TIES 2015 25th Conference of The International Environmetrics Society at United Arab Emirates University Al Ain

Time	Saturday Nov 21	Sunday Nov 22	Monday Nov 23	Tuesday Nov 24	Wednesday Nov 25
9:00 / 9:15	Registration	Registration	3-speaker session **Student Papers 2** E1-1027 / 3-speaker session **Naumova** E1-1028	President's Invited Lecture **Daniela Cocchi** Auditorium	Keynote speaker **Louise Ryan** Auditorium
9:30 / 9:45	**ARCH/GARCH** E1-1027 / **EXTREMES** E1-1028	**Opening Ceremony** - Auditorium			
10:00 / 10:15				2-speaker session **Spat Temp** Auditorium / 2-speaker session **Esterby** E1-1028	3-speaker session **Ahmed** E1-1028 / 3-speaker session **Fateh** E1-1027
10:30 / 10:45		COFFEE	COFFEE and POSTERS		
11:00 / 11:15	COFFEE	Hunter Lecture **Peter Diggle** Auditorium	4-speaker session **GRASPA Cocchi/Fasso** E1-1028 / 4-speaker session **Hussein** E1-1027	COFFEE	
11:30 / 11:45	**ARCH/GARCH** E1-1027 / **EXTREMES** E1-1028			3-speaker session **El-Shaarawi Env Econ** E1-1027 / 3-speaker session **Posa/Fasso** E1-1028 / 3-speaker session **Spat-Temp Geostat** Auditorium	COFFEE
12:00 / 12:15 / 12:30 / 12:45		Panel discussion: **Water Issues in the Arab Region** - Auditorium			3-speaker session **El-Shaarawi Risk and WQ** E1-1027 / 3-speaker session **Jandhyala** E1-1028
13:00 / 13:15 / 13:30 / 13:45	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
14:00 / 14:15		**EXTREMES** E1-1028 / 4-speaker session **Zhang** Auditorium / 4-speaker session **Horova** E1-1027 / 4-speaker session **Lyubchich** E1-1028	3-speaker session **Genton** E1-1028 / 3-speaker session **Ramirez** E1-1027	**TOUR** departs	
14:30 / 14:45 / 15:00 / 15:15					3-speaker session **Angulo** E1-1028 / 3-speaker session **ExtremesRisk** E1-1027
15:30 / 15:45		COFFEE	COFFEE		
16:00 / 16:15		COFFEE	Keynote speaker **Håvard Rue** Auditorium		Closing Ceremmony
16:30 / 16:45	**EXTREMES** E1-1028	3-speaker session **Student Papers 1** E1-1027 / 3-speaker session **Meth. Environ. Appl.** E1-1028 / 3-speaker session **Gel** Auditorium			
17:00–18:00			**Annual General Meeting** (1hr) Auditorium		
18:15 / 18:30 / 18:45			6:00 depart for **Banquet**		

25th Conference of The International Environmetrics Society

November 21 - 25, 2015
United Arab Emirates University
Al-Ain, United Arab Emirates

Saturday- November 21

9:00- Registration

9:30 -11:00 Short Courses

1. Analysis of Extremes with Environmental Applications   Room E1-1027
   Instructor: Professor Hao Zhang, Purdue University

2. ARCH/GARCH and Their Extensions for Modeling Financial   Room E1-1028
   Environmental Time Series
   Instructor: Professor Yulia R. Gel, University of Texas at Dallas, USA

11:00 - 11:30   Coffee

11:30 -13:00 Short Courses

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13:00 - 14:00   Lunch

14:00-15:30

Analysis of Extremes with Environmental Applications   Room E1-1027
   Instructor: Professor Hao Zhang, Purdue University

15:30 - 16:00   Coffee

Analysis of Extremes with Environmental Applications   Room E1-1027
   Instructor: Professor Hao Zhang, Purdue University

9:00- Registration

9:30-10:15 Opening Ceremony   Room G020-Auditorium (Male)

