The International ENVIRONMETRICS Society - TIES

TIES News, February 2021

Message from the President

Thoughts from the TIES'20 Virtual Conference

Lelys Bravo de Guenni

Dear TIES Members,

TIES Virtual Conference was held on 2-4 December of 2020. The conference key theme: Frontiers in Statistics, Epidemiology and the Environment were kicked off each day by three wonderful keynote talks: *Integrating disparate data for disease surveillance* by **Elaine Nsoesie** (Boston University); *HIV predictions and its related issues* by **Bo Li** (University of Illinois at Urbana-Champaign; and *Multiresolution investigation of smoke observations: the value-added by data sets at high spatial resolutions* by **Huykio Lee** (NASA Jet Propulsion Laboratory). We had six invited sessions:

1. Challenging in Modelling COVID-19-related Issues
2. Environmental Monitoring and Change Detection
3. Human Health and Environmental Factors
4. Topological Data Analysis for Bio-Surveillance
5. Fresh Water Quality Monitoring and Analysis
6. Modeling Physical and Ecological Changes.

Twenty-three invited talks from speakers from thirteen countries made the conference a successful space for the exchange of ideas and important findings. Thank so again to all speakers for your professionalism and contributions. Each day finished with a round table discussion with top panelists with different views and insights about very interesting topics:

- *Data Sciences and Environmental Problems* led by **Alexandra Schmidt** (Chair), (McGill University, Canada), **Amanda Hering** (Baylor University, USA) and **Jennifer Hoeting** (Colorado State University, USA)
- *Career path on Statistics and the Environment* led by **Ashley Steel** (Chair) (FAO, Italy), **Megan Higgs** (Critical Inference) and **Peter Guttorp** (Emeritus Professor at University of Washington)
- *Challenges in Data, Models and Prediction in the COVID-19 Context* led by **Elena Naumova** (Chair) (Tuft University, USA), **Kevin Lane** (Boston University, USA), and **Debra Boka** (University of California Irvine, USA).

Last but not least, during the virtual conference, we had the TIES-Wiley 2020 best student presentation award competition. It has always been a long TIES commitment to encourage and promote the new generations of scientist and professionals in Environmental Statistics. We want to thank Wiley for its continued support on this

initiative, and the TIES Award committee for its superb job in evaluating the 16 participants from 5 different countries. Please read inside this issue, to know more about the award winner, Ph.D. student **Laura Cartwright**, from the University of Wollongong, Australia. Also meet Ph.D. students **Matthew Bonas** (honorable mention) from University of Notre Dame, USA and **Quan Vu** (Runner up), from the University of Wollongong, Australia.

We had 158 people registered from 29 countries for the conference and needed to face all the challenges to handle security aspects related with the virtual conference platform. We want to thank **Felipe Gutiérrez** (graduate student from Pontificia Universidad Católica de Chile) and **Ignacio Segovia-Dominguez** (postdoc from University of Texas Dallas, USA) for their technical support during the meeting. They have been awarded the TIES President Appreciation Award for their invaluable help. These people, along with **Orlando Guenni**, were the magic and invisible hands who ensured that TIES 2020 virtual conference ran smoothly, safely and without any technical problems.

I will end this conference synthesis with a phrase I used for the conference opening. This phrase is originally from Rachel Carlson in her 1962 book: Silent Spring. It reads as follows: "Human beings are not in control of nature but are simply one of its parts: The Survival of one part depends upon the health of all." I want to thank all the chairs, speakers, discussant and conference participants for their participation in the TIES 2020 virtual conference.

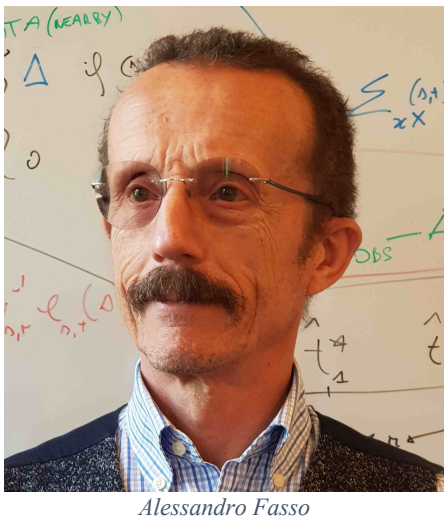
Best wishes,

Lelys Bravo de Guenni
TIES President 2019-2021

Message from *Environmetrics* Editor

Meet Alessandro Fassò, Editor-in-Chief of *Environmetrics*, the official Journal of TIES

The year 2020 has been an important year for ***Environmetrics***. On 31 December 2019, **Walter Piegorsch** retired from the position of Editor in Chief (EiC), and I stepped in. I wish warm thanks to Walter for leading the Journal and bringing it to be the reference for Environmental Statistics. From the personal point of view, I appreciated very much his friendliness and his help in introducing me to the EiC position since months before his step out. This allowed a smooth transition, and I learned a lot from Walter.


