña, Spain*

POLYMER CREEP DEFORMATION ESTIMATES USING A FLEXIBLE APPROACH BASED ON TIME/TEMPERATURE SUPERPOSITION PRINCIPLE

Keith Knight, *University of Toronto, Canada*

ALGORITHMIC LEVERAGING AND ELEMENTAL ESTIMATION

8H30-10H30 Room: Espace Jeanne Laurent 2

CONTRIBUTED SESSION **CS-5 FUNCTIONAL DATA**

SESSION CHAIR: **Philippe Vieu,** *Univ. Toulouse*

Nicholas Tarabelloni, *Department of Mathematics, Politecnico di Milano, Italy*

A ROBUSTLY ADJUSTED BOXPLOT FOR FUNCTIONAL DATA

Dominik Liebl, *University of Bonn, Germany*
BANDWIDTH SELECTION FOR SMOOTHING SPARSE AND NON-SPARSE FUNCTIONAL DATA WITH COVARIATE ADJUSTMENTS

Tianming Zhu, *National University of Singapore*
PROBABILITIES OF MISCLASSIFICATION GIVEN BY A L2-NORM-BASED CLASSIFIER FOR FUNCTIONAL DATA

Mohamed Cherfi, *Faculté des Sciences, Université Hassiba Benbouali de Chlef, Algeria*
ESTIMATING THE CONDITIONAL ERROR DISTRIBUTION IN NON-PARAMETRIC REGRESSION FOR FUNCTIONAL DATA AND APPLICATIONS

Alessia Pini, *MOX - Department of Mathematics, Politecnico di Milano, Italy*
A NON-PARAMETRIC INFERENTIAL FRAMEWORK FOR DOMAIN SELECTION IN FUNCTIONAL DATA ANALYSIS

8H30-10H30 Room: Herses Notre-Dame

CONTRIBUTED SESSION **CS-14 DENSITY AND INTENSITY ESTIMATION**

SESSION CHAIR: **Vincent Rivoirard,** *Univ. Paris-Dauphine*

Håkon Otneim, *University of Bergen, Norway*
ESTIMATING MULTIVARIATE AND CONDITIONAL DENSITY FUNCTIONS USING LOCAL GAUSSIAN APPROXIMATIONS

Nathalie Akakpo, *UPMC, LPMA, UMR CNRS 7599, France*
MULTIVARIATE INTENSITY ESTIMATION VIA WAVELET MODEL SELECTION

Maria Dolores Martinez-Miranda, *University of Granada, Spain*
SCALE AND SPACE INFERENCE OF NONHOMOGENEOUS POISSON PROCESS INTENSITIES

Martin Kroll, *Universität Mannheim, Germany*
NONPARAMETRIC ESTIMATION OF THE INTENSITY FUNCTION FROM INDIRECT POISSON POINT PROCESS OBSERVATIONS

Shota Gugushvili, *Mathematical Institute, Leiden University, The Netherlands*
A NON-PARAMETRIC BAYESIAN APPROACH TO DECOMPOUNDING FROM HIGH FREQUENCY DATA

Vladimir Pastukhov, *Department of Mathematical Statistics, Lund, Sweden*
A STOCHASTIC PROCESS APPROACH TO MULTILAYER NEUTRON DETECTORS

10H30-11H00

COFFEE BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

11H00-13H00 Room: Cellier Benoit XII

INVITED SESSION **TESTS IN NONPARAMETRIC STATISTICS**

SESSION ORGANISER:
Vincent Rivoirard, *Univ. Paris-Dauphine, France*

SESSION CHAIR: **Vincent Rivoirard,** *Univ. Paris-Dauphine, Paris, France*

INVITED SPEAKERS:
Claire Lacour, *Dpt Mathématiques, Univ. Paris-Sud, Orsay, France*
GOODNESS-OF-FIT TEST FOR NOISY DIRECTIONAL DATA

Patricia Reynaud-Bouret, *Univ. de Nice Sophia-Antipolis*
CONTINUOUS TESTING FOR POISSON PROCESSES INTENSITIES

Laure Sansonnet, *Univ. Catholique de Louvain (UCL), Belgium*

DETECTION OF DEPENDENCE IN A MODEL OF POISSONIAN INTERACTIONS

Theofanis Sapatinas, *Dpt of Mathematics and Statistics, Univ. of Cyprus, Cyprus*

MINIMAX GOODNESS-OF-FIT TESTING IN ILL-POSED INVERSE PROBLEMS WITH PARTIALLY UNKNOWN OPERATORS

11H00-13H00 Room: Espace Jeanne Laurent 1

INVITED SESSION **EXTREME RISKS**

SESSION ORGANISER:
Marie Kratz, *ESSEC CREAR, France*

SESSION CHAIR: **Marie Kratz,** *ESSEC CREAR*

INVITED SPEAKERS:
Maud Thomas, *Chalmers Univ., Sweden*

CONCENTRATION RESULTS IN EXTREME VALUE THEORY

Philippe Soulier, *université Paris-Ouest, France*

THE TAIL EMPIRICAL PROCESS OF REGULARLY VARYING FUNCTIONS OF GEOMETRICALLY ERGODIC MARKOV CHAINS

Jürg Hüsler, *Bern Univ., Switzerland*

NONPARAMETRIC MODELS FOR EXTREME RISKS WITH URN MODELS

Marie Kratz, *ESSEC CREAR, Cergy, France*

ON RISK CONCENTRATION

11H00-13H00 Room: Conclave

INVITED SESSION **NONPARAMETRIC METHODS IN BIOSTATISTICS**

SESSION ORGANISER:
Somnath Datta, *Univ of Florida,*

SESSION CHAIR: **Somnath Datta,** *Univ of Florida*

INVITED SPEAKERS:
Anju Srivastava, *Florida State Univ., Tallahassee, USA*

GEOMETRIC FUNCTIONAL DATA ANALYSIS IN NEURON MORPHOLOGY

Susmita Datta, *Univ. of Florida, Gainesville, USA*

DIFFERENTIAL NETWORK ANALYSIS WITH MULTIPLY IMPUTED LIPIDOMIC DATA

Hannu Oja, *Univ. of Turku, Turku, Finland*

ESTIMATION OF FISHER LINEAR DISCRIMINATION SUBSPACE USING A PAIR OF SCATTER MATRICES

Debajyoti Sinha, *Florida State Univ., USA,*

SEMIPARAMETRIC BAYESIAN METHODS FOR SKEWED MULTIVARIATE RESPONSE

11H00-13H00 Room: Cubiculaire

INVITED SESSION **NEW ADVANCES IN THE ANALYSIS OF LIFETIME DATA**

SESSION ORGANISER:
Ronghui (Lily) Xu, *Dpt of Family Medicine and Public Health and Dpt of Mathematics, Univ. of California, San Diego, USA*

SESSION CHAIR: **Ronghui (Lily) Xu,** *Univ. of California, San Diego, USA*

INVITED SPEAKERS:
Yi Yu, *Cambridge Univ., UK*
CAPTURE THE NEGLECTED -- RECOVERY OF THE DEPENDENCE STRUCTURE IN DIRECTED AND DYNAMIC NETWORKS

Bin Nan, *Univ. of Michigan, USA*
ASYMPTOTIC DISTRIBUTIONAL THEORY OF WEIGHTED ESTIMATION FOR NESTED CASE-CONTROL DESIGN

Liqun Diao, *Univ. of Waterloo, USA*
DOUBLY ROBUST SURVIVAL TREES

Ronghui (Lily) Xu, *Univ. of California at San Diego, USA*
STATISTICAL CHALLENGES IN ANALYZING OBSERVATIONAL DATA ON PREGNANCY

11H00-13H00 Room: Chambre du Trésorier

INVITED SESSION **MODEL VALIDATION**

SESSION ORGANISER:
Simos G. Meintanis, *Univ. of Athens, Greece*

SESSION CHAIR: **Simos G. Meintanis,** *Univ. of Athens, Greece*

INVITED SPEAKERS:
Miguel A. Delgado, *Univ. Carlos III of Madrid, Spain*
NONPARAMETRIC TESTS FOR CONDITIONAL SYMMETRY

C. Francq, *CREST, France*
GOODNESS-OF-FIT TESTS FOR LOG-VOLATILITY GARCH MODELS

Gilles Stupfler, *Aix Marseille Univ., France*
ON THE WEAK CONVERGENCE OF THE KERNEL DENSITY ESTIMATOR IN FUNCTIONAL SPACES

Viktor Witkovsky, *Slovak Academy of Sciences, Slovaquia*
ON STATISTICAL INFERENCE BASED ON NUMERICAL INVERSION OF THE CF