Chair: Ali Soliman Gargoum, TIES2015 Co-chair
    The United Arab Emirates University, UAEU
    Dean Geralyn Franklin, College of Business and Economics, CBE
    Ahmed AlShaiba khamis AlSheryani, Executive Director, Strategy and Excellence Sector
      Statistics Centre Abu Dhabi (SCAD), Abu Dhabi
    Abdelhameed El-Shaarawi, TIES Founding President
    Ron Smith, President of TIES
    Tribute to the founder of the Department of Statistics, UAEU

10:15 - 10:45   **Coffee**

10:45-11:45 J. Stuart Hunter Lecture   Room G020-Auditorium (Male)
    Chair: Abdelhameed El-Shaarawi, Cairo University
    River Blindness, Eyeworm and a Geostatistical Calibration Problem
    Peter J Diggle,University of Lancaster

11:45-13:00 Panel Discussion: Water Issues in the Arab Region   Room G020-Auditorium (Male)
    Organizer: ***Abdelhameed El-Shaarawi***; *Cairo University, Egypt and NWRI, Canada*
    Chair: ***Sylvia R Esterby***; *University of British Columbia Okanagan, Canada*
    Panelists:
    Zeinelabidin E. Rizk, Ajman University of Science and Technology, UAE
    Ruwaya Alkendi, Biology Department, United Arab Emirates University, Al Ain
    Chebana Fateh, Institut National de la Recherche Scientifique, Canada
    Ali A. Soliman, Chairman of the United Nations Association of International Civil Servants, Egypt
    Abdelhameed El-Shaarawi, Cairo University, Egypt and National Water Research Institute, Canada

13:00 - 14:00   **Lunch**

14:00-16:00 Invited Session   **Room G020-Auditorium (Male)**
    Making Good Use of Spatial Correlation
    Organizer and Chair: *Hao Zhang; Purdue University*

14:00 ***Joe Guinness***; *North Carolina State University:*
    Circulant Embedding of Approximate Covariances for Inference from Gaussaian Data on Large Lattices

14:30 ***Holly Wang***; *Purdue University:*
    A Study of Spatial Correlation of Crop Insurance

15:00 ***Husam El Alqamy***; *Environmental Information Science and Outreach Management Environment Agency Abu Dhabi:*
    Quantitative approach to Habitat Mapping of Abu Dhabi: Statistics and estimates

15:30 ***Hao Zhang***; *Purdue University:*
    Modeling Teleconnection

14:00-16:00 Invited Session   **Room E1-1027**
    Statistical Analysis in Environmental Studies
    Organizer and Chair: *Ivana Horová; Masaryk University, Czech Republic*

14:00   **Zuzana HÜBNEROVÁ**, *Lucie HAMPELOVÁ, Ray CORRELL, Riku KOSKELA; Brno University of Technology, Czech Republic, University of Defence in Brno, Czech Republic, Rho Environmetrics, Australia and 4Koskela Group, Australia:*
Modelling crab burrow counts

14:30 **Lucia Paci**, *Alan E. Gelfand, Mara Asuncon Beamonte, Marcos Rodrigues, Fernando Prez-Cabello;University of Bologna, Italy, Department of Statistical Science, Duke University, USA, Facultad de Economa y Empresa, Universidad de Zaragoza, Spain:*
Space-time modeling for post-fire vegetation recovery

15:00 **Tania M. ALARCON**, *Alexandra V. KULINKINA, Venkata Raghava MOHAN, Mark R. FRANCIS, Deepthi KATTULA, Rajiv SARKAR, Honorine WARD, Gagandeep KANG, Vinohar BALRAJ, Elena N. NAUMOVA: Department of Civil and Environmental Engineering, Tufts University, USA, Department of Community Health, Christian Medical College, India, Division of Gastrointestinal Sciences, Christian Medical College, India,Department of Geographic Medicine, Tufts Medical Center, USA, Friedman School of Nutrition Science and Policy, Tufts University, USA:*
Tap-to-household water quality deterioration: analysis of spatial and temporal uncertainties.