Alessandro Fasso

Nonetheless, this first year has been really exciting for me. I started collaborating with the existing Editorial Board and appreciate the commitment of the Associate Editors (AE). In the meantime, I started extending the Board with new experts, which includes now 54 AEs. At the Board meeting held last

September, we agreed to introduce a new Reviewer Award, recognizing the effort and importance of good and timely reviews. This will be implemented soon.

***Environmetrics* by the number**

For calendar year 2019 (Vol. 30) the journal published 55 papers in 8 issues, with three special issues on: *Spatio-Environmental Modeling for Health Outcome Data*, *Climate Informatics*, and *Statistics for Climate Change and the Environment*.

According to Publisher's Report delivered in August 2020, the number of submissions increased from 145 (average in 2016-2018) to 166 in year of 2019. Moreover, rejection rate was 66% which is slightly higher than the three-year average of 64%. The 2019 impact factor (IF), based the number of citations in 2019 to items published in 2017 and 2018 divided by the number of items published in 2017 and 2018, has dropped from 1.351 to 1.039. The board is working to revert this trend.

Research eXchange (REX) free format submission

In late 2020, Wiley implemented a new submission system embedded in ScholarOne called Research eXchange (ReX) free format submission. It has been planned to give the following benefits to our authors:

- ReX is intended to save time and effort. Authors drag and drop their article files into ReX. The platform then uses machine learning to read these files and authors simply confirm their details, with no need to re-enter data, before submitting.
- ReX is aimed at providing a better overall user experience. Authors will log into ReX using the same account they use for other Wiley sites – like Wiley Online Library or Author Services. They will also be able to manage their submissions at other Wiley journals via the same account.
- ReX will facilitate transfers. Authors do not always succeed in publishing in their first-choice journal. Many papers are not rejected because of poor science but rather for priority reasons and scope considerations. In the future, ReX will make it easier for authors to transfer their article to a new journal.
- ReX will help authors submit a suitable manuscript. ReX is continually improving major releases in the future will provide new tools to support authors throughout their submission journey. ReX will provide feedback to authors about the quality and suitability of their submission so that they can fix problems before submitting.

Wiley-TIES Best *Environmetrics* Paper

Together with the Journal publisher and TIES we call readers and members attention to the annual Wiley-TIES Best *Environmetrics* Paper Award. The award recognizes the authors of an outstanding published paper from a calendar year by inviting to present their work at the following year's TIES or ISI conferences. The Award Committee nominated by the President of TIES assessed the candidates considering the following aspects: original methodology, innovative solution, theoretical depth, interesting data application and potential for broad use. Thus, selected papers must meet the following criteria:

- present novel theory or methodology for relevant and current environmental applications
- be well written with large potential for impact
- provide a significant contribution to environmetric research.

All regular submissions to *Environmetrics* that are accepted in a calendar year are considered eligible for that year. We are looking forward to outstanding candidates of 2020!

Alessandro Fassò
Environmetrics Editor-in-Chief

Meet TIES-Wiley Best Presentation Award Recipients

Meet TIES-Wiley Best Student Presentation Award Recipients of the TIES'20 Virtual Conference

The TIES Award Committee received 16 submissions representing 5 countries and 10 universities:

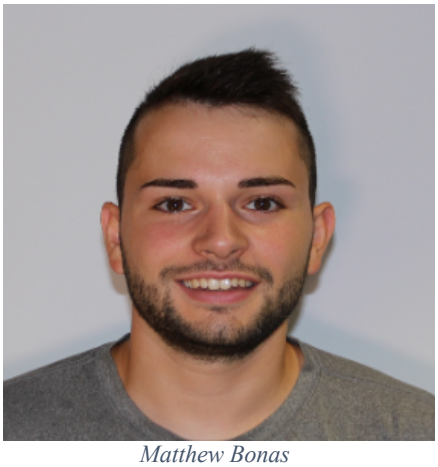
University of Wollongong, Australia: **Laura Cartwright**, **Matthew Sainsbury-Dale**, **Quan Vu**
KAUST, Saudi Arabia: **Gaurav Agarwal**, **Peng Zhong**, **Zhongwei Zhang**
McGill University, Canada: **Dirk Douwes-Schultz**, **Sara Zapata Marin**
Colorado State University, USA: **Lauran Hoskovec**, **Daniel Mork**
Baylor University, USA: **Haley Durrell**
Notre Dame University, USA: **Matthew Bonas**
University of Maryland, USA: **Vitaly Kholodovsky**
University of North Carolina-Chappell Hill, USA: **Hui Sui**
University of Texas-Dallas, USA: **Zhiwei Zhen**
Pontificia Universidad Católica de Chile: **Felipe Gutiérrez**

Congratulations to the winners and a big thank you to all the participants and WILEY - the Award sponsor!


Laura Cartwright

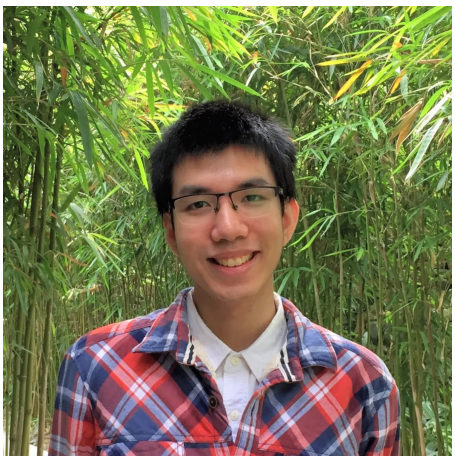
Meet the Winner: Laura Cartwright for "*Emulation of Lagrangian particle dispersion model sensitivities using a convolutional variational autoencoder*". Laura is a Ph.D. student in the School of Mathematics and Applied Statistics at University of Wollongong, Australia. Her main interest lies in statistical applications related to atmospheric chemistry, particularly atmospheric concentrations of greenhouse gases. While a lot of investment goes into obtaining accurate measurements of greenhouse gas mole fractions, determining the sources and sinks of these gases, remains a difficult problem due to their complex interaction with atmospheric processes such as ambient air temperature and wind. She is working on developing novel statistical methods to estimate greenhouse gas sources and sinks which also give a good measure of the uncertainty associated with

these estimates. This research rewards highly interdisciplinary work at the centre of statistics, machine learning, atmospheric chemistry, and geophysics.



Matthew Bonas

Meet the Honorable Mention: Matthew Bonas for "*Stochastic Machine Learning Models for Urban Air Quality Monitoring*." Matt is a Ph.D. student at the University of Notre Dame in the United States working with Dr. Stefano Castruccio. His current research interests are in the development of spatio-temporal statistical models for environmental applications. More specifically, he works with machine learning methods for spatio-temporal data. His work focuses on computationally efficient and effective ways to complete long lead time and long-range forecasting. Aside from research, Matt is an avid sports fan and plays both soccer and volleyball in his free time.



Quan Vu

Meet the Runner Up: Quan Vu for "*Modelling Nonstationary and Asymmetric Multivariate Spatial Covariances via Deformations*". Quan is a second-year Ph.D. student at the School of Mathematics and Applied Statistics at the University of Wollongong, Australia. Quan's research interest lies in developing statistical models for environmental data. Specifically, his current research is on modeling nonstationary and asymmetric multivariate spatial data, using models which combine ideas from traditional statistical methods and deep learning. These innovative models can provide reliable predictions and uncertainty quantification in important environmental problems.

Notes from TIES Award Committee

The duties of the TIES Award Committee includes:

- making recommendations to the Board of Directors concerning new awards and changes to existing awards
- acting on the directions of the Board of Directors regarding new awards and changes to exiting awards
- overseeing the process of granting established awards at all stages and according to the criteria and procedures that have been set out for each award
- retaining responsibility for the plaques for the J. Stuart Hunter Lecture and the President's Invited Lecture
- coordinating award activities with the Board of Directors and Conference Organizing committees as appropriate.