11H00-13H00 Room: Espace Jeanne Laurent 2

INVITED SESSION **FUNCTIONAL DATA ANALYSIS PART I**

SESSION ORGANISER:
Philippe Vieu, *Univ. de Toulouse, France*

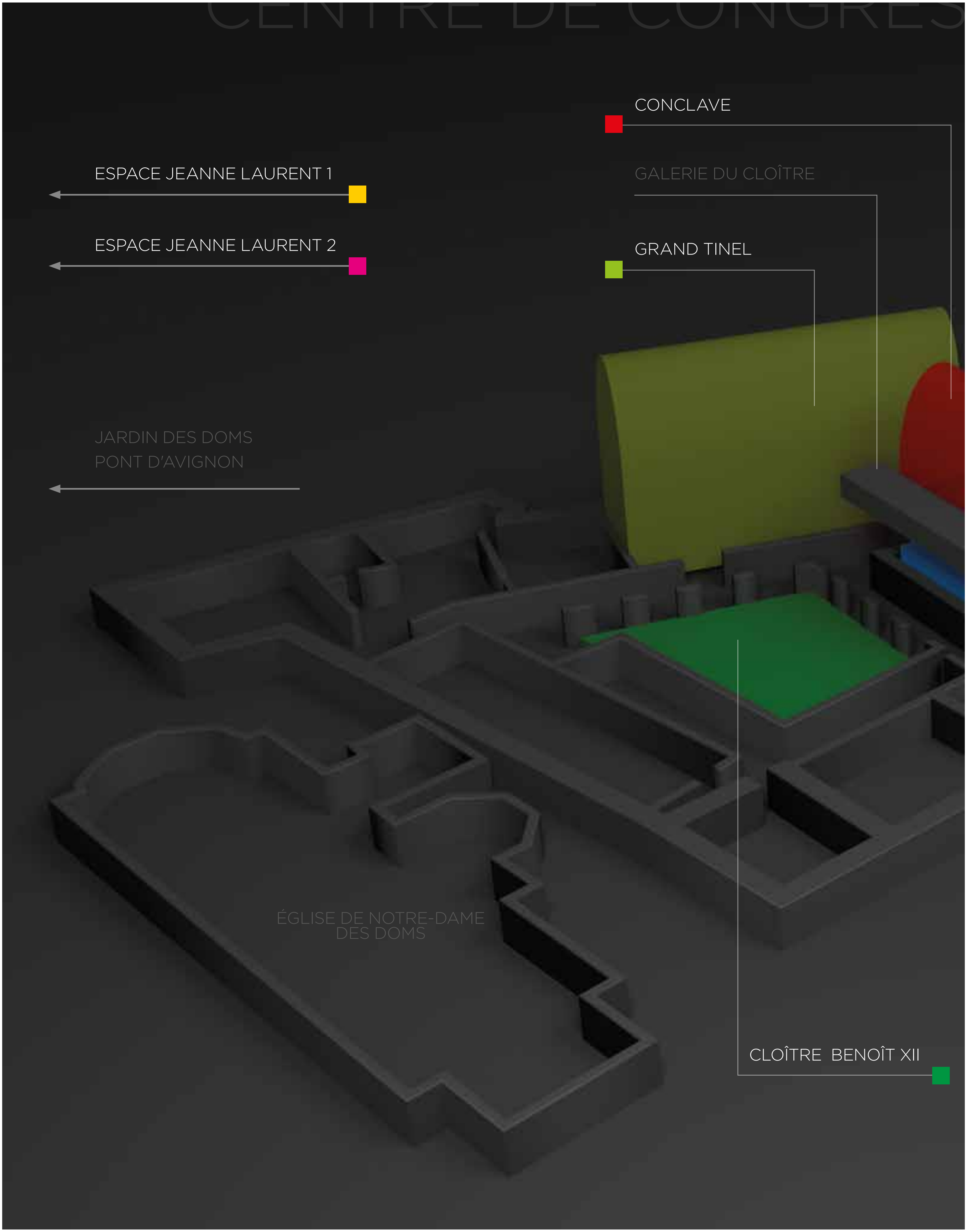
SESSION CHAIR: **Philippe Vieu,** *Univ. Toulouse*

INVITED SPEAKERS:
Beatriz Bueno, *Univ. Madrid, Spain*
A RKHS-BASED PROPOSAL FOR VARIABLE SELECTION IN FUNCTIONAL REGRESSION

Laurent Delsol, *Univ. d'Orléans, France*
NONPARAMETRIC CLUSTERING OF FUNCTIONAL SPATIALLY DEPENDENT DATA

Aldo Goia, *Univ. da Novara, Italy*
CLASSIFICATION METHODS FOR HILBERT DATA BASED ON SURROGATE DENSITY

André Mas, *Univ. de Montpellier, France*
EIGENVALUE-FREE RISK BOUNDS FOR FUNCTIONAL PCA PROJECTORS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CONCLAVE
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DES DOMS
CLOÎTRE BENOÎT XII

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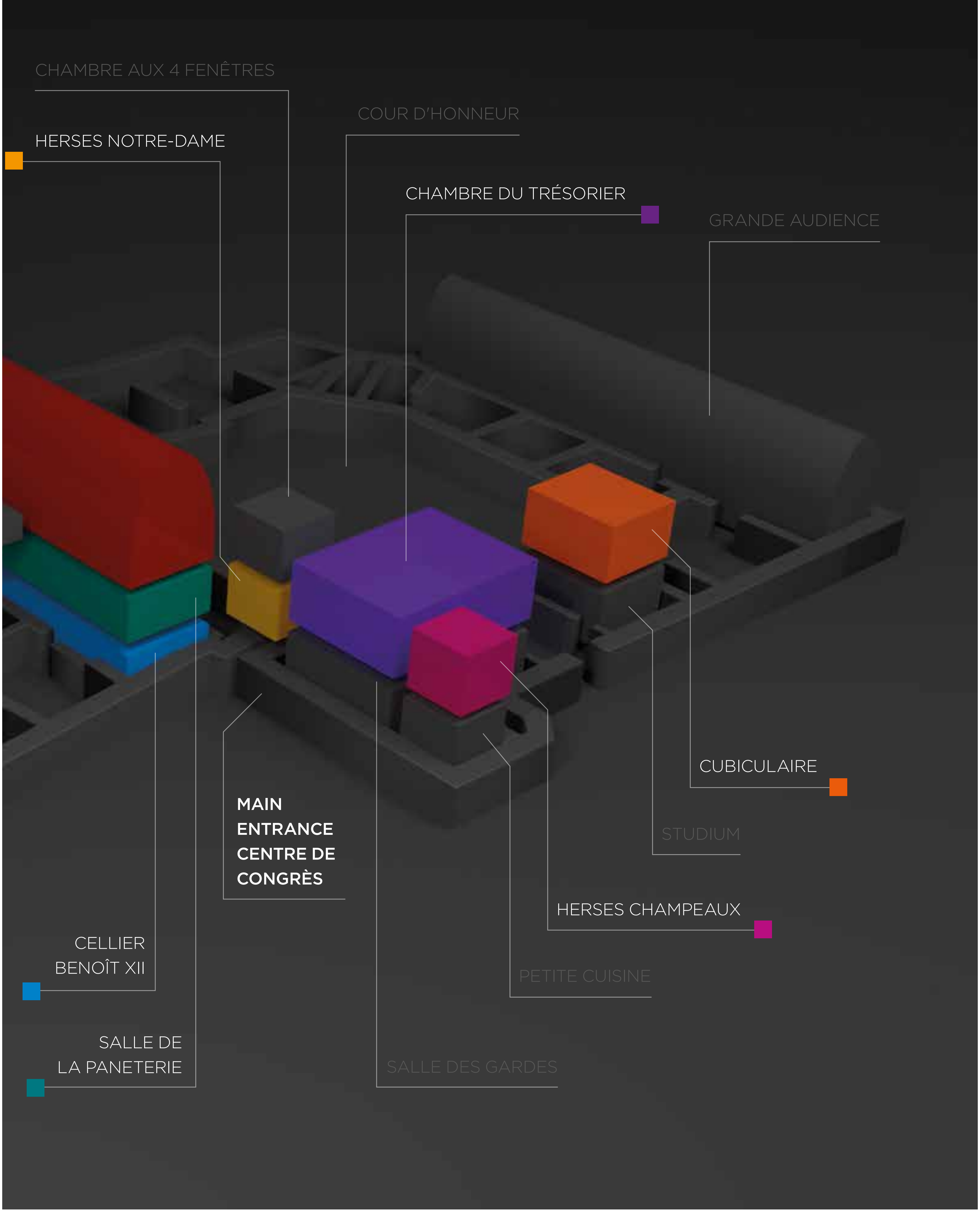

11H00-13H00 Room: Herse Notre-Dame

CONTRIBUTED SESSION **CS-12 CLASSIFICATION AND PREDICTION**

SESSION CHAIR: **Arnak Dalalyan,** *CREST, LS, INSEE, Paris*

Jan De Neve, *Department of Data Analysis, Ghent Univ., Belgium*

PROBABILISTIC INDEX MIXED MODELS FOR CLUSTERED DATA

Miles Lopes, *Department of Statistics, University of California Davis, USA*

MEASURING THE ALGORITHMIC CONVERGENCE OF RANDOM FORESTS VIA BOOTSTRAP EXTRAPOLATION

Jessica Gronsbell, *Harvard University, USA*

SEMI-SUPERVISED APPROACHES TO EFFICIENT EVALUATION OF MODEL PREDICTION PERFORMANCE

Marta Avalos, *INRIA, SISTM, Bordeaux, France*

A COMPARISON OF UNSUPERVISED CURVE CLASSIFICATION METHODS FOR SPORT TRAINING DATA

Thomas Kerdreux, *Ecole Polytechnique, Palaiseau, France*

ADMISSIBILITY OF K-NN TYPE SMOOTHERS

Jose Berrendero, *Universidad Autonoma de Madrid, Spain*

NEW PROPOSALS FOR MULTIDIRECTIONAL SUPERVISED CLASSIFICATION

11H-13H00 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-16 TESTING**

SESSION CHAIR: **Magalie Fromont-Renoir,** *Univ. Rennes II*

Arnold Janssen, *Math. Institute, Heinrich-Heine-University of Düsseldorf, Germany*

MARTINGALE APPROACH FOR MULTIPLE TESTING AND FDR CONTROL

Martina Mincheva, *Temple University, USA*

NONPARAMETRIC HYPOTHESIS TESTING OF THE HUMAN MICROBIOME USING EVOLUTIONARY TREES

Juan Carlos Pardo-Fernandez, *Departamento de Estatistica e Investigación Operativa, Universidade de Vigo, Spain*