15:30 **Elena N. NAUMOVA**;*Friedman School of Nutrition Science and Policy, Tufts University, USA and School of Engineering, Tufts University, USA*
Precision Mapping: A novel tool for understanding spatial and temporal uncertainties inlarge-scale environmental health investigations

14:00-16:00 Invited Session   **Room E1-1028**
    Recent advances in environmental time series modeling
    Organizer and Chair: *Vyacheslav Lyubchich, University of Maryland Center for Environmental Science, USA*

14:00 *Victor GUERRERO[1], Alejandro ISLAS CAMARGO[1], Lilia Leticia RAMIREZ RAMIREZ[1,2]:[1] Instituto Tecnologico Autonomo de Mexico (ITAM), Mexico,[2] Centro de Investigacion en Matematicas (CIMAT), Mexico:*
Multivariate time series trend estimation based on controlled smoothing

14:30 **Nawal Al Mehairbi and Abdulla Salem Rashed Al Eissaee** ; *Directorate of Statistics Sector, Statistics Centre Abu Dhabi (SCAD) Abu Dhabi, United Arab Emirates :*
Environment Statistics role to build Greenhouse Gas indicators in the Emirate of Abu Dhabi

15:00 **Elmira ALIAKBARI**, *Ross MCKITRICK; University of Guelph, Canada*
Impacts of pipeline uncertainty on the market value of Canadian energy firms

15:30 *Vyacheslav LYUBCHICH[1],* **Yulia R. GEL**[2]*;[1] University of Maryland Center for Environmental Science, USA;[2] University of Texas at Dallas, USA*
Scenario forecasting of insurance claims based on representative concentration pathways (RCPs)

16:00 - 16:30   Coffee

16:30-18:00 Student Papers 1   **Room E1-1027**
Chair: Kilani Goudi; United Arab Emirates University, UAE

16:30 **Tariq Alshammari** *and Jianan Peng; Department of Mathematics and Statistics, Acadia University, Canada:*
Simultaneous inference for low dose risk estimation with log-probit quantal response model in benchmark analysis

17:00 **Alexander LISS**, *Elena N NAUMOVA2; Tufts University, USA:*
The Frequency, Intensity and Arrival Time of Seasonal Heat Waves and their Adverse Effects on Human Health in Eight Climatic Regions of the United States

17:30 **Huong NGUYEN THU**[1,2];[1] *Lule University of Technology, Sweden and* [2] *Foreign Trade University, Vietnam:*
On Multivariate Model Selection Involving Time Series of Environmental Kuznets curve

16:30-18:00 Methodology for Environmental Applications   **Room E1-1028**
Chair: Taoufik Zoubadi; United Arab Emirates University, UAE

16:30 **H. Ouahhabi** *and C. A. Tudor; United Arab Emirates University, UAE and University of Lille, France:*
Additives functionals of the solution to fractional stochastic heat equation

17:00 **Ayesha Ali**, *University of Guelph, Canada:*
Understanding different dimensions of ecological networks

17:30 **Xiaoli Gao;** *University of North Carolina at Greensboro*
Robust Variable Selection and Subgroup Identification

16:30-18:00 Invited Session   **Room G020-Auditorium (Male)**
Modeling and Forecasting Solar Energy
Organizer and Chair: *Yulia R. Gel, University of Texas at Dallas, USA*

16:30 **John Boland**; *Centre for Industrial and Applied Mathematics University of South Australia, Australia:*
Additive versus Multiplicative Seasonality in Solar Radiation Time Series

17:00 **Prashanth R Marpu***and BMJ Ouarda; Institute Center for Water and Environment (iWATER), Masdar Institute of Science and Technology,Abu Dhabi, United Arab Emirates*
Non-linear Models for Estimation of Solar Radiation from Satellite Images

17:30 **Joshua Patrick;** *University of California at Davis, United States of America*
A Semiparametric Spatio-Temporal Model for Solar Irradiance Data

9:00-10:30 Student Papers 2   **Room E1-1027**
     Chair: Armand MAUL; University of Lorraine, France

9:00 **Rahma ALI** *and Abdel H. EL-SHAARAWI; Cairo University, Egypt:*
Water Nutrients of Lake Winnipeg: Spatial Analysis of Algal Chlorophyll Concentration

9:30 **Laique Merlin Djeutchouang**[1] *and Abdelhameed El-Shaarawi*[2] [1]*African Institute for Mathematical Sciences, Tanzania and* [2]*Cairo University; Egypt:*
Extreme Value Modelling with Application to Environmental Control

