



## Newsletter

Volume 20, No. 2, August 2014

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**Editor:** Ayesha Ali

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### In This Issue:

1. A Message from the President
2. TIES News
3. Environmetrics Conferences
  - 3.1. Forthcoming Conferences
  - 3.2. Meeting Reports
4. Short Courses and Workshops
5. Recently or soon-to-be Published Books
6. TIES Board of Directors

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### 1. A Message from the President,

**Bronwyn Harch**

[president@environmetrics.org](mailto:president@environmetrics.org)

*Queensland University of Technology, Brisbane, Australia*

Dear TIES members:

*Greetings*

G'day! A time for transitions... Over the past months I have been transitioning from my role in a federal government agency to academia. After spending close to 19 years in one "dimension" of

Australia's innovation sector and having moved to another dimension of the innovation sector – it has been comforting to know some issues never change regardless of the innovation organisation you are in, ... but sobering to be very aware of the contrasts!

Much like the mission statement of our Society, both organisations are focused on development and use of research outputs by industry and government – with an emphasis on research quality, research impact, collaboration and addressing significant global issues. The difference of course is in "how" this is achieved, both from a funding perspective, a mobilization of capability or capabilities to address the challenges and how the organisations provide incentives and awards for achieving multidisciplinary outcomes at the appropriate scale with adoption by industry and government or via commercialization pathways. Like all transitions, the "ride" is the real buzz, and you must keep your eyes on the "destination"!

*TIES Transitions*

The TIES-ISI Taskforce (which is providing advice to TIES and ISI on pros and cons of various options for a long term partnership - including sustainability of administration and financial matters) has meet on a number of occasions and outputs to date from the Taskforce has been 1) a consideration of the "mutual

benefits” of the TIES-ISI Partnership, and 2) identification of the key risks to the TIES-ISI relationship. The mutual benefits are clear and the key risks (TIES being a small society, lack of service agreement for overhead and administration fees, resolving outstanding TIES payments to ISI and considering the need for incorporation of TIES in Canada) are now the focus of a subcommittee of the Taskforce.

The TIES2014 AGM (part of [TIES2014](#) in Guangzhou, China over December 15-18, 2014) will be a critical meeting to finalise the formal dimensions of the TIES-ISI partnership and TIES continuing status as an Association of TIES. I encourage members to be part of these deliberations by attending [TIES2014](#) – to hear recommendations and to vote on the future of TIES as a Society – a Society with a sustainable and relevant future.

Further details on these updates from the taskforce can be found under the “News and Bulletin Board >> TIES News at ISI” link provided on the TIES website (<http://www.environmetrics.org/>). Please contact me if you have any queries or concerns.

The Newsletter is full of activities that have occurred and activities that are planned.

- [TIES2014](#) in Guangzhou in China over December 15-18th. We have joined forces with the Chinese Society of Environmental and Resources Statistics in organizing this meeting. We are very proud that TIES and a number of its committed members have helped establish this society – particularly through TIES’ first meeting in Beijing China in 2005 (organized by Ray Correll and Quanxi Shao). Note our Abdel-El Shaarawi Award nominations are currently open (please spread the word!) <http://www.environmetrics.org/>
- TIES2015 is being planned for Australia as well (most likely at the Queensland University of Technology, Brisbane). This will be the 25<sup>th</sup> annual meeting of TIES – so we will be ensuring some memorable celebrations! Please send any ideas re the 25<sup>th</sup> celebrations, invited sessions you would like to organize, or ideas for short courses to [bronwyn.harch@qut.edu.au](mailto:bronwyn.harch@qut.edu.au).

Until our paths next cross,  
Bronwyn

## 2. TIES News

### TIES President Move from Industry to Academia

Dr. Bronwyn Harch, President of TIES, has accepted a newly created role at Queensland University of Technology (QUT) as Professor and Deputy Director - Research for the Institute for Future Environments and Assistant Dean of the Science and Engineering Faculty. This role will allow Bronwyn to make connections across the broader Science, Technology, Engineering, and Mathematics (STEM) disciplines and to industry and government dimensions, which she is so passionate about – essentially catalysing research outcomes "for the real world". Congratulations to Bronwyn on this exciting new opportunity!