Call for the Abdel El-Shaarawi Early Investigator Award 2021

The Abdel El-Shaarawi Early Investigator (AEEI) Award 2021 was established by the TIES Board in order to recognize and honor early investigators who have made outstanding contributions to the development of statistical and/or quantitative approaches for research in the environmental sciences. This prestigious AEEI award is granted to a researcher, who is a TIES member for years 2020 and 2021 and has received their PhD within 12 years of the submission deadline (15th of February 2021) for nominations.

The award carries with a certificate presented at the TIES'2021 Conference. The nominations are based on:

- Outstanding contribution to environmental statistical and quantitative research with quality and impact as proved by the number and the reputation level of publications in the statistical literature.
- Strong interdisciplinary work for solving important environmental problems, as proved by high reputation interdisciplinary publications and research projects.
- Contribution to the Environmetrics community, as proved by the organization of courses and conferences, and professional development in the field of Environmetrics.
- Contribution to TIES, as proved by, for example, number of years of membership, participation to TIES conferences or courses, organization of TIES conferences/courses or invited sessions, contributions to the board.

Edward L. Boone (Chair), Joanna Mills Flemming, Gabriel Huerta,
Wendy Meiring, Nathaniel Newlands, Andrew Zammit Mangion
TIES Award Committee (2020-2022) Members

Notes from TIES Membership Committee Members

Meet the TIES Membership Committee (2020-2022) Members: **Monica Pirani - Chair** (UK), **Carolina Euan** (Saudi Arabia), **Stefano Castruccio** (USA), **Susan Simmons** (USA), **Melanie Meis** (Argentina), and **Jonathan Stroud** (USA)

The committee had started on September 1, 2020. Before the TIES Virtual Conference the committee members discussed ways to learn more about TIES membership interests and composition. One of the ways was to administer a poll during a short break in the conference. **Monica Pirani** had introduced the committee members at the virtual conference and conducted the zoom pool, which included three single-choice and one multiple-choice questions, and the results are summarized in the table below.

TIES Virtual Conference POLL RESULTS (31 responders out of 68 participants)	
1. Are you a: (multiple choice)	**3. How do you get to know about TIES activities? (Single Choice)**
Academic – (14) 45%	**TIES Website – (15) 48%**

Early career researcher/postdoc – (8) 26%	Email News – (14) 45%
Student – (7) 23%	Bulletin – (2) 6%
Industry/Government – (2) 6%	
2. How did you know about TIES? (Single Choice)	**4. What additional activities would you like to see TIES do for our community in the upcoming year? (Single Choice)**
PhD Advisor suggestion – (15) 48%	**Webinars – (11) 35%**
Collaborator Invitation – (10) 32%	Short courses – (6) 19%
TIES website – (3) 10%	Working groups – (6) 19%
Other – (3) 10%	More conferences – (5) 16%
ISI website – (0) 0%	None, the amount of activities currently done by TIES is a good amount – (3) 10%

The committee is now exploring the ways to increase membership and plan to engage a potential pool of students, interested in TIES agenda, mission and vision. This aspect will be discussed this spring. The committee also recently signed the ISI Association Officials Confidentiality Agreement to access membership data.

Monica Pirani
TIES Membership Committee Chair

Note from TIES'20 Virtual Conference Discussion on COVID-19

Notes from Round Table Discussion 3: **Challenges in Data, Models and Prediction in the COVID-19 context** organized by Elena Naumova (Tufts University, USA).

Meet the participants Kevin Lane (BU, USA), Debra Boka (University of California Irvine, USA).


Kevin Lane

Kevin Lane, Ph.D. is Assistant Professor at the Department of Environmental Health, Boston University School of Public Health. His research focus includes the field of air pollution, built environment, urbanization and impacts of climate change on health in local, national and international settings. His expertise in big-data and spatial research has led to the development of novel methods that integrate geographic information systems (GIS), remote sensing data and time-activity algorithms to improve exposure assessment and epidemiology.

Debra Boka is a doctoral student in sociology at the University of California, Irvine. She holds a master's degree in demographic and social analysis.

Debra Boka

Through our executive and professional academic visions and research programs, we call for action in setting new standards of gaining the insight in what's happening in the world, building capabilities and skills for solving modern challenges, promoting effective and objective science and scientific communication, considering ethical actions and long-term consequences. With this main premise, we had discussed four questions. Here are short responses to these selected questions from the panelists.

1.What are the challenges in Data, Models and Prediction in the COVID-19 context from your perspective?