10:00 **Xin Huang**[1]*, Vyacheslav Lyubchich*[2]*, Alexander Brenning*[3]*, Yulia R. Gel*[1]*;* [1]*University of Texas at Dallas, USA;* [2]*University of Maryland Center for Environmental Science, USA and* [3]*Institute of Geography, University of Jena, Germany :*
Applications of Machine Learning in Environmetrics: Detecting Dynamic Trend-Based Clusters in Precipitation

9:00-10:30 Invited Session   **Room E1-1028**
     Confluence of Satellite Remote Sensing, Environment,and Human Health for Modeling and Forecasting
     Organizer and Chair: *Elena N. Naumova, The Gerald J. and Dorothy R. Friedman School of Nutritional Science and Policy, Tufts University, USA.*
     Session Moderator: Alexander Liss, Tufts University, USA

9:00 **Magaly KOCH**[1]*, Irene BOSCH*[2]*, Jeronimo ALENCAR*[3]*, Vanessa MELANDRI*[3]*, Anthony GUIMARAES*[3]*, Lee GHERKE*[2]*, Elena N. NAUMOVA*[4]*;* [1]*Center for Remote Sensing, Boston University, USA* [2]*Massachusetts Institute of Technology, USA* [3]*Instituto Oswaldo Cruz, Rio de Janeiro, Brazil*
The Use of Remote Sensing Monitoring to Understand Optimal Conditions for Mosquito Abundance in Pantanal, Brazil

9:30 *Farouk EL-BAZ*[1]*, Magaly KOCH*[1]*,* **Zeineabidin RIZK**[2]*, Khalid ALHOSSANI*[3]*,* [1]*Center for Remote Sensing, Boston University, USA* [3]*Institute of Environment, Water and Energy, Ajman University of Science and Technology, 3Public Health and Environment Sector, Ajman Municipality and Planning Department, Ajman, United Arab Emirates Ajman, United Arab Emirates*
Water Map of Ajman Emirate: A Tool for Sustainable Water Resources Management in United Arab Emirates

10:00 **Ahmed GABER**[1]*, Magaly KOCH*[2]*, Abou-Bakr IBRAHIM*[3]*, Osama Farouk*[3]*, Sayed MOHMAED*[4]*, Farouk EL-BAZ*[2]*;* [1]*Geology Department, Faculty of Science, Port-Said University, Egypt,* [2]*Center for Remote Sensing, Boston University, USA,* [3]*Ganoub El Wadi Petroleum Holding Company, Egypt* [4]*National Authority for Remote Sensing and Space Sciences, Egypt:*
Sustainability Indicators for Agriculture Development in a Region West of Aswan, Egypt, Based on Remote Sensing and Geophysical Studies

10:30 - 11:00 Poster SESSION

12:30 *Florence GOSSELIN*[1] *Laurence MATHIEU*[1]*, Grgory FRANCIUS*[1]*, Yannick GOURBEYRE*[2]*, Emmanuelle GAUDICHET-MAURIN*[2]*, Jean-Claude BLOCK*[1]*,* **Armand MAUL**[3]*;* [1]*CNRS, EPHE, UL, Laboratory LCPME, 405 rue de Vandoeuvre, F-54600 Villers-les-Nancy* [2]*VEOLIA Recherche et Innovation, Chemin de la digue, BP 76, F-78603 Maisons-Laffitte* [3]*CNRS, UL, Laboratory LIEC, rue du Gnral Delestraint, F-57070 Metz:*
Relationships between the conditioning film and the surface characteristics of materials in contact with drinking water A way to assess new innovative non-adhesive materialsy

11:00 **Ivanka HOROVÁ**[1]*, Jan KOLÁČEK* [1]*, Kamil RAJDL*[1]*;* [a]*Masaryk University Brno, Czech Republic* [b]*Masaryk Memorial Cancer Institute Brno, Czech Republic*
Analysis of photovoltaic energy using kernel smoothing

10:30 - 11:00   **Coffee**

11:00-13:00 GRASPA Invited session   Room E1-1028
  Statistical surveillance of environmental risks
  Organizers: *Daniela Cocchi and Alessandro Fassó; University of Bologna and University of Berg-amo, Italy*
  Chair: Marc Genton; King Abdullah University of Science and Technology, Saudi Arabia

11:00 **Francesco Finazzi** *and Marian Scott; University of Bergamo, Italy and University of Glasgow, UK:*
  Analysis of coherency in sea surface water temperature using model-based clustering

11:30 **Pasquale Valentini**; *G. d'Annunzio University, Italy:*
  Generalized latent VARMAX models and dynamic structural equations, with application in air pollution and health statistics.