### Awards

#### Yulia Gel made Fellow of ASA

AEs Yulia Gel will be named Fellow of the American Statistical Association at the association's Joint Meetings this summer in Toronto.

### Editor's Report from *Environmetrics*

By: Walter W. Piegorsch

The Society's journal, *Environmetrics*, is now in its 25th year of operation, and editorial activity continues apace. As many readers know, the journal began in 1990 as a response to the growing need for modern quantitative methods to help us understand environmental problems. Founding editors A. H. El-Shaarawi and I. B. MacNeill responded with gusto: issue 1 of volume 1 in 1990 contained an extensive suite of articles from the First International Conference on Statistical Methods for the Environmental Sciences, held 4-7 April 1989, in Cairo, Egypt. Professor J. Stuart Hunter, an early adopter and supporter of the term 'environmetrics,' gave the Keynote Address, which became the journal's first article (doi: 10.1002/env.3170010102). Professor Hunter discussed the blending of physical, chemical, and biological/health sciences that environmetrics represents; the growing interchange,

still underway, of quantitative information on the environment; the need to apply the inferential arts of statistics to the consequent deluge of data, also still underway; and even scripture (Proverbs 11:1). The article is worth reading as much today as it was in 1990.



To celebrate this quarter-century of growth and advancement, the 25th volume will culminate at year's end with a Special Celebratory Issue, collecting together a variety of perspectives on the past, present, and future of environmetrics as an endeavor. It will be exciting to see how these relate to and expand on Professor Hunter's vision from 25 years ago, so stay tuned!

To recap the past year (2013, vol. 24) of journal activities, *Environmetrics* saw:

Papers submitted Jan. 1 - Dec. 31, 2013:

	Overall	Non-special Issues
Submissions	146	129
Decisions made	135/146	118/129
Accepted	51/135 (38%)	39/129 (30%)

Average time (days) from submission to decision:

Submission Type	Article Type	
	Research	Special Issue
Original	39.6	73.9
Revised	30.0	20.7

One Special Issue appeared in 2013: "In Memory of George Casella" to honor the contributions of Prof. Casella and all he did for environmental statistics. Prof. Linda J. Young was the guest editor. See <http://onlinelibrary.wiley.com/doi/10.1002/env.v24.5/issuetoc>

A number of new special issues are planned for 2014 and beyond -- see the journal's website at

[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1099-095X](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-095X) for more information and to keep up with every issue!

## Forthcoming papers in Environmetrics

For forthcoming articles to be published in the society journal *Environmetrics*, please visit the following link

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291099-095X/earlyview>

## 3. Environmetrics Conferences

### 3.1. Forthcoming Conferences

#### *Already announced*

**TIES 2014: 24<sup>th</sup> Annual Conference of the International Environmetrics Society, Guangzhou, China, 15-19 December 2014**

TIES2014, the 24th annual conference of the International Environmetrics Society, will be held in Guangzhou, China from December 15-18, 2014, jointly with the division of Resources and Environment Statistics, and the Chinese Association for Applied Statistics. The aim is to provide forums for international collaboration in Environmetrics and statistics theory with applications and for interdisciplinary exchanges in Environmetrics and Statistics. Details can be found from the conference webpage: <http://maths.gzhu.edu.cn/ties2014/>

Key Dates:

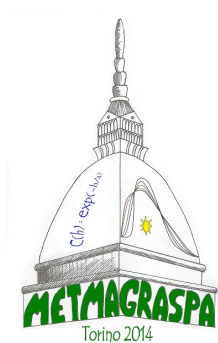
- **Abstract submission** - September 30, 2014.
- **Acceptance of abstracts** - October 15, 2014.
- **Early Bird Registration** - October 31, 2014.

Email contact: [Quanxi.Shao@csiro.au](mailto:Quanxi.Shao@csiro.au)

**METMA VII – GRASPA14: Torino, Italy, September 10-12, 2014**

The joint meeting **METMA VII – GRASPA14** will be hosted by the Department of Economics and Statistics "Cognetti de Martiis" at the University of Torino (IT) from 10th to 12th September 2014, and





brings together two communities with common research interests: the development and use of statistical methods in the environmental sciences. The meeting will also be a **TIES Regional Conference**. METMA VII will be the Seventh International Workshop on Spatio-Temporal

Modelling, while GRASPA14 represents the 2014 meeting of the Research Group for Statistical Applications to Environmental Problems. More information at:

[www.graspa.org/metmagraspa](http://www.graspa.org/metmagraspa).