ROBUST TESTING FOR SUPERIORITY BETWEEN TWO REGRESSION CURVES

Ester Mariucci, *IMAG, Université de Grenoble*

ASYMPTOTIC EQUIVALENCE FOR PURE JUMP L EVY PROCESSES WITH UNKNOWN L EVY DENSITY AND GAUSSIAN WHITE NOISE

13H00-14H15

LUNCH IN LA PANETERIE AND CLOÎTRE BENOIT XII
OR IN RESTAURANTS OUTSIDE THE PALACE OF THE POPES

PARRALLEL SESSIONS 14:15-16H45

14H15-16H15 Room: Conclave

INVITED SESSION **VARIABLE SELECTION FOR HIGH DIMENSIONAL NONPARAMETRIC REGRESSION**

SESSION ORGANISER:
Subhashis Ghoshal, *North Carolina State Univ., USA*

SESSION CHAIR: **Subhashis Ghoshal,** *North Carolina State Univ.*

INVITED SPEAKERS:
Yichao Wu, *North Carolina State Univ., USA*

VARIABLE SELECTION IN KERNEL REGRESSION USING MEASUREMENT ERROR SELECTION LIKELIHOODS

Johannes Schmidt-Hieber, *Leiden Univ., The Netherlands*

FREQUENTIST ANALYSIS OF THE POSTERIOR FOR HIGH-DIMENSIONAL MODELS

Hao Helen Zhang, *Univ. of Arizona, USA*

PROBABILITY-ENHANCED SUFFICIENT DIMENSION REDUCTION FOR BINARY CLASSIFICATION

Subhashis Ghoshal, *North Carolina State Univ., USA*

ORACLE CONVERGENCE RATES FOR BAYESIAN DENSITY REGRESSION IN HIGH DIMENSIONAL SPACES

14H15-16H15 Room: Espace Jeanne Laurent 1

INVITED SESSION **NONPARAMETRIC ESTIMATION AND TESTING OF HEAVY-TAILED DISTRIBUTIONS WITH APPLICATIONS**

SESSION ORGANISER:
Natalia Markovich, *Institute of Control Sciences of Russian Academy of Sciences, Moscow, Russia*

SESSION CHAIR: **Natalia Markovich,** *Russian Academy of Sciences*

INVITED SPEAKERS:
Natalia Markovich, *Institute of Control Sciences of Russian Academy of Sciences, Russia*

CLUSTERING OF EXTREMES IN LARGE-SCALE NETWORKS AND ITS NONPARAMETRIC ANALYSIS

Marijus Vaiciulis, *Vilnius Univ., Litvenia*

BLOCK MAXIMA BASED TAIL INDEX ESTIMATION

Liubov Markovich, *Moscow Institute of Physics and Technology State Univ., Institute of Control Sciences of Russian Academy of Sciences, Moscow, Russia*

LIGHT- AND HEAVY-TAILED DENSITY ESTIMATION BY GAMMA AND GAMMA-WEIBULL KERNELS

Joan del Castillo, *Univ. Autonoma de Barcelona, Spain*

THE DUALITY OF LIGHT-HEAVY TAILS

14H15-16H15 Room: Herses Notre-Dame

INVITED SESSION **ADAPTIVE METHODS IN NONPARAMETRIC STATISTICS**

SESSION ORGANISER:
V.A. Vasiliev, *Dpt of Applied Mathematics and Cybernetics, Tomsk State Univ., Russia.*

SESSION CHAIR: **V.A. Vasiliev,** *Tomsk State Univ.*

INVITED SPEAKERS:
V.A. Vasiliev, *Dpt of Applied Mathematics and Cybernetics, Tomsk State Univ., Russia*

PARAMETER ESTIMATION OF DISTRIBUTIONS WITH HEAVY TAILS

V.O. Vasilyev, *Moscow Institute of Physics and Technology (State University), Russia*

NONPARAMETRIC ESTIMATION OF MARKOV SWITCHING MODEL STATES UNDER ESSENTIAL UNCERTAINTIES

F.P. Tarassenko, *Dpt Management, Tomsk State Univ., Tomsk, Russia*

ON MAKING USE OF PRESUMED VALUES OF A LINEAR FUNCTIONAL IN ITS STATISTICAL ESTIMATION

G.M. Koshkin, *Dpt of Applied Mathematics and Cybernetics, Tomsk State Univ., Russia*

ON THE MEAN-SQUARE CONVERGENCE OF ESTIMATORS OF DISTRIBUTION FUNCTIONALS WITH USING ADDITIONAL INFORMATION

14H15-16H15 Room: Cellier Benoit XII

INVITED SESSION **STATISTICAL INVERSE PROBLEMS**

SESSION ORGANISER:
Axel Munk, *Fakultät für Mathematik und Informatik, Institut für Mathematische Stochastik, Goettingen, Germany*

SESSION CHAIR: **Katharina Proksch,** *Institute for Mathematical Stochastics of the University of Göttingen, Germany*

INVITED SPEAKERS:
Felix Abramovich, *Dpt of Statistics and Operation Research Tel Aviv Univ., Israel*

SOLUTION OF LINEAR INVERSE PROBLEMS USING EXPONENTIAL WEIGHTS

Aurore Delaigle, *School of Mathematics and Statistics, The Univ. of Melbourne Australia,*

NONPARAMETRIC COVARIATE-ADJUSTED REGRESSION

Claudia Koenig, *Dpt of Mathematics and Computer Science, Univ. Goettingen, Germany*

IMAGE RECONSTRUCTION FROM POISSON DATA

Markus Reiss, *Dpt of Mathematics, Humboldt Univ., Berlin, Germany*

OPTIMAL ADAPTATION FOR EARLY STOPPING IN STATISTICAL INVERSE PROBLEMS

14H15-16H15 Room: Chambre du Trésorier

INVITED SESSION **MODEL VALIDITY II**

SESSION ORGANISER:
Simos Meintanis, *University of Athens, Greece*

SESSION CHAIR: **Simos Meintanis,** *University of Athens*

INVITED SPEAKERS:
Thomas Verdebout, *ULB, Brussels, Belgium*

MAXIMIN TESTS FOR SYMMETRY OF CIRCULAR DATA BASED ON THE CHARACTERISTIC FUNCTION

James Allison, *Northwest University, South Africa*

TESTING THE ADQUACY OF SEMIPARAMETRIC TRANSFORMATION MODELS

Somnath Datta, *University of Florida, Gainesville, USA*

A RANK-SUM TEST FOR CLUSTERED DATA WHEN THE NUMBER OF SUBJECTS IN A GROUP WITHIN A CLUSTER IS INFORMATIVE

Simos Meintanis, *University of Athens, Greece*

FOURIER CRITERIA FOR MONITORING STRICT STATIONARITY

14H15-16H15 Room: Cubiculaire

INVITED SESSION **RECENT ADVANCES IN MEASUREMENT ERROR MODELS**

SESSION ORGANISER:
Hira Koul, *Dpt of Statistics and Probability, Michigan State Univ., USA*

SESSION CHAIR: **Hira Koul,** *Michigan State Univ.*

INVITED SPEAKERS:
Len Stefanski, *North Carolina State Univ., Raleigh, NC, USA*

MIXTURES, MEASUREMENT ERROR, AND MODEL SELECTION

Jana Jureckova, *Charles Univ., Prague, CZ*

RANK TESTS AND ESTIMATES IN MEASUREMENT ERROR MODELS

Weixing Song, *Kansas State Univ., USA*

NONLINEAR STATISTICAL INFERENCES WITH LAPLACE MEASUREMENT ERROR

Hajo Holzmann, *Philipps-Univ. Marburg, Germany*

CONFIDENCE BANDS FOR A NON-PARAMETRIC REGRESSION MODEL WITH BERKSON-TYPE ERRORS-IN-VARIABLES

14H15-16H15 Room: Espace Jeanne Laurent 2

INVITED SESSION **FUNCTIONAL DATA ANALYSIS PART II**

SESSION ORGANISER:
Philippe Vieu, *Univ. de Toulouse, France*

SESSION CHAIR: **Philippe Vieu,** *Univ. Toulouse*

INVITED SPEAKERS:
Jean-Baptiste Aubin, *Univ. Lyon, France*

TESTING OPTIMAL DIMENSION FOR SUITABLE HILBERT VALUED PROCESSES

Stéphane Girard, *Univ. de Grenoble, France*

ESTIMATION OF THE FUNCTIONAL WEIBULL TAIL-COEFFICIENT

Paulo Oliveira, *Univ. Coimbra, Portugal*

REPRESENTATIONS FOR THE MSE IN KERNEL REGRESSION ESTIMATION

Paula Raña, *Univ. da Coruña, Spain*

BOOTSTRAP CONFIDENCE INTERVALS IN FUNCTIONAL NONPARAMETRIC REGRESSION UNDER DEPENDENCE

14H15-16H15 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-9 NONPARAMETRIC STATISTICS**

SESSION CHAIR: **Eric Matzner-Lober,** *CEPE, Paris and Univ. Rennes II, Rennes*

Rachael Quill, *School Mathematical Science, UNSW Canberra, Australia*

AN EVALUATION OF KOLMOGOROV-SMIRNOV STYLE STATISTICS FOR BIVARIATE CIRCULAR DATA

Zbigniew Szkutnik, *AGH University of Science and Technology, Kraków, Poland*

ASYMPTOTIC CONFIDENCE BANDS IN THE WICKSELL'S PROBLEM

Lars Bohlin, *School of Business Society and Engineering, Mälardalen University, Sweden*

ANALYSING RANKINGS WITH THE SIGN TEST, USING P-VALUES CONDITIONAL ON THE RANK ORDER OF THE SAMPLE

Jan Kalina, *Institute of Computer Science of the Academy of Sciences, Czech Republic*

ON THE LOCALLY MOST POWERFUL SEQUENTIAL RANK TESTS

Fadoua Balabdaoui, *CEREMADE, Universite Paris-Dauphine, France*

MAXIMUM LIKELIHOOD ESTIMATION OF A UNIMODAL PROBABILITY MASS FUNCTION

Saddam Akber Abbasi, *Dept.Of Mathematics and Statistics, King Fahd University of Petroleum and Minerals, Dhahran, KSA*