12:00 **Alessandro Fassó**; *University of Bergamo, Italy:*
  Statistical issues in earthquakes early warning using volunteer sensor networks

12:30 **Tonio Di Battista**; *G. d'Annunzio University, Italy:*
  Environmental monitoring through functional biodiversity tools.

11:00-13:00 Invited session   Room E1-1027
  Efficient Estimation in Regression, Changepoint and Survival
  Organizer and Chair: *Abdulkadir Hussein; University of Windsor, Canada*

11:00 **Severien Nkurunziza**[1], *Fuqi Chen*[2]; [1]*University of Windsor /Université de Sherbrooke (on leave), Ontario/Québec, Canada,* [2]*The Fields Institute for Research in Mathematical Sciences, Ontario, Canada*
  James-Stein type-estimators in Multivariate Linear Models with Change-points

11:30 **Radhey S Singh**; *Department of Statistics and Actuarial Science University of Waterloo, CANADA*
  Hierarchical quasi-likelihood approach to frailty models with non-parametric risk effects

12:00 **Marwan Al-Momani**[1], *A. Hussein*[2]*, S.E Ahmed*[3];[1] *King Fahd University of Petroleum and Minerals, Saudi Arabia,* [2]*University of Windsor, Canada and* [3] *Brock University, Canada*
  Penalty and Related Estimation Strategies in Simultaneous Autoregressive Model

12:30 *Katrina Tomanelli*[1]*,* **Abdulkadir Hussein**[2]*, Severien Nkurunziza* [3]; [2,3] *University of Windsor, Canada1,* [1]*Clair College, Windsor, Canada*
  Additive survival models and shrinkage estimation

13:00 - 14:00   Lunch

14:00-16:00 Invited Session   Room E1-1028
  Recent Advances in Environmental Statistics
  Organizer and Chair: *Marc Genton; King Abdullah University of Science and Technology, Saudi Arabia*

14:00 **Ying SUN**[1]*, Huixia J. WANG*[2]*, Montserrat FUENTES*[3]; [1] *King Abdullah University of Science and Technology, Saudi Arabia,*[2]*George Washington University, USA;* [3]*North Carolina State University, USA:*
  Fused Adaptive Lasso for Spatial and Temporal Quantile Function Estimations

14:30 *Philippe NAVEAU*[1]*,* **Raphael HUSER**[2]*, Pierre RIBEREAU*[3]*, Alexis HANNART*[4];[1]*Laboratoire des Sciences du Climat et l'Environnement, France,* [2]*King Abdullah University of Science and Technology, Saudi Arabia*[3]*, Institut de Science Financiere et dAssurances, France,* [4]*Centre National de Recherche Scientifique, Argentina :*
  Modelling Jointly Low, Moderate and Heavy Rainfall Intensities Without a Threshold Selection

15:00 *Ganggang XU*[1]*,***Marc G. GENTON**[2]; [1]*Binghamton University, USA and* [2]*King Abdullah University of Science and Technology, Saudi Arabia:*
  Tukey g-and-h Random Fields

14:00-15:30 Invited Session   **Room E1-1027**

    The impact of social and climate environment on the incidence of diseases
    Organizer and Chair: *Leticia Ramirez Ramirez; Mathematics Research Center (CIMAT), Mexico*

14:00 **Mustafa AL-ZOUGHOOL**, *Department of Community and Environmental Health, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia:*
    A Comprehensive Framework for Environmental Health Risk Assessment

14:30 **Ibrahim H.A. ABD EL-RAHIM1**[1,2]*;Umm Al-Qura University, Saudi Arabia and* [2]*Assiut University,Egypt:*
    The social behavior and spreading of infectious diseases in developing countries such