### Joint Graybill/ENVR Conference, Colorado, US, September 7-10, 2014

The Colorado State University Statistics Department and the ASA Section on Statistics and the Environment (ENVR) are pleased to announce the joint Graybill/ENVR conference “Modern Statistical Methods for Ecology”, to be held on September 7-10, 2014, in Fort Collins, Colorado. This also serves as the 2014 biennial ENVR Workshop.

Full information is available on the website <http://www.stat.colostate.edu/graybillconference/>

### 60<sup>th</sup> ISI World Statistics Congresses, Rio de Janeiro, Brazil July 26-31, 2015

This biennial conference will be organized by Brazil's central bureau of statistics and will be held in Rio de Janeiro, Brazil from July 26-31, 2015. It serves as the main activity of the ISI for which all ISI Associations, Committees and members meet for one week. ISI-WSC 2015, being in Rio de Janeiro, is sandwiched between this year's 2014 FIFA World Cup Games and the 2016 Summer Olympic Games, and promises to be an exciting meeting not to be missed!



Our TIES Representative, Quanxi Shao, worked diligently on the Scientific Programme Committee to assess all submitted Invited Paper Session (IPS) proposals, and four TIES proposals were approved.

- “Advanced random effects modelling of environmental and natural resources data.” (Renjun Ma, Quanxi Shao)
- “New developments in spatial sampling” (Sarah Nusser)
- “Modern methods of environmental epidemiology: from remote sensing to random graphs and social media” (Abdel El Shaarawi, Richard Kiang)
- “Spatial statistics for natural hazard modelling” (Jorge Mateu, Serge Guillas)

### TIES-GRASPA 2015, Bari, Italy, June 11-12, 2015



[GRASPA](#) is the Italian research group for environmental statistics. It has been active since 1995 and has become the “permanent working group” of the Italian Statistical Society ([SIS](#)) since May 2013.

GRASPA-SIS promotes statistical and interdisciplinary research in the field of environmental quality, safety and sustainability including air and water quality, epidemiology, climate, earth science and ecology.

The GRASPA 2015 conference is an opportunity to share research interests related to the development and the use of statistical methods in environmental sciences. This conference fosters methodological developments and applications in fields such as spatial and spatio-temporal modelling, functional data analysis, spatial and spatio-temporal sampling and extreme values. Moreover it endorses co-operation and interchange of views among statisticians, academics from environmental sciences as well as practitioners from government and independent environmental agencies.

GRASPA 2015 is the 2015 European regional conference of [The International Environmetrics Society](#). The meeting will have plenary, invited and contributed sessions. An extensive poster session will be held as well. A selection of invited/contributed papers will be published in scientific journals.

The conference is hosted by [Università degli Studi di Bari Aldo Moro](#) and sponsored by [Dipartimento di Scienze Economiche e Metodi Matematici](#) -



[Università degli Studi di Bari](#) and [Dipartimento di Scienze Economiche, Matematiche e Statistiche - Università degli Studi di Foggia](#).

The city of Bari stands ashore with its white limestone castle and the Basilica of Saint Nicholas, built in the heart of the historical town as a giant shrine sheltering the relics of the Saint. The territory of Bari is bejeweled by UNESCO world heritage Trulli in Alberobello and several medieval cities overlooking the beautiful southern Adriatic coast. [Visiting Puglia](#) allows spending beautiful and relaxing vacations at close touch with inspiring history from Gargano and Daunian down to Salento. Almost 50 Km away is the fascinating town of [Matera](#) with the renown extensive cave-dwelling districts, the sassi, UNESCO world heritage and 2019 European [Capital of Culture](#) candidate city.