NONPARAMETERIC EWMA SIGN CONTROL CHART WITH ESTIMATED PARAMETERS

16H15-16H45

COFFEE BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

16H45-18H45 Room: Conclave

INVITED SESSION **STATISTICS FOR HIGH DIMENSIONAL DATA**

SESSION ORGANISER:
S.N. Lahiri, *North Carolina State University*

SESSION CHAIR: **S.N. Lahiri,** *North Carolina State University*

INVITED SPEAKERS:
Richard Lockhart, *Simon Fraser University, Canada*

CONTIGUITY IN HIGH DIMENSIONS

Karl Gregory, *University of Mannheim, Germany*

OPTIMAL INFERENCE IN THE SPARSE ADDITIVE MODEL

Sandipan Roy, *University College London, UK*

A NONPARAMETRIC APPROACH TO CHANGE-POINT DETECTION IN DYNAMIC NETWORK

Soumendra N. Lahiri, *N.C. State University*

NECESSARY AND SUFFICIENT CONDITIONS FOR VARIABLE SELECTION CONSISTENCY OF THE LASSO IN HIGH DIMENSIONS

16H45-18H45 Room: Cellier Benoit XII

INVITED SESSION **NONPARAMETRIC TIME SERIES ANALYSIS**

SESSION ORGANISER:
Dimitris Politis, *Univ. of California San Diego, USA*

SESSION CHAIR: **Dimitris Politis,** *Univ. of California San Diego*

INVITED SPEAKERS:
Giovanni Motta, *Columbia Univ., USA*

LOCAL POLYNOMIALS FOR TIME-VARYING CORRELATIONS: ADAPTIVITY VERSUS POSITIVITY

Tim McMurry, *Univ. of Virginia, USA*

IMPROVING THE LINEAR PROCESS BOOTSTRAP THROUGH BETTER AUTOCOVARIANCE MATRIX ESTIMATION

Marco Meyer, *Tech Univ. of Braunschweig, Germany*

EMPIRICAL CHARACTERISTIC FUNCTION-BASED INFERENCE FOR LOCALLY STATIONARY PROCESSES

Dimitris Politis, *Univ. of California San Diego, USA*

MODEL-FREE PREDICTION FOR STATIONARY AND NONSTATIONARY TIME SERIES

16H45-18H45 Room: Cubiculaire

INVITED SESSION **NON STANDARD RATES FOR DENSITY ESTIMATION**

SESSION ORGANISER:
Ursula U. Mueller, *Texas A&M Univ., USA and* **Valentin Patilea**, *Ensai, Rennes, France*

SESSION CHAIR: **Ursula U. Mueller,** *Texas A&M Univ*

INVITED SPEAKERS:
Fabienne Comte, *Univ. Paris Descartes, Paris, France*

LAGUERRE ESTIMATION FOR K-MONOTONE DENSITIES OBSERVED WITH NOISE

Natalie Neumeyer, *Univ. Hamburg, Germany*

NONPARAMETRIC BOUNDARY REGRESSION

Lionel Truquet, *ENSAI, Rennes, France*

ROOT$-N$ CONSISTENT ESTIMATION OF THE MARGINAL DENSITY OF SOME STATIONARY TIME SERIES

16H45-18H45 Room: La Chambre du Trésorier

INVITED SESSION **NONPARAMETRIC LIKELIHOODS FOR COMPLEX DATA**

SESSION ORGANISER:
Daniel Nordman, *Iowa State Univ., USA*

SESSION CHAIR: **Ulricke Genschel,** *Iowa state, USA.*

INVITED SPEAKERS:
Soutir Bandyopadhyay, *Dpt of Mathematics, Lehigh Univ., USA*

A GENERAL FREQUENCY DOMAIN METHOD FOR ASSESSING SPATIAL COVARIANCE STRUCTURE

Wen (Rick) Zhou, *Dpt of Statistics Colorado State Univ., USA*

COMPARING LARGE COVARIANCE MATRICES UNDER WEAK CONDITIONS ON THE DEPENDENCE STRUCTURE AND ITS APPLICATION TO GENE CLUSTERING

Ulricke Genschel, *Iowa state, USA*

MEDIAN-BASED NONPARAMETRIC CONFIDENCE REGIONS FOR THE CENTRAL ORIENTATION OF RANDOM ROTATIONS

Daniel Nordman, *Dpt of Statistics, Iowa State Univ., USA*

A SMOOTHED BOOTSTRAP METHOD FOR TIME SERIES QUANTILE REGRESSION

16H45-18H45 Room: Espace Jeanne Laurent 2

INVITED SESSION **NONPARAMETRIC METHODS WITH APPLICATIONS IN HEALTH**

SESSION ORGANISER:
Layla Parast, *RAND Corporation, USA*

SESSION CHAIR: **Layla Parast,** *RAND*

INVITED SPEAKERS:
Edward Kennedy, *Univ. of Pennsylvania, Dpt of BioStatistics & Epidemiology*

NONPARAMETRIC METHODS FOR DOUBLY ROBUST ESTIMATION OF CONTINUOUS TREATMENT EFFECTS

Stefan Michaels, *INSERM, Gustave Roussy, Paris*

IDENTIFYING GENE SIGNATURES IN RANDOMIZED CONTROLLED TRIALS FOR TREATMENT OUTCOME USING COX REGRESSION

Tianxi Cai, *Harvard Univ., USA*

EFFICIENT USE OF EMR FOR DISCOVERY RESEARCH

Layla Parast, *RAND Corporation, USA*

USING SURROGATE MARKER INFORMATION TO TEST FOR A TREATMENT EFFECT

16H45-18H45 Room: Espace Jeanne Laurent 1

INVITED SESSION **HEAVY TAILED TIME SERIES**

SESSION ORGANISER:
Olivier Wintenberger, *Dpt of Mathematics, Univ. of Copenhaguen, Denmark*

SESSION CHAIR: **Olivier Wintenberger,** *Univ. of Copenhaguen*

INVITED SPEAKERS:
Bojan Basrak, *Zagreb Univ., Zagreb, Croatia*

ON RECORDS AND RECORD TIMES OF STATIONARY HEAVY TAILED SEQUENCES

Yuwei Zhao, *Université Catholique de Louvain, Belgium*

RADIAL-ANGULAR DECOMPOSITION OF REGULARLY VARYING TIME SERIES

Kirstin Storkorb, *Mannheim Univ., Mannheim, Germany*

TAIL CHAINS FOR ASYMPTOTICALLY INDEPENDENT MARKOV CHAINS

Anja Janssen, *Copenhagen Univ., Copenhagen, Denmark*

APPLICATIONS OF THE MULTIVARIATE TAIL PROCESS FOR EXTREMAL INFERENCE

16H45-18H45 Room: Herses Notre-Dame

INVITED SESSION **SEQUENTIAL NONPARAMETRICS**

SESSION ORGANISER:
Marie Huskova, *Charles Univ. Prague, Czech Republic*

SESSION CHAIR: **Marie Huskova,** *Charles Univ. Prague*

INVITED SPEAKERS:
Daniel Vogel, *Univ. of Aberdeen, UK*

THE SPATIAL SIGN COVARIANCE MATRIX

Zuzana Praskova, *Charles Univ. Prague, Czech Republic*

CHANGE POINT DETECTION IN MULTIVARIATE AUTOREGRESSION

Daniela Jaruskova, *Technical Univ. Prague, Czech Republic*

DETECTING NON-SIMULTANEOUS CHANGES

Marie Huskova, *Charles Univ. Prague, Czech Republic*

CHANGE POINT DETECTION WITH MULTIVARIATE OBSERVATIONS BASED ON CHARACTERISTIC FUNCTIONS

16H45-18H45 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-17 BAYESIAN STATISTICS**

SESSION CHAIR: **Edith Gabriel,** *Univ. d'Avignon*

Xueou Wang, *National University of Singapore*

VARIATIONAL APPROXIMATION USING HISTORY MATCHING IN HORSESHOE+ PRIOR CHOICE AND OUTLIER DECTECTION IN SPARSE SIGNAL REGRESSION

Catia Scricciolo, *Department of Economics, University of Verona, Italy*

BAYESIAN NONPARAMETRIC INFERENCE FOR THE QUANTILE FUNCTION

Mai The Tien, *CREST, ENSAE, University Paris Saclay, France*

BAYESIAN MATRIX COMPLETION UNDER GENERAL SAMPLING DISTRIBUTION

A. Gribinski, *Ecole Polytechnique, Palaiseau, France*

NONPARAMETRIC ESTIMATION OF THE BASIC REPRODUCTIVE FUNCTION FOR SIR EPIDEMIC MODELS

Mingan Yang, *Graduate School of Public Health, San Diego State University, USA*

BAYESIAN VARIABLE SELECTION FOR MIXED EFFECT MODELS WITH NONIGNORABLE DROPOUT

Yanyun Zhao, *School of Business, Zhongnan University of Economics and Law, China*

ALTERNATIVES FOR GHOSAL-GHOSH-VAART PRIORS

19H0-20H30

ISNPS COUNCIL COMMITTEE MEETING

TUESDAY THE 14TH OF JUNE

8H30-9H30 Room: Conclave

PLENARY SESSION

SESSION CHAIR: **Soumendra Lahiri,** *North Carolina State University*

Art Owen, *Department of Statistics, Stanford University,*

PERMUTATION P-VALUE APPROXIMATION VIA GENERALIZED STOLARSKY INVARIANCE

9H30-10H30 Room: Conclave

SPECIAL INVITED SESSION (SEMI-PLENARY)

SESSION CHAIR : **Valentin Patilea,** *CREST-ENSAI, Rennes*

Regina Liu, *Department of Statistics and BioStatistics, Rutgers University, USA*

STATISTICAL FUSION LEARNING: COMBINING INFERENCES FROM MULTIPLE SOURCES FOR MORE POWERFUL FINDINGS

9H30-10H30 Room: Cellier Benoit XII

SPECIAL INVITED SESSION (SEMI-PLENARY)