15:00 **Yulia R. GEL**[1], *L. Leticia RAMIREZ RAMIREZ*[2], *Vyacheslav LYUBCHICH* [3]*;*[1]*University of Texas at Dallas, United States of America;*[2]*Mathematics Research Center (CIMAT), Mexico;* [3] *University of Maryland Center for Environmental Science, United States of America:*
    Biosurveillance of Climate Sensitive Mosquito-Borne Diseases Using Online Social Media

15:30 - 16:00   **Coffee**

16:00-17:00 Keynote Address   **Room G020-Auditorium (Male)**
Chair: Jorge Mateu, University Jaume I of Castellon, Spain
    Håvard Rue, Department of Mathematical Sciences NTNU, Norway
    Penalising model component complexity: A principled practical approach to constructing priors

17:00-18:00   **Annual General Meeting**   **Room G020-Auditorium (Male)**

18:00   **Depart for banquet**

9:00-10:00 The President's Invited Lecture   Room G020-Auditorium (Male)
Chair: Ron Smith, Centre for Ecology and Hydrology, UK
Daniela Cocchi, Department of Statistical Sciences, University of Bologna
How Geography helps in finite population inference

10:00-11:00 Invited Session   Room G020-Auditorium (Male)
Spatial-Temporal Point Patterns and Models
Chair: *Gema Fernández-Avilés, University of Castilla-La Mancha*

10:00 **Jorge Mateu**[1], *Jonatan Gonzalez-Monsalve*[1], *Ute Hahn*[2]; [1] *University Jaume I of Castellon, Spain;* [2] *Aarhus University, Denmark:*
An ANOVA-type procedure for replicated spatio-temporal point patterns with environmental applications

10:30 **Murali Haran**; *Penn State University, USA :*
An attraction-repulsion spatial point process model for respiratory virus infections concentrations

10:00-11:00 Invited Session   Room E1-1028
Methods for Environmental Data with Below Detection Limit Valuess
Organizer and Chair: *Sylvia R. Esterby, University of British Columbia Okanagan, Canada*

10:00 **Shojaeddin Chenouri**, *Statistics and Actuarial Science, University of Waterloo, Canada, and Niloofar Shoari and Jean-Sebastien Dube; Ecole de Technologie Superiere, Montreal;*
Parameter estimation based on environmental data with below detection limits: Considering skewness and model misspecification

10:30 **Jaroslav Michalek;** *University of Defence, Czech Republic, and Michal Fusek, Brno University of Technology, Czech Republic:*
Left-censored samples from skewed distribution statistical inference and applications

11:00 - 11:30   Coffee

11:30-13:00 Invited Session   Room E1-1027
Environmental Economics
Organizer and Chair: *Abdel H. El-Shaarawi, Cairo University, Egypt and National Water Research Institute, Canada*

11:30 **José-Mara Montero**, *Gema Fernández-Avilés and Román Mínguez, University of Castilla-La Mancha:*
Spatial Linear and Non-Linear Hedonic Models with and without Spatial Drift to Assessing the Impact of Environment on Housing Prices:An Application in the City of Madrid

12:00 **Javier SANTACRUZ CANO**, *Research Department, Stock Exchange Studies Institute, Spain:*
Brent Oil Prices and the Theory of Solar Spots

12:30 **Djeddour-Djaballah, Khedidja**; *Laboratory MSTD Faculty of Mathematics Univ. of Sci. and Tech. of Algiers:*
Statistical study of the production and the consumption of gas

11:30-13:00 Invited Session **Room E1-1028**

Spatio-Temporal Geostatistics and New Methodologies
Organizer and Chair: *Donato Posa, and Alessandro Fassó,Department of Engineering Management, University of Bergamo, Italy*

11:30   ***Donato Posa****; Dip. di Scienze dell'Economia Sezione Matematico-Statistica, Universitá del Salento, Italy:*
Geostatistical models and new computational aspects for space-time predictions

12:00   ***Monica Palma****; Dip. di Scienze dell'Economia Sezione Matematico-Statistica, Universitá del Salento, Italy:*
Selecting space-time covariance functions for modeling air quality data

12:30   ***Sandra De Iaco****; Dip. di Scienze dell'Economia Sezione Matematico-Statistica, Universitá del Salento, Italy:*
Predictions of complex-valued random fields and computational aspects