#### *Deadlines:*

September 30, 2014 – Fees details

December 31, 2014 – Abstract and poster details  
(template from website)

March 15, 2015 – Abstracts deadline (invited/  
contributed talks and posters)

April 15, 2015 – Contribution acceptance

*Contact:* Alessio Pollice

Web: <http://www.graspa.org/graspa2015>

Email: [graspa2015.dsemm@uniba.it](mailto:graspa2015.dsemm@uniba.it)



### **ANU Special Year Conference: Robust Statistics and Extremes, September 08 – 11, Canberra, Australia**

*Noel Cressie and Walt Davis, University of Wollongong, Australia*

The "Robust Statistics and Extremes" conference is the second main event in a "Special Year for Stochastics and Statistics" sponsored by the Mathematical Sciences Institute of the Australian National University. The conference will bring together prominent Australian and international experts to provide researchers and students with an opportunity to hear up-to-date state-of-the-art expositions. September is Springtime in Australia

and the Canberra location offers an attractive environment at an optimum time of year for pleasant weather. The ANU Campus is centrally located with accommodation and conference facilities permitting close networking and interaction among participants. For more info click here: [maths.anu.edu.au/events/robust-statistics-and-extremes](http://maths.anu.edu.au/events/robust-statistics-and-extremes)

### **3.2 Meeting Reports**

#### **StatsWeek 2014 at the University of Wollongong**

The first StatsWeek at the University of Wollongong, Australia, was held from February 3-7, 2014. StatsWeek consisted of a short course on spatio-temporal statistical modelling by Prof. Peter Diggle (Lancaster U) and Prof. Noel Cressie (U Wollongong), a short course on non-parametric statistics by Prof. Olivier Thas (Ghent U), and the sixth conference of the Applied Statistics Education and Research Consortium (ASEARC).

The Diggle-Cressie short course featured environmental applications in each of its modules. The sixth ASEARC conference featured a keynote talk by Dr. Bronwyn Harch (CSIRO<sup>1</sup>) on the conference theme of statistical collaboration and a public lecture by Prof. Diggle on disease mapping. Papers presented at the ASEARC conference of interest to the TIES community included: Dr. Jay Ver Hoef (NOAA, USA) on graphical methods for stream networks; Prof. Brian Cullis (U Wollongong) on optimal design for agricultural experiments; Dr. Ian Renner (U Newcastle) on presence-only methods in ecology; and Prof. Cressie on satellite retrievals of atmospheric CO<sub>2</sub> data.



Prof. Noel Cressie (left) and Prof. Peter Diggle

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<sup>1</sup> Now at QUT

Over 100 people from universities, government agencies, and private research, hailing from three countries, attended at least one of the StatsWeek events, including a full house of 36 for the Diggle-Cressie short course.

StatsWeek was hosted by the National Institute for Applied Statistics Research Australia (NIASRA) at U Wollongong. The Diggle-Cressie short course was also sponsored by the Statistical Society of Australia, Inc. (SSAI) and the Commonwealth Scientific and Industrial Research Organization (CSIRO). Prof. Diggle's public lecture was co-sponsored by the U Wollongong's Illawarra Health and Medical Research Institute.



Sixth ASEARC Conference invited speakers (left to right): Prof. Geoff Prince (Australian Mathematical Sciences Institute), Dr. Doug Shaw (SSAI), Dr. Siu-Ming Tam (Australian Bureau of Statistics) and Dr. Bronwyn Harch (CSIRO).

### **Pan-American Advanced Study Institute, Búzios, Brazil, June 16-26, 2014**

The PASI on Spatiotemporal statistics was funded by a National Science Foundation PASI grant. Additional funding came from the NSF-funded STATMOS network, the Pacific Institute of Mathematical Sciences in Canada, the Nordic Council network SARMA, the UK network CliMathNet, the International Statistical Institute, and six Brazilian agencies (CAPES, CNPq, FAPERJ, INCTMAT, UFRJ and IMPA).

We advertised the Institute at a variety of web sites and mail lists. 123 applications were made to the registration page. Those that came in before the application deadline were evaluated by the steering

committee (Lelys Bravo, Venezuela, Charmaine Dean, Canada, Peter Guttorp, USA, Eliane Rodrigues, Mexico and Alexandra Schmidt, Brazil). Funding offers were made continuously starting in December, 2013, and continued as long as funds were available.

The Institute had a total of 81 participants, including 18 instructors, 54 winter school participants and 9 workshop participants (most of the instructors and all the winter school students also participated in the workshops). 32 of the participants were female. Of the participants, 16 came from Brazil, 4 from Canada, 4 from Mexico, Central America and the Caribbean, 11 from Nordic countries, 8 from South America except Brazil, 32 from USA and 6 from other countries.