SESSION CHAIR: **Eric Matzner-Lober,** *CEPE and Univ. Rennes II, France*

Gerard Biau, *Univ. Pierre et Marie Curie, Paris, France*

NEURAL RANDOM FORESTS

10H30-11H00

COFFEE BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

11H00-13H00

PARALLEL SESSIONS

11H00-13H00 Room: Conclave

INVITED SESSION **INFERENCE IN HIGH AND INFINITE DIMENSIONAL PROBLEMS UNDER SPARSITY AND SHAPE CONSTRAINTS**

SESSION ORGANISER:
Arniban DasGupta, *Purdue Univ., USA*

SESSION CHAIR: **Arniban DasGupta,** *Purdue Univ*

INVITED SPEAKERS:
Marianna Pensky, *Univ. of Central Florida, USA*

ORACLE INEQUALITIES FOR TIME-DEPENDENT NETWORK MODELS

Dominique Picard, *Univ. Pierre et Marie Curie, Paris, France*
BAYES ADAPTIVE PROCEDURES ASSOCIATED WITH OPERATORS

Sucharita Ghosh, *Swiss Federal Research Institute WSL, Switzerland*
ON KERNEL SMOOTHING WITH GAUSSIAN SUBORDINATED SPATIAL DATA

Gaelle Chagny, *Univ. Rouen, France*
ADAPTIVE ESTIMATION OF A CONDITIONAL DISTRIBUTION GIVEN A FUNCTIONAL COVARIATE

11H00-13H00 Room: Cellier Benoit XII

INVITED SESSION **LOCALLY STATIONARY PROCESSES**

SESSION ORGANISER:
Rainer Dahlhaus, *Heidelberg Univ., Germany*

SESSION CHAIR: **Rainer Dahlhaus,** *Heidelberg Univ*

INVITED SPEAKERS:
Holger Dette, *Dpt Mathematics, Ruhr-Univ., Bochum, Germany*
DETECTING LONG-RANGE DEPENDENCE IN NON-STATIONARY TIME SERIES

Michael Eichler, *Maastricht Univ., Netherlands*
DATA-ADAPTIVE ESTIMATION OF TIME-VARYING SPECTRAL DENSITIES

François Roueff, *Telecom Paris-Tech, Paris, France*
LOCALLY STATIONARY HAWKES PROCESSES

Stefan Richter, *Heidelberg University, Germany*
LOCAL BANDWIDTH SELECTION VIA CONTRAST MINIMIZATION FOR LOCALLY STATIONARY PROCESSES

11H00-13H00 Room: Chambre du Trésorier

INVITED SESSION **ADAPTIVE INFERENCE IN SPARSE MODELS**

SESSION ORGANISER:
Marianna Pensky, *UCF Mathematics, Univ. of Central Florida, USA*

SESSION CHAIR: **Marianna Pensky,** *Univ. of Central Florida*

INVITED SPEAKERS:
Arnak Dalalyan, *CREST-GENES, Paris, France*
OPTIMAL ROBUST ESTIMATION OF THE PRECISION MATRIX BASED ON ROW SPARSITY

Olga Klopp, *MODAL'X, Univ. Paris-Ouest and CREST-GENES, Paris, France*
ORACLE INEQUALITIES FOR NETWORK MODELS AND SPARSE GRAPHON ESTIMATION

Oleg Lepsky, *Univ. Aix-Marseille, Marseille, France*
SOME NEW IDEAS IN NONPARAMETRIC ESTIMATION

Alexander Tsybakov, *CREST-GENES, Paris, France*
SHARP MINIMAX AND ADAPTIVE VARIABLE SELECTION

11H00-13H00 Room: Cubiculaire

INVITED SESSION **SHAPE CONSTRAINED INFERENCE**

SESSION ORGANISER:
Cécile Durot, *Univ. Paris-Ouest, France*

SESSION CHAIR: **Cécile Durot,** *Univ. Paris-Ouest, France*

INVITED SPEAKERS:
Dragi Anevski, *Lund Univ., Sweden*
ESTIMATING UNDER ORDER RESTRICTIONS ON TWO DIMENSIONS

Moulinath Banerjee, *Univ. Michigan, USA*

SAMPLE-SPLITTING IN NON-STANDARD PROBLEMS AND THE SUPEREFFICIENCY PHENOMENON

Hendrik P. Lopuhaä, *Delft Univ., Netherlands*

NONPARAMETRIC ESTIMATION OF THE BASELINE DISTRIBUTION IN THE COX MODEL UNDER MONOTONICITY CONSTRAINTS

Richard Samworth, *Univ. of Cambridge, UK*

EFFICIENT MULTIVARIATE ENTROPY ESTIMATION WITH APPLICATIONS TO TESTING SHAPE CONSTRAINTS

11H00-13H00 Room: Herses Notre-Dame

INVITED SESSION **RECENT ADVANCES IN FINANCIAL TIME SERIES**

SESSION ORGANISER:
Jean-Michel Zakoian, *CREST-GENES, Paris*

SESSION CHAIR: **Jean-Michel Zakoian,** *CREST-GENES*

INVITED SPEAKERS:
Genaro Sucarrat, *BI Norwegian Business School, Oslo*

AN EQUATION-BY-EQUATION ESTIMATOR OF A MULTIVARIATE LOG-GARCH-X MODEL OF FINANCIAL RETURNS

Yaxing Yang, *Hong-Kong univ. of Science and Technology*

SELF-WEIGHTED LAD-BASED INFERENCE FOR HEAVY-TAILED THRESHOLD AUTOREGRESSIVE MODELS

Liudas Giraitis, *Queen May, Univ. of London*

TESTING MEAN STABILITY OF HETEROSKEDASTIC TIME SERIES

Jean Michel Zakoian, *CREST-GENES, Paris*

JOINT INFERENCE ON MARKET AND ESTIMATION RISKS IN DYNAMIC PORTFOLIOS

11H00-13H00 Room: Herses Champeaux

INVITED SESSION **OBJECT ORIENTED DATA ANALYSIS: TREE STRUCTURED DATA OBJECTS**

SESSION ORGANISER:
Steve Marron, *Univ. of North Carolina, USA*

SESSION CHAIR: **Vic Patrangenaru,** *Dpt of Statistics, Florida State Univ.*

INVITED SPEAKERS:
Aasa Feragen, *Copenhagen Univ., Denmark,*

COMPARING ORDERED TREES: CURRENT STATUS AND OPEN QUESTIONS

Tom Nye, *Newcastle Univ., UK,*

PRINCIPAL COMPONENTS ANALYSIS AND MINIMAL SURFACES IN TREE-SPACE

Megan Owen, *City Univ. New York, USA,*

CONVEX HULLS IN TREE SPACE

13H0-14H00

LUNCH IN LA PANETERIE AND CLOÎTRE BENOIT XII
OR IN RESTAURANTS OUTSIDE THE PALACE OF THE POPES

14H00

FREE AFTERNOON AND SOCIAL PROGRAM (EXCURSIONS)

WEDNESDAY THE 15TH OF JUNE

8H30-10H30

PARALLEL SESSIONS

8H30-10H30 Room: Conclave

INVITED SESSION **CHANGE-POINTS IN HIGH DIMENSIONS**

SESSION ORGANISER:
Jens-Peter Kreiss, *TU Braunschweig, Institut für Mathematische Stochastik, Braunschweig, Germany*

SESSION CHAIR: **Jens-Peter Kreiss,** *TU Braunschweig*

INVITED SPEAKERS:
Hao Chen, *Univ. of California at Davis, USA*

CHANGE-POINT DETECTION FOR LOCALLY DEPENDENT DATA

Haeran Cho, *Univ. of Bristol, UK*

SIMULTANEOUS CHANGE-POINT AND FACTOR ANALYSIS FOR HIGH-DIMENSIONAL TIME SERIES

Moritz Jirak, *Humboldt Univ. Berlin, Germany*

UNIFORM CHANGE POINT TESTS IN HIGH DIMENSION

Han Xiao, *Rutgers Univ., USA*

LEAD LAG RELATIONSHIP AMONG HIGH DIMENSIONAL TIME SERIES

8H30-10H30 Room: Cellier Benoit XII

INVITED SESSION **NONPARAMETRIC INFERENCE IN HIGH DIMENSION**

SESSION ORGANISER:
Marc Hallin, *European Centre for Advanced Research in Economics and Statistics, Univ. libre de Bruxelles, Belgium*

SESSION CHAIR: **Gérard Biau,** *Univ UPMC, Paris*

INVITED SPEAKERS:
Edgar Dobriban, *Stanford Univ, USA*

OPTIMAL DETECTION OF WEAK PRINCIPAL COMPONENTS IN HIGH-DIMENSIONAL DATA

Davy Paindaveine, *Univ. libre de Bruxelles, Belgium*

TESTING UNIFORMITY ON HIGH-DIMENSIONAL SPHERES AGAINST SYMMETRIC AND ASYMMETRIC SPIKED ALTERNATIVES

Thomas Verdebout, *Univ. Libre de Bruxelles, Belgium*

ON SOME HIGH-DIMENSIONAL TESTS FOR PRINCIPAL COMPONENT ANALYSIS.