KL: A challenge in COVID-19 modelling has been the spatial scale of data that is available. Spatial scale of COVID-19 data being used to develop models is an important consideration as many important public health decisions are occurring at a local level. County scale models have good generalizability, and can perhaps inform federal and some state policies, but may not be able to account and address local policies and resource allocation to COVID-19 that have been the focal point of the majority of actions. Sub-county COVID-19 data is not widely available but building platforms to work with data at those scales could be a large contribution. Another challenge is the availability of predictor data for models that could be made available to researchers and departments of public health. As many researchers are building their own datasets, a large benefit to the field would be to make more code and/or datasets available. This would substantially increase the amount of potential analyses and allow for pooled data for a meta-analyses. The National COVID Cohort Collaboration (https://ncats.nih.gov/n3c) is one group trying to address both of these areas of concern simultaneously by providing zip code level COVID-19 data from CTSI funded hospitals and a repository of environmental and social determinants of health data for researchers to access.

DB: I believe the root of the challenges are in the standardization of data collection and presentation as well as data availability. The models and predictions are only as good as the data they are built on, and the collection of data remains- at least in the U.S.- non-uniform. Some states are presenting positive antibody tests as positive cases while others are not. Some are reporting the positive cases in the county or town the person is tested in while others are reporting them as coming from the geographic area the person resides. In the case of Louisiana, they are reporting them from the lab location initially and then adjusting the numbers to the place of the person's residence sometimes days after the fact as new information comes through. This methodology was put in place midstream on August 25th, and daily data tracking is now practically unusable for time series analysis unless one has access to the fully corrected (past-tense) data set from the Louisiana Department of Health. IF the data were reliable, the challenges for modelling would be to reflect measures such as mask wearing, social distancing and social density within geographic areas to map possible patterns of transmission and find effective cut points if possible, instead of just following standard compartment modeling. I think that social considerations are becoming as important if not more important than disease mechanisms in accurately modelling or predicting infection spread (anti-mask

movements, refusal to distance/ close businesses such as bars sometimes couched in political messages, etc.).

EN: Data related to pandemic are coming from various sources, they are collected for various - and often disconnected – purposes, in various formats and in different scales. In order to learn from the obtained measurements and information, we often should convert, standardize, and harmonize information to bring the data from different scales into common grids. The challenges are often to decide what is the proper scale and how to create scale-free modeling environment that could accommodate fat-tailed distributions, fractal structures, complex nonlinearities, and feedback loops, all the properties of complex systems.

2. *How do you see the role of the scientific community (complex system science, data analytics, biostatistics, modeling, forecasting, etc.) in developing research agenda that can be translated into evidence-based environmental and health policies and actions relevant to the COVID-19 pandemic?*

KL: The scientific community can have a substantial impact as state and local departments of public health are overwhelmed with surveillance data collection and contact tracing efforts. There is a window for biostatisticians, modelers and GIS users to directly contribute to COVID-19 responses. In developing a research agenda for policies and actions I think we need to have more direct collaborations with those state and local partners so we can shorten the time-range between analysis and action. Through community collaborations researchers can provide:

- Content and technical expertise and skills to analyze
- Provide code to integrate with a surveillance system
- Run models to inform policy-decisions
- Build code to automate steps for mapping of cases and hospitalizations can have a large impact on decisions informing resource allocation

If a goal is to develop a research-to-action agenda, then it requires bringing in those key partners to have the work we are all doing directly serve our communities

DB: I agree completely with Kevin in this area. From the beginning there was a problem of data availability- first in getting variables other than positive cases and deaths (such as co-morbidities, demographic characteristics, or positivity rates), and now with the massive amounts of data available with little to no standardization and a severe lack of information at more granular levels especially in more rural areas of the country. Due to the independence of states and nearly complete absence of national leadership in data collection I believe it falls to the scientific community to take care of its own data needs. There is a huge opportunity for crowd sourcing on multiple levels, but the main one I'd like to see focused on is data collection: Specifically, standardization of recording and working at getting more granular data, all held in easily accessible repositories where researchers can pull data sets much like they do from the CDC or Census Bureau. Obviously if the servers were housed in one location this would need to be funded, and that would have to be worked out. But I believe this is possible and necessary for not just this pandemic but future pandemics to get information processed and disseminated faster for analysis, resulting in more effective policy decisions.

EN: We have to pay more attention to scientific communication and learn how communicate effectively across disciplines. We also have to master scientific communication and look for way to communicate well with the broad audience. It is not easy -- to strive for rigor definitions and clear terminology yet avoiding technical jargon. We could learn more from other disciplines and encourage others to adhere best practices and principles in data standardization.