Participants to PASI: L-R Jony Arrais (Brazil), Henrike Häbel (Sweden), PatheepaJeganathan (US), Estelina Capistrano (Brazil), Farzaneh Safavimanesh (Denmark), Mariana del Pilar (Brazil) and Joao Pereira (Brazil). Courtesy of Estelina Capistrano.

The main feature of the Institute was the Winter School. It was divided into seven sections (Spatial statistics, Covariance functions, Markov random fields, Multivariate spatial statistics, Spatial extremes, Spatial point processes, and Misalignment). Most sections had a three-hour segment beginning with a theoretical/methodological lecture, then a practicum where students were using R software packages to analyze data, and finally an applied lecture on the same topic by a different lecturer. In most cases the person responsible for the package was leading the practicum. The covariance function section had three such segments. Two instructors participated remotely using Skype. All lectures and practica are available on the Institute web site:

[http://www.stat.washington.edu/peter/PASI/PASI\\_2014.html](http://www.stat.washington.edu/peter/PASI/PASI_2014.html).

We did a preschool assessment of participants' familiarity with the topics covered. There was generally lower familiarity with extremes and point processes, and high familiarity with R.

The postschool assessment evaluated each lecture and practicum separately, asked about the effectiveness of the workshops as part of the structure of the Institute, and the usefulness of the practica. It was generally agreed that the workshops were difficult but interesting, and that the practica were extremely useful for understanding the material. The opportunity to network, both with the instructors and with the other students, was also a great benefit.

One student emailed the organizers to say,

*"I appreciate from bottom of my heart the opportunity that was given to me to attend the PASI 2014. As a graduate student, my goal was to learn the concepts of spatio-temporal modeling. But, instructors of PASI 2014 have taken us to another level. I have not only learned the concepts, but also have received the hands-on experience on applying them to real data sets and identified the open problems in spatio-temporal modeling. I'll share all the information with my advisor and will contribute to this field. I also would like to thank all the arrangements done by PASI organizing committee and the great greeting and treating from your students."*

One of the instructors, who had to leave after the first week, said, "*PASI was a terrific conference. It is a rare event when I'm sad to leave a conference, but I wasn't ready to go home. I hope the rest of the conference goes well.*"

A second part of the Institute was a workshop on nonstationary spatial covariance models. There are several different approaches to model nonstationary covariances, and the workshop was intended to evaluate these different approaches, determine under what circumstances they can be used, and developing software tools to make them accessible to the community. In order to enable some comparisons, the organizing committee had collected some datasets in advance. Some workshop participants had analyzed some of these in advance, while other participants did some analysis during the workshop. These tasks could not all be finished in the four days allocated to the workshop, but a start has been made, and tasks

have been allocated to particular individuals to proceed towards the goals. The winter school participants also attended the workshop. The idea was that they would have been receiving a technical background to enable them, at least partially, to follow the discussions between the workshop scientists. The post-Institute assessment indicated that this had been somewhat successful for this workshop. Particularly, several winter school students commented on how valuable it was to listen to scientific discussions and disagreements.

The third part of the Institute was a more traditional workshop, this time on multivariate spatial statistics. Unfortunately, several of the participants (including the main organizer) had to cancel their appearance, in many cases only shortly before the Institute started. In spite of this, the workshop had some valuable open discussions about open problems and software availability. The winter school participants found much of the material presented too technical for their understanding, but appreciated the presentation of open problems in the field. One afternoon was dedicated to student/postdoc presentations of their research, and one to senior researcher presentations.

### **International Biometric Society conference: Florence, Italy.**

*Ross Darnell, CSIRO Australia*

The 27<sup>th</sup> IBC was held in Florence on 6-11 July. Around 900 folk registered and during the 4 days of conference presentations, many of the sessions were filled to capacity. There were up to 5 concurrent sessions, covering a range of application areas including spatial statistics, ecological and agricultural research, genetic research, medical diagnostics research, and longitudinal methods, with a special session devoted to missing or partially observed data.