Tengyao Wang, *Univ. Cambridge, UK*

STATISTICAL AND COMPUTATIONAL TRADEOFFS IN ESTIMATION OF SPARSE PRINCIPAL COMPONENTS

8H30-10H30 Room: Cubiculaire

INVITED SESSION **TOPICS IN NONSMOOTH INFERENCE**

SESSION ORGANISER:
Moulinath Banerjee, *Univ. of Michigan, USA*

SESSION CHAIR: **Moulinath Banerjee,** *Univ. of Michigan*

INVITED SPEAKERS:
Sumanta Basu, *Univ. California, Berkeley, USA*

NETWORK MODELLING OF HIGH-DIMENSIONAL TIME SERIES WITH APPLICATIONS TO SYSTEM-WIDE RISK MONITORING

Cécile Durot, *Univ. Paris, Nanterre, France*

MONOTONE SINGLE INDEX MODEL

Geurt Jongbloed, *Delft Univ. Technology, Netherlands*

ESTIMATING A MONOTONE DENSITY AT ZERO

George Michalidis, *Univ. Florida, Gainesville, USA*

INTELLIGENT SAMPLING FROM LARGE DATABASES

8H30-10H30 Room: Chambre du Trésorier

INVITED SESSION **FUNCTIONAL TIME SERIES**

SESSION ORGANISER:
Efstathios Paparoditis, *Dpt of Mathematics and Statistics, Univ. of Cyprus, Cyprus*

SESSION CHAIR: **Efstathios Paparoditis,** *Univ. of Cyprus*

INVITED SPEAKERS:
Alexander Aue, *Univ. of California, Davis, USA*

DATING STRUCTURAL BREAKS IN FUNCTIONAL DATA WITHOUT DIMENSION REDUCTION

Siegfried Hoermann, *Free Univ. Brussels, Belgium*

DETECTION OF PERIODICITY IN FUNCTIONAL TIME SERIES

Matthew Reimers, *Penn State Univ., USA*

TESTING SEPARABILITY OF FUNCTIONAL TIME SERIES

Efstathios Paparoditis, *Univ. of Cyprus, Cyprus*

SIEVE BOOTSTRAP FOR FUNCTIONAL TIME SERIES

8H30-10H30 Room: Herses Notre-Dame

INVITED SESSION **STATISTICS FOR BIG DATA**

SESSION ORGANISER:
Ricardo Cao, *Department of Mathematics, Univ. da Coruña, Spain*

SESSION CHAIR: **Ricardo Cao,** *Univ. da Coruña*

INVITED SPEAKERS:
Boaz Nadler, *Weizmann Institute of Science, Rehobot, Israel*

ON THE OPTIMALITY OF AVERAGING IN DISTRIBUTED LEARNING

Melanie Zetlaoui, *Univ. Paris-Ouest-Nanterre-La Défense, France*

SCALING BY SUBSAMPLING FOR BIG DATA

Antoine Rebecq, *INSEE, Paris, France*

EXTENSION SAMPLING DESIGNS FOR BIG NETWORKS - APPLICATION TO TWITTER

Ricardo Cao, *Universidade da Coruña, Spain*

NONPARAMETRIC INFERENCE FOR BIG-BUT-BIASED DATA

8H30-10H30 Room: Herses Champeaux

INVITED SESSION **VARIOUS TOPICS IN NON-PARAMETRIC STATISTICS**

SESSION ORGANISER:
Anton Schick, *Binghamton university, GB*

SESSION CHAIR: **Patrice Bertail,** *Université Paris-Ouest, Nanterre*

INVITED SPEAKERS:
Ian McKeague, *Columbia Univ., USA*

STEIN'S METHOD AND CONVERGENCE OF EMPIRICAL DISTRIBUTIONS IN AN INTERPRETATION OF QUANTUM MECHANICS

Ursula Mueller, *Texas A&M, USA,*

EFFICIENCY TRANSFER FOR REGRESSION MODELS WITH MISSING RESPONSES

Wolfgang Wefelmeyer, *Univ. Cologne, Germany*

ESTIMATORS FOR MARKOV CHAINS WITH MISSING OBSERVATIONS

10H30-11H00

COFFEE BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

11H00-13H00 Room: Conclave

PETER G. HALL MEMORIAL SESSION

CHAIRS: **Michael Akritas,** *Penn State Univ., USA* & **Dimitris Politis,** *Univ. of California San Diego, USA*

11H00-11H30

PETER HALL'S CONTRIBUTION TO NONPARAMETRIC STATISTICS

Aurore Delaigle, *Univ. Melbourne, Australia:*

PETER HALL'S CONTRIBUTION TO STATISTICS - I

Soumendra Lahiri, *NC State Univ., USA*

PETER HALL'S CONTRIBUTION TO STATISTICS - II

11H30-12H30 Room: Conclave

PETER HALL LECTURE

Peter J. Bickel, *University of California, Berkeley, USA*

THE BOOTSTRAP IN SOME NOVEL ENVIRONMENTS

12H30-13H00

CEREMONY OF ISNPS AWARDS DEDICATED
TO THE MEMORY OF PETER G. HALL

13H0-14H15

LUNCH IN LA PANETERIE AND CLOÎTRE BENOIT XII
OR IN RESTAURANTS OUTSIDE THE PALACE OF THE POPES

14H15-16H15 Room: Conclave

INVITED SESSION **STATISTICS FOR HIGH-DIMENSIONAL AND INFINITE-DIMENSIONAL DATA**

SESSION ORGANISER:
Subhajit Dutta, *Dpt of Mathematics and Statistics, IIT Kanpur*

SESSION CHAIR: **Subhajit Dutta,** *IIT Kanpur*

INVITED SPEAKERS:
Anil K. Ghosh, *ISI Kolkata, India*

SOME EXACT DISTRIBUTION-FREE ONE SAMPLE TESTS FOR HIGH DIMENSION, LOW SAMPLE SIZE DATA

Anirvan Chakraborty, *EPFL, Switzerland*

HYBRID REGULARIZATION OF FUNCTIONAL LINEAR MODELS

Antonio Cuevas, *Univ. Autónoma de Madrid, Spain*

ESTIMATING THE BOUNDARY MEASURE OF A SET IN THE EUCLIDEAN SPACE

Subhajit Dutta, *IIT Kanpur, India*

ON PERFECT CLASSIFICATION FOR GAUSSIAN PROCESSES

14H15-16H15 Room: Cellier Benoit XII

INVITED SESSION **OBJECT DATA ANALYSIS AND THEIR APPLICATIONS**

SESSION ORGANISER:
Vic Patrangenaru, *Dpt of Statistics, Florida State Univ., USA*

SESSION CHAIR: **Vic Patrangenaru,** *Florida State University*

INVITED SPEAKERS:
Vic Patrangenaru, *Florida State University, USA*

BRAND NEW LOCATION PARAMETERS ON COMPACT METRIC SPACES

Stephan Huckeman, *Univ. of Goettingen, Germany*

STICKY CENTRAL LIMIT THEOREMS FOR THE HYPERBOLIC ICE CREAM CONE

John Kent, *Univ. of Leeds, United Kingdom*

MODELS AND STATISTICS FOR PROJECTIVE SHAPE ANALYSIS

Laurent Younes, *Johns Hopkins University, Baltimore USA,*

CHANGE POINT ESTIMATION OF BRAIN SHAPE DATA IN RELATION WITH ALZHEIMER'S DISEASE.

14H15-16H15 Room: Chambre du Trésorier

INVITED SESSION **SEMIPARAMETRIC INFERENCE**

SESSION ORGANISER:
Antoine Chambaz, *MODAL'X, Univ. Paris-Ouest, France, session sponsored by ANR SPADRO*

SESSION CHAIR: **Antoine Chambaz,** *MODAL'X, Univ. Paris-Ouest*

INVITED SPEAKERS:
Emilien Joly, *Univ. Paris Ouest, Nanterre, France*

TARGETED LEARNING WITH BIG DATA

Alex Luedtke, *Univ. California, Berkeley, USA*

ADAPTIVE SAMPLING FOR SUBGROUP ANALYSES

Wenjing Zheng, *Center for AIDS Prevention Studies, Univ. California, San Francisco, USA*

SEMIPARAMETRIC INFERENCE IN A COVARIATE-ADJUSTED RESPONSE-ADAPTIVE RCT WITH DATA-ADAPTIVE ESTIMATION

Antoine Chambaz, *Univ., Paris Ouest Nanterre, France*

CONFIDENCE INTERVALS FOR CONTEXTUAL BANDITS

14H15-16H15 Room: Herses Notre-Dame

INVITED SESSION **NONPARAMETRIC INSTRUMENTAL VARIABLES AND RELATED TOPICS**

SESSION ORGANISER:
Jeffrey Racine, *Department of Economics McMaster Univ., Canada*

SESSION CHAIR: **Jeffrey Racine,** *McMaster Univ.*

INVITED SPEAKERS:
Christoph Breunig, *Dpt Economics, university of Berlin, Germany*

REGRESSION WITH SELECTIVELY MISSING COVARIATES

Samuele Centorrino, *Dpt Economics, Stony Brook Univ., USA*

NONPARAMETRIC INSTRUMENTAL VARIABLE ESTIMATION OF ADDITIVE MODELS WITH MULTIPLE ENDOGENOUS AND EXOGENOUS COMPONENTS

Carlos Martins-Filho, *Dpt Economics, Univ. of Colorado, Boulder, USA*

EFFICIENT ESTIMATION OF PARTIALLY LINEAR MODELS UNDER NONPARAMETRIC ENDOGENEITY

Daniel Wilhelm, *Dpt Economics, Univ. College London, UK*

NONPARAMETRIC INSTRUMENTAL VARIABLE ESTIMATION UNDER MONOTONICITY

14H15-16H15 Room: Cubiculaire

INVITED SESSION **MULTI-STATE MODELS AND COMPETING RISKS**

SESSION ORGANISER:
Ingrid Van Keilegom, *Louvain Univ, Belgium*

SESSION CHAIR: **Ingrid Van Keilegom,** *Louvain Univ.*

INVITED SPEAKERS:
Samuel Maistre, *Univ. Catholique de Louvain, Belgium*

SPLINE BACKFITTED KERNEL ESTIMATION OF AN ADDITIVE MODEL FOR CENSORED DATA.

