We are grateful for the continued support of the IBC!

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Cambridge University Press

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Message from the IBS President and the IBC 2016 Organizing President

Dear IBC attendees,

We are delighted to welcome you, your families and friends to Victoria for the XXVIIIth International Biometric Conference (IBC 2016) being hosted by the Western North American Region (WNAR) of the IBS.

Laura Cowen and her Local Organizing Committee (LOC) have done a wonderful job in providing a socially and scientifically inviting programme at an outstanding venue. The Victoria Convention Centre provides excellent spaces for formal meetings/scientific sessions and informal conversations/networking activities that are an essential part of every IBC. We are also grateful to Alan Lee and his colleagues at MCI for their work in organizing the meeting.

Fred van Eeuwijk (ANed) and his International Program Committee (IPC) have built the core of the scientific programme by selecting 17 invited sessions from across many different areas of biometry. We have also scheduled some special sessions, including Biometrics and JABES Showcases, an Invited Session from the ISI, and a Statistics in Practice session that has been organized by the German Region and is sponsored by Wiley. Also, please note the Young Statisticians Session on Monday afternoon, where the five awardees of the international competition for funding to attend the IBC will have the opportunity to present their work. In addition, WNAR have also prepared a programme of 12 Invited Sessions and three Young Investigator Award Sessions. Alongside these, we have an extensive Contributed Programme with 39 sessions of oral presentations and Poster Sessions. We would like to thank IPC for all of their work in reviewing abstracts and together with WNAR and the LOC in assembling this extensive programme for the week. Thanks also to all of those who submitted abstracts and who will present their work to make this meeting an interesting and successful scientific event. In addition, we thank Pascale Tubert-Bitter (FR) and her colleagues from the Education Committee who organized the Short Course Programme.

As ever, we are grateful to the continued support of our Executive Director Dee Ann Walker and her colleagues at the IBS International Business Office for helping us to manage the Society and for much of the IBC organization, including handling the submission of abstracts and registrations, and planning for the many IBS governance meetings that will take place over the coming week.

We are looking forward to renewing international friendships and professional contacts and making new ones during the next week. Hopefully, many of you will also join us in Barcelona, Spain for the XXIXth International Biometric Conference in 2018.

We wish you all an enjoyable and productive time.

Elizabeth Thompson
President
International Biometric Society

John Hinde
Organizing President
IBC 2016 Victoria
Message from the Local Organizing Committee

We are delighted to welcome international statistics and biostatistics researchers and practitioners from academia, industry and government to the first IBC to be held on the Pacific coast of Canada. Victoria, traditional territory of the Lekwungen First Nations, is home to the University of Victoria, one of the leading universities in Canada. It is also within 100 km of several world-class academic institutions located in Vancouver, BC and Seattle, Washington, USA. We hope this meeting will be a conduit for sharing research accomplishments and fostering new ideas, and will provide a venue to meet old friends and strike new relationships. Victoria is a popular tourist destination with the “ocean at its doorstep and wilderness in its backyard”. It is also a good jumping off point for taking a cruise up the pacific coastline to Alaska or driving into the Canadian Rockies to visit the natural wonders of Banff or Jasper National Parks. We are grateful for support from the University of Victoria, Canadian Statistical Sciences Institute, American Statistical Association, Pacific Institute for the Mathematical Sciences, and Springer.

We look forward to meeting you!

Laura Cowen
Co-Chair, Local Organizing Committee
IBC 2016 Victoria

Youyi Fong
Co-Chair, Local Organizing Committee
IBC 2016 Victoria
Message from the Chair of the International Program Committee

Welcome to the XXVIII-th International Biometric Conference, the biennial meeting of the International Biometric Society. A large number of people have been working over the last year to produce a scientific program that looks varied, diverse and of high quality. The final program consists of 17 IBS invited sessions, 12 WNAR invited sessions, five special sessions, and 40 contributed oral sessions. In addition, four short courses will be offered and scientific posters will be on display throughout the conference.