11:30-13:00 **Room G020-Auditorium (Male)**

Spatio-Temporal Geostatistics and New Methodologies
Organizer and Chair: *Elena N. NAUMOVA,Tufts University, USA*

11:30   ***Madeline WRABLE***[1], *Alexander LISS*[1], *Alexandra KULINKINA1, Magaly KOCH*[2], *Nana-Kwadwo BIRITWUM*[3], *Elena N. NAUMOVA*[1,4], *David M. GUTE*[1], *Karen C. KOSINSKI5;* [1]*Department of Civil and Environmental Engineering, Tufts University, Medford, USA* [3]*Neglected Tropical Disease Control Division, Ghana Health Service, Accra, Ghana* [4]*Friedman School of Nutrition Science and Policy, Tufts University, Boston, USA and* [5]*Department of Community Health, Tufts University, Medford, USA,*[2]*Center for Remote Sensing, Boston University, Boston, USA:*
Automated Method for Climate Regionalization based on Satellite Remote Sensing Data: An Application to the Spatial Modelling of Urogenital Schistosomiasis in Ghana

12:00   ***Aishwarya VENKAT***[1]*,Aishwarya VENKAT*[1]*, Melissa CRUZ*[1]*, Meghan HARTWICK*[2]*, Tania Alarcon FALCONI*[1]*, Hanna EHRLICH*[1]*, Shalini ANANDAN*[3]*, Naveen KUMAR*[3]*, Veeraraghavan BALAJI*[3]*, Elena N. NAUMOVA*[1,3]*;* [1]*Tufts University, Boston, USA;* [2]*University of New Hampshire, Durham, USA,* [3]*Christian Medical College, Vellore, India:*
Characterizing Spatiotemporal Distribution of Cholera Using Hospitalization Records: Patient Profiles from Vellore, India

12:30   *Anastasia MARSHAK and* ***Alexander LISS****; Tufts University, USA:*
Crop yield predictions for early warning decision support using remote sensing data in Sila, Chad

13:00 - 14:00   Lunch

14:00 **TOURS**

9:00-10:00 Keynote Address　　　　　　　　　　　　　　　　　**Room G020-Auditorium (Male)**
Chair: José-Mara Montero, University of Castilla-La Mancha
　　Louise Ryan, Distinguished Professor of Statistics, University of Technology Sydney (UTS) , Australia
　　Environmetrics in the big data era

10:00-11:30 Invited Session　　　　　　　　　　　　　　　　　　　　　　　　**Room E1-1028**
　　Big Data Analysis
　　Organizer and Chair: *Ejaz Ahmed , Brock University, Canada*

10:00 **M. Faisal Beg**, *Simon Fraser University, Canada:*
　　Spatial Statistics and High Dimensional Network Analysis in Computational Anatomy

10:30 **Ejaz Ahmed**, *Brock University, Canada:*
　　A Journey through Data to BIG DATA: A Statistician Perspective

11:00 **Shafiqah Al-Awadhi**, *Fahima Al-Awadh; Kuwait University, Kuwait*
　　Spatial-Temporal Interpolation of Non-Methane Hydrocarbons Levels in Kuwait

10:00-11:30 Invited Session　　　　　　　　　　　　　　　　　　　　　　　　**Room E1-1027**
　　Statistical Advances in Hydrology
　　Organizer and Chair: *Chebana Fateh, Centre Eau Terre Environment, INRS, Canada*

10:00 **David Bolin**; *Chalmers University of Technology Gteborg Sweden:*
　　Calibrating regionally downscaled precipitation over Norway through quantile-based approaches

10:30 **Abdelkader Benkhaled**[a] **,** *Helene Higgins*[b], *Fateh Chebana*[b], *Abdelhakim Necir*[c]*;,*[a]*Research Laboratory in Subterranean and Surface Hydraulics,Algeria;*[b]*INRS-ETE, Canada and* [c]*University of Biskra, Algeria*
　　Of the stationarity and non stationarity in frequency analysis Application to the supended sediment concentrations in Abiod river, Biskra (Algeria)