Candida Geerdens, *Hasselt Univ., Belgium*

A NONPARAMETRIC COPULA APPROACH FOR CLUSTERED RIGHT-CENSORED EVENT TIME DATA

Jacobo de Uva Alvarez, *Univ. do Vigo, Spain*

NONPARAMETRIC ESTIMATION OF A TRANSITION PROBABILITY MATRIX FROM LEFT-TRUNCATED AND RIGHT-CENSORED DATA

Jan Beyersmann, *Univ. Ulm, Germany*

NONPARAMETRIC ESTIMATION OF PREGNANCY OUTCOME PROBABILITIES USING A STABILIZED AALEN-JOHANSEN ESTIMATOR

14H15-16H15 Room: Herses Champeaux

INVITED SESSION **RANDOM PROCESSES AND STATISTICS**

SESSION ORGANISER:
Valérie Girardin, *Univ. Caen Normandie, France*

SESSION CHAIR: **Valérie Girardin,** *Univ. Caen*

INVITED SPEAKERS:
Gabriela Ciuperca, *Laboratoire Camille Jordan, Université Claude Bernard Lyon-I, France*

NONPARAMETRIC METHODS FOR CHANGE-POINT DETECTION IN PARAMETRIC MODELS

Robert Elliott, *Univ. of Calgary, Alberta, Canada*
HIDDEN MARKOV CHAIN CHANGE POINT ESTIMATION

Rachid Senoussi, *INRA Avignon, France*
PARAMETER ESTIMATION OF MULTITYPE BRANCHING PROCESSES USING PROBABILITY GENERATING FUNCTIONS

Philippe Regnault, *Univ. Reims, France*
CLOSED FORM EXPRESSIONS FOR RESCALED ENTROPY RATES OF MARKOV CHAINS

16H15-16H45

BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

16H45-17H45 Room: Conclave

PLENARY SESSION

SESSION CHAIR: **Eric Matzner-Lober,** *CEPE and Uni. Rennes II, France*

Sara van de Geer, *Department of Mathematics, ETH Zürich, Zwitzerland*

CONCENTRATION IN LEARNING

17H45-18H45 Room: Conclave

SPECIAL INVITED SESSION (SEMI-PLENARY)

SESSION CHAIR: **Delphine Blanke,** *Univ. Avignon*

Wolfgang Polonik, *Department of Statistics, University of California at Davis, USA*

GEOMETRIC FEATURE EXTRACTION

17H45-18H45 Room: Cellier Benoit XII

SPECIAL INVITED SESSION (SEMI PLENARY)

SESSION CHAIR: **Olivier Wintenberger,** *Univ. Copenhagen, Denmark.*

Anders Rahbek, *Department of Economics, University of Copenhagen, Denmark*

BOOTSTRAP: NONSTATIONARITY AND COINTEGRATION

19H00 Meeting point : La Paneterie

GALA DINNER IN LE GRAND TINEL

THURSDAY THE 16TH OF JUNE

8H30-10H30

PARALLEL CONTRIBUTED SESSIONS

8H30-10H30 Room: Conclave

CONTRIBUTED SESSION **CS-1 ECONOMETRICS**

CHAIR: **Jean Pierre Florens,** *TSE, Univ. Toulouse, France*

Andrii Babii, *Toulouse School of Economics, France*

IDENTIFICATION AND ESTIMATION IN THE FUNCTIONAL LINEAR INSTRUMENTAL REGRESSION

Eric Gautier, *Toulouse School of Economics, France*

RANDOM COEFFICIENTS WITH BOUNDED REGRESSORS

Michal Pesta, *Charles University in Prague, Czech Republic*

CONDITIONAL LEAST SQUARES AND COPULAE FOR PANEL DATA

Joachim Schnurbus, *University of Passau, Germany*

CATCHING-UP, LEAPFROGGING, AND FALLING-BACK IN ECONOMIC GROWTH — A NONPARAMETRIC APPROACH

Hyunsook Lee, *Korea Institute of S&T Evaluaton and Planning, Korea*

NONPARAMETRIC DATA ANALYSIS FOR THE MARKET SIZE PREDICTION TO ESTIMATE R&D BENEFITS

Henry Laniado, *School of Mines, Universidad Nacional de Colombia, Medellín, Colombia*

ON A ROBUST AND NONPARAMETRIC ESTIMATION OF THE COVARIANCE MATRIX IN THE PORTFOLIO SELECTION PROBLEM

8H30-10H30 Room: Cellier Benoit XII

CONTRIBUTED SESSION **CS-2 PERMUTATION/ RESAMPLING**

SESSION CHAIR: **Patrice Bertail,** *Université Paris-Ouest, Nanterre*

María Isabel Borrajo García, *University of Santiago de Compostela, Spain*

BOOTSTRAPPING KERNEL DENSITY ESTIMATORS FOR LENGTH BIASED DATA

Jonas Krampe, *TU Braunschweig, Germany*

MOVING AVERAGE SIEVE BOOTSTRAP

Ines Barbeito, *Faculty of Computer Science, Universidade da Coruña, Spain*

SMOOTHED STATIONARY BOOTSTRAP BANDWIDTH SELECTION FOR DENSITY ESTIMATION WITH DEPENDENT DATA

Fortunato Pesarin, *Department of Statistical Sciences, University of Padova, Italy*

NONPARAMETRIC UNION-INTERSECTION APPROACH IN MULTIVARIATE PERMUTATION TESTS

Olivier Renaud, *Dept. Of Psychology, University of Geneva, Switzerland*

COMPARISON OF PERMUTATION METHODS IN PRESENCE OF NUISANCE VARIABLES

Kellie Ottoboni, *Department of Statistics, UC Berkeley, USA*

PERMUTE: A PYTHON PACKAGE FOR RANDOMIZATION INFERENCE

8H30-10H30 Room: Chambre du Trésorier

CONTRIBUTED SESSION **CS-7 NONPARAMETRICS FOR DEPENDENT DATA**

CHAIR: **Philippe Soulier,** *University Paris-Ouest-Nanterre-La Défense*

Irène Gannaz, *Institut Camille Jordan, Universite de Lyon, France*

WAVELET WHITTLE ESTIMATION IN MULTIVARIATE TIME SERIES MODELS

Mélisande Albert, *Gipsa-lab, University Grenoble Alpes, France*

SEPARATION RATES FOR NON-PARAMETRIC INDEPENDENCE TESTS BASED ON WAVELET DECOMPOSITION AND PERMUTATION

Lars Arne Jordanger, *University of Bergen, Norway*

NONLINEAR SPECTRAL ANALYSIS VIA THE LOCAL GAUSSIAN CORRELATION

Poornima Unnikrishnan, *Indian Institute of Technology, Bombay, India*

ON THE SELECTION OF WINDOW LENGTH IN SINGULAR SPECTRUM ANALYSIS OF A TIME SERIES

Mohamed Chaouch, *Department of Statistics, United Arab Emirates University*

ON ROBBINS-MONRO TYPE CONDITIONAL VARIANCE ESTIMATION WITH FUNCTIONAL ERGODIC DATA

Clément Cerovecki, *Department of Mathematics, Université Libre de Bruxelles, Belgium.*

A NOTE ON THE CLT FOR THE DISCRETE FOURIER TRANSFORMS OF FUNCTIONAL TIME SERIES

8H30-10H30 Room: Cubiculaire

CONTRIBUTED SESSION **CS-8 LOCALLY STATIONARY TIME SERIES/ CHANGEPOINTS**

SESSION CHAIR: **François Roueff,** *TelecomParisTech, Paris*

Anne van Delft, *Maastricht University, Belgium*

LOCALLY STATIONARY FUNCTIONAL TIME SERIES

Pilar Poncella, *Universidad de Alcala, Spain*

AUTOMATIC SIGNAL EXTRACTION FOR STATIONARY AND NON-STATIONARY TIME SERIES BY CIRCULANT SSA

Michael Scholz, *Department of Economics, University of Graz, Austria*

A LOCAL-POLYNOMIAL CHOW-TYPE TEST

Frederick Kin Hing Phoa, *Institute of Statistical Science, Academia Sinica, China*

AN EFFICIENT ANALYSIS OF CHANGE POINTS VIA SWARM INTELLIGENCE

8H30-10H30 Room: Herses Notre-Dame

CONTRIBUTED SESSION **CS-6 REGRESSION MODELS/ MODEL SELECTION**

SESSION CHAIR: **Mélanie Zetlaoui,** *Université Paris-Ouest, Nanterre*

Miroslav Siman, *The Institute of Information Theory and Automation of the Czech Academy of Sciences, Czech Republic*

ADVANCES IN QUANTILE REGRESSION FOR VECTOR RESPONSES

Xin Geng, *IFPRI, Washington, USA*

ESTIMATION OF A PARTIALLY LINEAR REGRESSION IN TRIANGULAR SYSTEMS

Frank Eriksson, *Dept of Public Health, University of Copenhagen, Denmark*

ASYMPTOTIC THEORY FOR FREQUENTIST MULTIPLE IMPUTATION FOR COX REGRESSION WITH MISSING COVARIATE DATA

Ali Charkhi, *ORStat and Leuven Statistics Research Center, KU Leuven, Belgium.*

ASYMPTOTIC AIC POST-SELECTION CONFIDENCE INTERVALS

Adriano Zambom, *Loyola University Chicago, USA*

LAG SELECTION AND MODEL VALIDATION IN NONPARAMETRIC AUTOREGRESSIVE CONDITIONAL HETEROSCEDASTIC MODELS

Mousa Golalizadeh, *Dept of Statistics, Tarbiat Modares University, Tehran, Iran*