The venue was the Palazzo dei Congressi, which is adjacent to the main Florence railway station. The conference dinner was held at the restaurant "La Loggia" which has a superb outlook over the city of Florence. Wednesday was kept free of talks so attendees could enjoy what Florence has to offer the visitor. I visited the Museo Galileo and within the museum the brachistochrone descent model was my favourite installation. Many of the attendees who work in ecological research had attended the ISEC conference held in Montpellier, France the week before the IBC.



#### 4. Short Courses and Workshops

##### **SAMSI and NCAR The International Surface Temperature Initiative, July 08 – 16, Boulder, CO, USA**

This workshop will take place over one and a half weeks. There will be a very limited number of introductory lectures to introduce the subject and to set up working groups. The rest of the time will be devoted to intensive study of climate data and statistical methods within working groups, including testing out specific ideas, exploring the historical temperature record, and examining synthetic datasets where known problems have been introduced.

[www.samsi.info/workshop/summer-2014-international-surface-temperature-initiative-july-8-16-2014](http://www.samsi.info/workshop/summer-2014-international-surface-temperature-initiative-july-8-16-2014)

##### **SAMSI Mathematical and Statistical Ecology Opening Workshop, Research Triangle Park, North Carolina, USA, August 18 – 22, 2014**

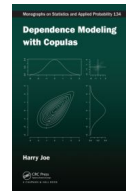
Ecological modeling has developed in two quite different ways. On the one hand, theoretical ecologists develop mathematical models that are analyzed using traditional tools of applied mathematics, such as PDEs and dynamical systems, which are then used to establish properties such as resilience (the ability of a system to withstand perturbations) or tipping points (conditions under which a system is transformed permanently into a new state). On the other hand, statisticians and data analysts have developed increasingly sophisticated statistical tools, such as Bayesian hierarchical models applied to large spatio-temporal datasets, but often without detailed consideration of nonlinear dynamics. Statistical tools used by ecologists are often different from those used by statisticians and there is a need for a transfer of expertise in both directions. This program will bring together three groups of researchers - statisticians, mathematicians and theoretical ecologists - to study and develop the interactions among these different approaches. Many of the important issues are multi-scale, e.g. models developed based on their fine-scale behavior are then used to study large-scale behavior of the system. This in turn raises questions about model misspecification, model selection or model averaging, and uncertainty quantification. Finally there is the possibility of using

statistical and mathematical tools for management of ecosystems and the formulation of public policy.

[www.samsi.info/workshop/2014-15-ecol-opening-workshop-august-18-22-2014](http://www.samsi.info/workshop/2014-15-ecol-opening-workshop-august-18-22-2014)

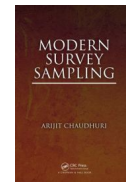
#### 5. Recently or soon-to-be Published

*“Dependence Modeling with Copulas”* by Harry Joe (June 2014), Chapman and Hall/CRC.



Focuses on high dimensional copula models; presents extensive material on dependence and tail properties to assist in copula model selection.

*“Modern Survey Sampling”* by Arijit Chaudhuri (June 2014), Chapman and Hall/CRC.



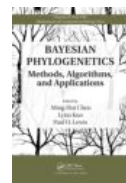
This text starts uses real world examples to relay what a sample intends to communicate to a reader about the unknowable aggregate in a real situation.

*“Multilevel Modeling Using R”*, by W. Holmes Finch, Jocelyn E. Bolin, and Ken Kelley, (June 2014), Chapman and Hall/CRC.



This book reviews and extends standard linear models to multilevel models in a Bayesian context, including longitudinal data and categorical dependent variables.

*“Bayesian Phylogenetics: Methods, Algorithms, and Applications”* by Ming-Hui Chen, Lynn Kuo, and Paul O. Lewis (May 2014) Chapman and Hall/CRC.



This book is aimed at evolutionary biologists, systematists, ecologists, and epidemiologists who seek Bayesian models to help answer detailed phylogenetic questions.

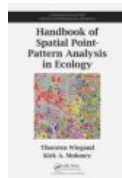
*“Scale in Spatial Information and Analysis”* by Jingxiong Zhang, Peter Atkinson, and Michael F. Goodchild (April 2014), CRC Press.