Of the people that contributed to the realization of this program, I would like to thank in particular the members of the International Program Committee for reviewing a large number of abstracts, IBC President John Hinde for help on the coordination of the program scheduling tasks, the members of the Local Organizing Committee for the design and completion of the program schedule, and the International Business Office for help in many administrative and organizational matters.

I hope you will enjoy the conference and appreciate the quality of the presentations and posters.

Fred van Eeuwijk
Chair, IPC 2016
IBC 2016 Organizing Committee

Local Organizing Committee 2016

Laura Cowen, Co-Chair, Department of Mathematics and Statistics, University of Victoria
Youyi Fong, Co-Chair, Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center and Department of Biostatistics, University of Washington
Brad Biggerstaff, Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention
Elizabeth Brown, Vaccine and Infectious Disease and Public Health Sciences Divisions, Fred Hutchinson Cancer Research Center
Kate Crespi, Department of Biostatistics, Fielding School of Public Health, UCLA
Marco Carone, Department of Biostatistics, University of Washington
Megan Othus, Fred Hutchinson Cancer Research Centre, Public Health Sciences, Biostatistics and Biomathematics
Rhonda Rosychuk, Department of Pediatrics, University of Alberta
Fred van Eeuwijk, IPC Chair (ANed) (ex-officio)
Dee Ann Walker, Executive Director, IBS (ex-officio)

International Program Committee 2016

Fred van Eeuwijk (Chair) the Netherlands Region (ANed)
Mark Brewer British and Irish Region (BIR)
Stephane Robin French Region (RF)
Hanno Ulmer Austro-Swiss Region (ROeS)
Rachel Fewster Australasian Region (AR)
Pere Puig Spanish Region (REsp)
Charmaine Dean Western North American Region (WNAR)
Andrew Zhou (China)
Dimitris Rizopoulos the Netherlands Region (ANed)
Hans Peter Piepho German Region (DR)
Kristel van Steen (Belgian Region)
Gustavo de los Campos Argentinean Region (RArg)
Alison Smith Australasian Region (AR)
Afrânio Vieira Brazilian Region (RBras)
Laura Cowen LOC Co-Chair Western North American Region (WNAR)
Elizabeth Brown LOC Alternate Representative Western North American Region (WNAR)
## Schedule at a Glance
### Sunday, July 10

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 - 18:00</td>
<td>Registration Desk Open</td>
<td>Pre-Function 1A</td>
</tr>
<tr>
<td>09:00 - 16:00</td>
<td>Speaker Prep Room Open</td>
<td>Westcoast</td>
</tr>
<tr>
<td>09:00 - 15:00</td>
<td>Executive Board Meeting *private</td>
<td>Colwood 1&amp;2</td>
</tr>
<tr>
<td>09:00 - 17:00</td>
<td>Short Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC.01 - Analysis of Life History Data with Multistate Models</td>
<td>Saanich 1&amp;2</td>
</tr>
<tr>
<td></td>
<td>SC.02 - An Introduction to the Joint Modelling of Longitudinal and Survival Data</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td></td>
<td>SC.03 - A Statistical Approach to Machine Learning</td>
<td>Esquimalt</td>
</tr>
<tr>
<td></td>
<td>SC.04 - Design of complex Experiments</td>
<td>Sidney</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>AM Refreshment Break</td>
<td>Pre-Function 1A</td>
</tr>
<tr>
<td>12:30 - 13:30</td>
<td>Lunch</td>
<td>Crystal Ballroom</td>
</tr>
<tr>
<td>15:00 - 15:30</td>
<td>PM Refreshment Break</td>
<td>Pre-Function 1A</td>
</tr>
<tr>
<td>15:30 - 17:00</td>
<td>WNAR Regional Committee Meeting *private</td>
<td>Colwood 1&amp;2</td>
</tr>
<tr>
<td>17:00 - 19:30</td>
<td>Welcome Reception</td>
<td>Crystal Ballroom</td>
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### Monday, July 11