NONPARAMETRIC REGRESSION TO MODEL SHAPE VARIABILITY USING SPHERICAL COORDINATES

8H30-10H30 Room: Herses Champeaux

CONTRIBUTED SESSION **CS-18 LONG-RANGE DATA/SIGNAL**

SESSION CHAIR: **Antoine Chambaz,** *Université Paris-Ouest, Nanterre*

Sarah Friedrich, *Ulm University, Institute of Statistics, Germany*

PERMUTING LONGITUDINAL DATA DESPITE ALL THE DEPENDENCIES

Pramita Bagchi, *University of Michigan, USA*

INFERENCE FOR MONOTONE FUNCTIONS UNDER SHORT AND LONG RANGE DEPENDENCE

Germain Van Bever, *MCT Faculty, The Open University, Milton Keynes, UK*

JOINT DIAGONALISATION OF SCATTER OPERATORS: HILBERTIAN FOURTH ORDER BLIND IDENTIFICATION AND OTHER APPLICATIONS

Mikael Kuusela, *Ecole Polytechnique Federale de Lausanne, Switzerland*

SHAPE-CONSTRAINED UNCERTAINTY QUANTIFICATION IN UNFOLDING ELEMENTARY PARTICLE SPECTRA AT THE LARGE HADRON COLLIDER

Jan Beran, *University of Konstanz, Germany*

ON TESTING FOR HERMITE RANK IN GAUSSIAN SUBORDINATION SERIES

10H30-11H00

COFFEE BREAK IN LA PANETERIE AND CLOÎTRE BENOIT XII

11H00-13H00

PARALLEL SESSIONS

11H00-13H00 Room: Conclave

INVITED SESSION **FUNCTIONAL DATA ANALYSIS AND RELATED PROBLEMS**

SESSION ORGANISER:
Aurore Delaigle, *School of Mathematics and Statistics, Univ. of Melbourne, Australia*

SESSION CHAIR: **Aurore Delaigle,** *Univ. of Melbourne*

INVITED SPEAKERS:
Victor Panaretos, *Ecole Polytechnique Fédérale de Lausanne, Switzerland*

SMOOTH PLUS ROUGH FUNCTIONAL PRINCIPAL COMPONENTS

Naisyin Wang, *Michigan Univ., USA*

UTILIZING LATENT FEATURES IN CLUSTERED FUNCTIONAL DATA

Katharina Proksch, *Institute of Statistics, Ruhr Univ., Bochum, Germany*

MULTISCALE SCANNING IN INVERSE PROBLEMS - WITH APPLICATIONS.

Gery Geenens, *Univ. of New South Wales, Australia,*

DEPTH-BASED NONPARAMETRIC TESTS FOR HOMOGENEITY OF FUNCTIONAL DATA

11H00-13H00 Room: Cellier Benoit XII

INVITED SESSION **RECENT DEVELOPMENT IN SEMIPARAMETRIC METHODS FOR COMPLEX DATA**

SESSION ORGANISER:
Rui Song, *Univ. of North Carolina State, USA*

SESSION CHAIR: **Antoine Chambaz,** *Univ. Paris-Ouest, France*

INVITED SPEAKERS:
Ingrid Van Keilegom, *Univ. catholique de Louvain, Belgium*

WILKS' PHENOMENON IN TWO-STEP SEMIPARAMETRIC EMPIRICAL LIKELIHOOD INFERENCE

Yanyuan Ma, *Univ. South Carolina, USA*

FUNCTIONAL SINGLE INDEX MODEL

Jennifer Sinnot, *Statistics Department, The Ohio State Univ. USA*

KERNEL MACHINE SCORE TEST FOR PATHWAY ANALYSIS IN THE PRESENCE OF SEMI-COMPETING RISKS

Stéphane Guerrier, *Univ. Illinois at Urbana-Champaign, USA*

SIMULATION BASED BIAS CORRECTION METHODS FOR COMPLEX MODELS

11H00-13H00 Room: Cubiculaire

INVITED SESSION **STRUCTURAL ECONOMETRICS**

SESSION ORGANISER:
Eric Gautier, *Toulouse School of Economics, Toulouse, France*

SESSION CHAIR: **Eric Gautier,** *TSE, Toulouse*

INVITED SPEAKERS:
Anna Simoni, *CREST, Paris, France*

SEMIPARAMETRIC BAYESIAN ESTIMATION AND COMPARISON OF MOMENT CONDITION MODELS

Jean-Pierre Florens, *Toulouse School of Economics, Toulouse, France*

CONVOLUTION MODELS ON NETWORKS

Chris Rose, *Toulouse School of Economics, Toulouse, France*

INFERENCE ON SOCIAL EFFECTS WHEN THE NETWORK IS SPARSE AND UNKNOWN

Valentin Patilea, *ENSAI, Rennes, France*

A SIMPLE AND PRACTICAL APPROACH TOWARDS TESTING GLOBAL RESTRICTIONS ON GENERAL FUNCTIONS

11H00-13H00 Room: Chambre du Trésorier

INVITED SESSION **NON-PARAMETRIC METHODS IN ECONOMETRICS**

SESSION ORGANISER:
Tassos Magdalinos, *Univ. Southampton, USA*

SESSION CHAIR: **Tassos Magdalinos,** *Univ. Southampton*

INVITED SPEAKERS:
Yuichi Kitamura, *Univ. Yale, USA*

ESTIMATING CONDITIONAL MOMENT RESTRICTION MODELS UNDER MEASUREMENT ERROR WITH UNKNOWN DISTRIBUTION

Xiaohong Chen, *Univ. Yale, USA*

STATISTICAL INFERENCE FOR MATRIX-VARIATE GAUSSIAN GRAPHICAL MODELS AND FALSE DISCOVERY RATE CONTROL

Ioannis Kasparis, *Univ. Cyprus, Cyprus*

SMOOTH INSTRUMENTAL VARIABLES: UNIFYING INFERENCE WHEN THE

Tassos Magdalinos, *Univ. Southampton, USA*

IMPROVED NONPARAMETRIC LONG RUN VARIANCE ESTIMATION IN STOCHASTIC

11H00-13H Room: Herses Notre-Dame

INVITED SESSION **RESAMPLING TECHNIQUES FOR NONSTATIONARY DATA STRUCTURES**

SESSION ORGANISER:
Jacek Leśkow, *Kracow Univ. of Technology, Poland*

SESSION CHAIR: **Jacek Leskow,** *Kracow Univ. of Technology*

INVITED SPEAKERS:
Jacek Leśkow, *Institute of Mathematics, Cracow Technical Univ., Poland*
RESAMPLING TECHNIQUES FOR NONSTATIONARY TIME SERIES

Elżbieta Gajecka, *Nowy Sacz Professional College, Poland*
INFERENCE AND RESAMPLING FOR NON-STATIONARY, LONG MEMORY AND HEAVY TAILS TIME SERIES

Gabriela Ciolek, *Univ. Paris-Ouest et AGH Univ., Poland*
BOOTSTRAP UNIFORM CENTRAL LIMIT THEOREMS FOR HARRIS RECURRENT MARKOV CHAINS

Jürgen Franke, *Technische Universität Kaiserslautern. Germany*
ON THE RESIDUAL-BASED BOOTSTRAP FOR FUNCTIONAL AUTOREGRESSIONS

11H00-13H00 Room: Herses Champeaux

INVITED SESSION **REDUCING AND MODELLING COMPLEX DATA**

SESSION ORGANISER:
Francesca Chiaromonte, *Penn State Univ., USA*

SESSION CHAIR: **Francesca Chiaromonte,** *Penn State Univ*

INVITED SPEAKERS:
Piercesare Secchi, *Politecnico di Milano, Milan, Italy*
BAGGING RANDOM DOMAIN TESSELLATIONS FOR OBJECT ORIENTED SPATIAL STATISTICS

Giovanni Felici, *Consiglio Nazionale delle Ricerche, Rome, Italy*
OPTIMIZATION-DRIVEN SUPERVISED DIMENSION REDUCTION

Efstathia Bura, *George Washington Univ., Washington DC, USA*
SUFFICIENT REDUCTIONS IN REGRESSION AND CLASSIFICATION WITH EXPONENTIAL FAMILY PREDICTORS

Francesca Chiaromonte, *The Pennsylvania State Univ., USA,*
STRUCTURED SUFFICIENT DIMENSION REDUCTION AND ITS APPLICATIONS

13H00-14H15

LUNCH IN LA PANETERIE AND CLOÎTRE BENOIT XII
OR IN RESTAURANTS OUTSIDE THE PALACE OF THE POPES

14H15-15H15 Room: Conclave

PLENARY SESSION

SESSION CHAIR: **Patrice Bertail,** *Université Paris-Ouest-Nanterre-La Défense, France*

Stéphane Mallat, *ENS Paris et Académie des Sciences, Paris, France*

HIGH DIMENSIONAL LEARNING AND DEEP NEURAL NETWORKS

15H15

END OF THE CONFERENCE AND LAST MEETING OF THE ISNPS COMMITTEES

AVIGNON:
HOW TO GET THERE - HOW TO LEAVE

Avignon is in the heart of Provence at the intersection of 3 French regions: Provence-Alpes-Côte d'Azur, Languedoc-Roussillon and Rhône-Alpes.

Airport

The city is located in the south of France, 50 miles from Marseille Airport, but also easily reachable from Lyon (55min from Lyon Saint-Exupery Airport by direct high speed trains, TGV) or from Paris (2h40 by TGV, connected with flights).

Avignon has also its own airport (with a few flights from United-Kingdom and Ireland as well as other European countries, during the summer).

See the Avignon Conference center website for full information on how to get there.
www.avignon-congres.com

Train

The main train Station: AVIGNON CENTRE is just outside the walls of Avignon but very close to the main Hotels in Avignon (5 to 10 min by feet). The TGV Station and the airport are 3kms from the center, which can be easily reached by regular navette or the local train LA VIRGULE (4min, 35 times a day) at any time of the day: we will organize the transfer from these places on Saturday afternoon in case of special needs.

Taxis

Taxis are available at the exit and may be reserved on request on our website. For your departure ask us in case of special needs.

Parking

For those, who will arrive by car or rent a car during their stay, the Palace of the Popes has a private Car Park, right in the center of the city, with privileged rates for participants of the conference. It is difficult to park in the center, because Avignon has many narrow pedestrian streets. Please let us know if you wish to park your car in the Palace Car Park, Rue Ferruce 84000 Avignon.

A Map of Avignon is included in your bag.

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