3. *What are the long-term implications for the actions that our community at large takes today?*

KL: Similar to what I wrote below for 3 and some of 4. Also, I believe anecdotally though my own current work with Massachusetts DPH there is a need and desire for help that departments of public health are looking for to assist them with analyzing and interpreting their own data. This is a critical necessity that experts in our community can fill to help administrators make informed policy decisions. With an eye towards vaccine distribution this could mean developing maps and models to inform how and where to help deploy mobile clinics to maximize distribution to vulnerable populations under limited resource scenarios.

DB: I believe we are at a crossroads where the scientific community can fill in informational or analytical gaps that are growing in some areas that used to be taken care of by governmental organizations or worry more about funding or enrollment rates and be held back by what has always been said to be impossible.

EN: These turbulent times brought opportunities to build collaborations, reflect on our own research from various perspectives. It also raised important questions related to the pace of science: on one hand we recognize the need to rash to produce rapid diagnostics and vaccine, develop dashboards for data collection and distribution systems. This goes alone with societal and logistics changes - to produce and deliver PPE; to enable disinfection and distancing, working from home, food delivery. On the other hand, the scientific inferences and deep understanding require us to go slow and thoughtfully, recognize and consider long-term consequences, revisit our findings and conclusions with new data, admit limitations and strengths, and remember that our work is not a popularity contest.

4. *What can we do to help shift the current narrative and advance awareness and understanding of the pandemic and it's impacts on many aspects of our life, including the human impacts on the environment?*

KL: The majority of work has been focused on improving our understanding of the vulnerabilities and forecasting of COVID-19 to inform action to mitigate virus spread. Additional research should also be considered on the long-term impacts COVID-19 directly has on health and indirectly through social determinants of health. COVID-19 has already been shown to have direct impacts on mental health and social determinants of health such as food insecurity, housing stability and unemployment. Modeling and mapping long-term health impacts of that COVID-19 has had on social determinants of health are going to be key areas to improve our understanding of just how completely this pandemic has impacted our lives. As an example there has been a devastating impact on retail food environment with over 100,000 restaurants closing in the USA since the pandemic began. This is leading to a substantial shift in healthy food access that is simultaneously impacted by food insecurity due to economic downturn. These types of COVID-19 impact studies can also provide a deeper understanding of the health benefits

that policies such as eviction moratoriums and federal spending on supplementing WIC and SNAP could have on improving the long-term health of vulnerable populations.

DB: I think the scientific community really needs to stress that masks, social distancing, and stay at home orders were all done before in 1918 and did not end up as a totalitarian state. We need to be clearer about what exactly this disease does even if it doesn't kill you, because consequences can be dire even if you live. This needs to be communicated to the public in a way they can understand, and the scientific community should be blitzing social media with unified messages that hammer home the seriousness of what is going on, the consequences of certain actions, and how certain measures make it better.

EN: Any crisis reveals societal deficiencies. COVID reveals deficiencies in health systems, infrastructure, ability to lead and govern, protect population health and welfare, preserve economic reliance and resilience. It also reveals strength and limitations of our education systems – we all went through the need to adapt and change. It is useful to reflect on how we had changed our views, perspectives, and practice? what we can add to knowledge, skills and attitudes in high education given the experience during the pandemic? what can and should be retained after these times?

Elena Naumova
TIES Member (since 1997)

Note from TIES'20 Virtual Conference Discussion on Career Path

Reflections on the "Career path on Statistics and the Environment" Roundtable Discussion

The three panelists, **Peter Guttorp**, **Megan Higgs** and **Ashley Steel**, each spent five minutes describing their career path and then opened the floor for questions. The panelists, though all North American, had followed very different paths from one another and had ended up in academia, as a freelancer, and in an international organization. The session encouraged students to consider less traditional paths and all the skills beyond calculation that are essential both to a happy individual career and to a strong community of statisticians. The Q&A session brought out the perhaps surprising flexibility in the field of statistics, the possibility to change paths even when you are "over 50," and the value of the TIES community for its small conferences, informal mentoring, networking, collaboration and friendship.