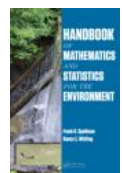
This book provides tools for handling spatial data under the process-pattern paradigm with emphasis on scales of measurement and of spatial variation present in measured data.



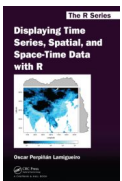
*“Handbook of Spatial Point-Pattern Analysis in Ecology”* by Thorsten Wiegand, and Kirk A. Moloney, (December 2013), Chapman and Hall/CRC. This book shows empirical ecologists how point-pattern analysis techniques can tackle diverse ecological problems without resorting to advanced theoretical details.



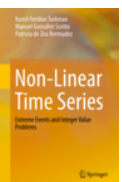
*“Handbook of Mathematics and Statistics for the Environment”* by Frank R. Spellman, and Nancy E. Whiting, (November 2013), CRC Press. This book is a revised version of *“Environmental Engineer’s Mathematics Handbook”*, and focuses on the relationship between principles in natural and environmental processes as used by practitioners for air, water, wastewater, solid/hazardous wastes, biosolids, stormwater operations, environmental economics, and environmental health, safety, and welfare.



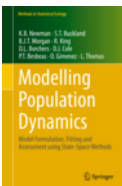
*“Displaying Time Series, Spatial, and Space-Time Data with R”* by Oscar Perpinan Lamigueiro, (April 2014) Chapman and Hall/CRC.



*“Non-Linear Time Series: Extreme Events and Integer Value Problems”* by Kamil F. Turkman, Manuel G. Scotto, and Patrícia de Zea Bermudez (2014), Springer. This book presents both probabilistic and statistical tools for analyzing nonlinear time series, including quasi likelihood methods, sequential MCMC methods and particle filters, with emphasis on the extremal behaviour of nonlinear time series.



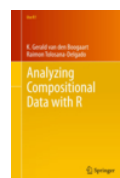
*“Modelling Population Dynamics Model Formulation, Fitting and Assessment using State-Space Methods”* by K. Newman, S.T. Buckland, B. Morgan, R. King, D.L. Borchers, D. Cole, P. Besbeas, O. Gimenez, and L. Thomas (2014), Springer. This book provides a unifying framework for estimating the abundance of open populations subject to births, deaths and movement, given samples of the populations, with focus on vertebrates.



*“Bayesian Hierarchical Space-Time Models with Application to Significant Wave Height”* by Erik Vanem (2013), Springer. This book provides a statistical treatment of space-time models for oceanographic processes based on a Bayesian hierarchical model framework. Presented techniques are also applicable to problems in environmental research, climate sciences and risk assessment.



*“Analyzing Compositional Data with R”* by K. Gerald van den Boogaart and Raimon Tolosana-Delgado (2013), Springer. Focuses on the statistical analysis of compositional data, building from the foundational principles to advanced multivariate methods, using R.



*The Editorial Board would like to encourage TIES members to volunteer for book reviews and to bring new publications to our attention.*

## 6 TIES Board of Directors

Elected members of the TIES Board of Directors:

**President:** Bronwyn Harch  
([president@environmetrics.org](mailto:president@environmetrics.org))

**President-Elect:** Alexandra Schmidt  
([alex@im.ufrj.br](mailto:alex@im.ufrj.br))

**Secretary:** Rosalba Ignaccolo  
([secretary@environmetrics.org](mailto:secretary@environmetrics.org))

**Treasurer:** Sylvia Esterby  
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**Publications Officer:** Ayesha Ali  
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Objectives of the Newsletter include:

- to inform TIES members of happenings within the Society;
- to cover news in latest developments in theory and applications of environmetrics;
- to discuss of a broad range of issues which are of interest to members of TIES and are consistent with the objectives of the Society;
- to facilitate communication between environmental scientists and statisticians about research problems of mutual interest;
- to provide details about upcoming conferences and workshops related to Environmetrics;
- to announce members' news that are worthy of notice or recognition (e.g., awards, prizes and honours received, promotions, appointments, etc.).

Communications, (e.g. contributions, comments and suggestions) regarding this publication should be addressed to the TIES Newsletter editor: Ayesha Ali (aali@uoguelph.ca). As Editor, I would like to encourage TIES members to submit items for publication in the Newsletter. I would like to thank the members who contributed to this issue.