11:00 *Imene Ben Nasr,* **Fateh Chebana;** *Centre Eau Terre Environment, INRS, Canada:*
　　Goodness-of-fit procedures for multiparameter copula based on multivariate L-moments

11:30 - 12:00　Coffee

12:00-13:30 Invited Session　　　　　　　　　　　　　　　　　　　　　　　　**Room E1-1027**
　　Risk and Water Quality
　　Organizer and Chair: *Abdel H. El-Shaarawi, Cairo University, Egypt and National Water Research Institute, Canada*

12:00 *David Landriault,***Khouzeima Moutanabbir**, *Gordon E. Willmot., University of Waterloo, Canada and The American university in Cairo, Egypt:*
　　Statistics of mixed Erlang distributions and applications

12:30 **Armand MAUL**; *University of Lorraine, LIEC-CNRS, 57070 Metz, France*
　　Heterogeneity: a major factor influencing toxicity and risk assessment

13:00 **Sylvia Esterby**;*Statistics, University of British Columbia Okanagan, Canada*
　　Continuous Water Quality Monitoring Data: Calibration and Estimation

12:00-13:30 Invited Session   Room E1-1028
   Change-Point Methods for Environmental Data Analysis
   Organizer and Chair: *Venkata K. Jandhyala; Washington State University*

12:00   **Daniela Jarušková**; *Department of Mathematics, Faculty of Civil Engineering Czech Technical University:*
   Change point analysis of small Czech rivers seasonal behavior

12:30 **Stergios B. Fotopoulos**; *Department of Finance and Management Science Washington State University:*
   General asymptotics for the change-point problem

13:00 *Elena A. KHAPALOVA*[1], **Venkata K. Jandhyala**[2] *and Stergios B. FOTOPOULOS*[2] *:*[1] *University of Michigan-Flint, USA and* [2] *Washington State University, USA*
   Statistical study of Alaskan temperatures over time: A revisit

13:30 - 14:30   Lunch

14:30-16:30 Invited Session   Room E1-1028
   Extremes and Risk Assessment
   Organizer and Chair: *José M. Angulo, Department of Statistics and Operations Research, University of Granada, Spain*

14:30   **Elias Moreno**, *University of Granada, Spain:*
   Clustering for binomial trials

15:00   **Evan K. Paleologos**, *Professor and Chair Civil Engineering, Abu Dhabi University, UAE:*
   Subsurface contaminant monitoring and network design: Guidelines for optimal detection and remediation actions for Gulf Region aquifers

15:30 **Abdel H. El-Shaarawi**, *José M Angulo and Alessandro Fassó; Cairo University and National Water Research; Institute, Canada University of Granada, Spain and University of Bergamo, Italy :,*
   Data Transformation and Communication for Decision Making

16:00   **José M. Angulo**, *Ana E. Madrid, José L. Romero, University of Granada, Spain, University Centre of Defence at the Spanish Air Force Academy, MDE-UPCT, Spain:*
   Risk Assessment of Spatial Threshold Exceedances

14:30-16:30   Room E1-1027
   Extremes and Risk Assessment
   Chair: *Daniela Jarušková*; **Department of Mathematics, Faculty of Civil Engineering Czech Technical University:**

14:30   **Jaromir Antoch** *and Eliska Cezova Charles University of Prague and Czech Technical University of Prague Prague, Czech Republic:*
   MODELLING POLLUTION OVER AND AROUND OPEN-CUT COAL MINE:

15:00   **Alexander BRENNING**; *Department of Geography, Friedrich Schiller University, Jena, Germany:*
   Adding the Spatial Dimension to Statistical and Machine-Learning Modelling

15:30 **Masselot, P**[1], *Chebana, F*[1], *Blanger, D.*[1,2], *Abdous, B.*[3], *St-Hilaire, A.*[1], *Gosselin, P.*[1,2,4]; [1] *Institut National de la Recherche Scientifique, Québec (QC), Canada;*[2] *Centre Hospitalier Universitaire de Québec, Québec (QC), Canada;*[3] *Universit Laval, Québec(QC), Canada;* [4] *Institut national de sant publique du Québec (INSPQ), Québec Canada.:*
   The EMD-regression for an overall relationship between a response and exposures

16:30 Closing Ceremony