Asley Steel
TIES Member

Stay Connected: Upcoming TIES/ISI Conferences and Membership

TIES/ISI Conferences:

Due to the current pandemic, the TIES conference which was supposed to be held in London on the 20-22 of September 2021 will be moved online. We will have a joint initiative with the GRASPA conference (June 7-9, 2021) which is also the 2021 European

regional conference of TIES and a Satellite Meeting of the 2021 63rd World Statistics Congress. The TIES'2021 conference will run over three days in October-December 2021 (one day every month). There will also be satellite short courses delivered in July-September. Please stay tuned for more details on the website as soon as they become available.

Spatial and Temporal Statistics Symposium (STSS):

This virtual symposium mainly focuses on the development and collaboration between PhD students in spatial and temporal statistics to discuss recent developments in methodology and applications in spatial and temporal statistics. STSS will be held during February 17-19, 2021.

TIES/ISI membership:

Please check the link for more details about TEIS membership fees. If you are interested in the prestigious status of ISI elected member, please take a look at the ISI webpage. There is an exciting road ahead, and I look forward to your contributions and support to keep strengthening TIES and the ISI mission.

Best wishes,

Lelys Bravo de Guenni
TIES President 2019-2021

Meet TIES new member

Meet our new member - Dr. **Tania Mercedes Alarcon Falconi**, the Recipient of the 2015 TIES-Wiley Best Student Presentation Award.


Tania Mercedes Alarcon Falconi

I am Senior Scientist in the Advanced Analytics division at Environmental Health & Engineering, Inc. and an Adjunct Assistant Professor at the Friedman School of Nutrition Science and Policy at Tufts University in Boston, MA, USA. I am interested in analysis and visualization of time-referenced data. As a doctoral student, I attended the 2015 TIES Conference held in the UAE, where I was awarded the TIES-Wiley Best Student Presentation Award. I presented my work on spatiotemporal uncertainties in the analysis of water quality changes between source and point-of-use. This paper, entitled "Quantifying tap-to-household water quality deterioration in urban communities in Vellore, India: The impact of spatial assumptions", is now published in the *International Journal of Hygiene and Environmental Health*.

The TIES Conference is one of the most inclusive and stimulating conferences I have attended. The welcoming and joyful atmosphere of the conference strengthened my confidence and desire to continue to pursue a career in data analytics. I am currently working on time series analysis of energy consumption in hospitals; assessment of the impacts of renewable fuels on greenhouse gases, air quality, and public health; and collection, analysis, and visualization of COVID-19 data for schools in the Northeast, USA.

As a member of TIES, I look forward to contributing to the organization, presenting my work at future conferences, and finding opportunities to collaborate with TIES members.

Tania Mercedes Alarcon Falconi, Ph.D.
TIES Member (since 2021)

Tania Alarcon Falconi – Recipient of the TIES-Wiley Best Student Presentation Award at the TIES Conference in UAE, 2015

Note from Elena Naumova, the Publications Officer

Last fall **Alessandro Fasso** and I had proposed a short course on **Building technical editing and science communication skills for 21st Century** for the ISI Short Course Programme of 2021/2022. We recognize that a single most difficult task of a science journal editor is to identify, nurture, and retain talented science writers and reviewers, who could masterfully creatively communicate to science to peers and general audience. The objective of the course is to provide tools and resources to stellar students, young promising researchers, and seasoned scientists and practitioners in developing and honing their skills in technical writing, manuscript reviewing and editing. This course aims to demystify the editorial process and demonstrate a strong training potential of offering constructive feedback to peers and engaging in science communication at all stages of the research and practice endeavors. For the early career researchers and practitioners, this course will help to find their voices and establish their independent paths. For authors with limited publishing and reviewing experience this course will help to build skills, find their voices, and instills self-confidence and self-worth. For senior authors, this course will offer paths to share their knowledge and wisdom. For ISI and TIES members, this course will illustrate a broad range of publications supported by ISI' societies, including *Environmetrics* and highlight opportunities and available resources. We strongly believe that effective communication of science is the essence of humankind's progress in the 21st Century.

ISI had received 53 excellent proposals but were only able to select 20 short courses. We are happy to be part of the team and start the preparation for launching the course in May-June 2021.

Thanks to many scientists for raising their voices to improve collaboration, increase respect for science, and advance awareness of complex environmental issues. I am happy to hear from TIES members interested in building collaborations and sharing own experience and research networks. As Publications Officer I am committed to making stronger ties among TIES members, to help all getting to know each other, your passions, achievements, needs, and inspirations.

Stay safe, well, and healthy!

Elena Naumova
TIES Publications Officer 2019-2021