<table>
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<tr>
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<tr>
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<td>Registration Desk Open</td>
<td>Pre-Function 1A</td>
</tr>
<tr>
<td>08:00 - 16:00</td>
<td>Speaker Prep Room Open</td>
<td>Westcoast</td>
</tr>
<tr>
<td>08:45 - 10:30</td>
<td>Opening Session / President’s Address</td>
<td>Lecture Theatre</td>
</tr>
<tr>
<td>10:30 - 17:30</td>
<td>Exhibits &amp; Poster Area Open</td>
<td>Pre-Function 1&amp;2</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td>AM Refreshment Break</td>
<td>Pre-Function 1&amp;2</td>
</tr>
<tr>
<td>11:00 - 12:30</td>
<td>Breakout Sessions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IS.01 - Some Recent Developments in Incomplete Data Analysis in Biometrical Studies</td>
<td>Lecture Theatre</td>
</tr>
<tr>
<td></td>
<td>IS.02 - Modelling Count Data in the Era of Next Generation Sequencing Data</td>
<td>Carson Hall - Salon A</td>
</tr>
<tr>
<td></td>
<td>CS.01 - Survival Analysis 1</td>
<td>Carson Hall - Salon B</td>
</tr>
<tr>
<td></td>
<td>CS.02 - Ecological Research 1</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td></td>
<td>CS.03 - Microarrays and omics 1</td>
<td>Saanich 1&amp;2</td>
</tr>
<tr>
<td></td>
<td>WN.01 - Statistical methods for neuroimaging data</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td>Young Statisticians’ Warm-Up</td>
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</tr>
<tr>
<td>12:30 - 14:00</td>
<td>Lunch Time Break</td>
<td></td>
</tr>
<tr>
<td>12:45 - 13:45</td>
<td>WNAR Regional Advisory Board Meeting *private</td>
<td>Colwood 1&amp;2</td>
</tr>
<tr>
<td>14:00 - 15:30</td>
<td>Breakout Sessions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IS.03 - Combination, Enrichment and Added-value of Omics Data in Modern Clinical Prediction Problems</td>
<td>Lecture Theatre</td>
</tr>
<tr>
<td></td>
<td>IS.04 - New Advances in Underdispersed Count Data Analysis</td>
<td>Carson Hall - Salon A</td>
</tr>
<tr>
<td></td>
<td>CS.04 - Environmental Research 1</td>
<td>Carson Hall - Salon B</td>
</tr>
<tr>
<td></td>
<td>CS.05 - Causal Inference 1</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td></td>
<td>CS.06 - Epidemiology 1</td>
<td>Saanich 1&amp;2</td>
</tr>
<tr>
<td></td>
<td>WN.02 - Statistical Inference in Complex Sampling Designs</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td>14:30 - 15:30</td>
<td>All Committee Chairs’ &amp; Officers’ Meeting *private</td>
<td>Metchosin</td>
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<tr>
<td>15:30 - 16:00</td>
<td>PM Refreshment Break</td>
<td>Pre-Function 1&amp;2</td>
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<tr>
<td>16:00 - 17:30</td>
<td>Young Statisticians’ Showcase</td>
<td>Lecture Theatre</td>
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## Schedule at a Glance

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tr>
<td>16:00 - 17:30</td>
<td>Breakout Sessions</td>
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<tr>
<td></td>
<td>CS.07 - Agriculture</td>
<td>Carson Hall A</td>
</tr>
<tr>
<td></td>
<td>CS.08 - Bioinformatics 1</td>
<td>Carson Hall B</td>
</tr>
<tr>
<td></td>
<td>CS.09 - Clinical Trials 1</td>
<td>Carson Hall C</td>
</tr>
<tr>
<td></td>
<td>CS.10 - Regression 1</td>
<td>Saanich 1&amp;2</td>
</tr>
<tr>
<td></td>
<td>WN.03 - Statistical Analysis of Wearable Sensor Data</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td>16:00 - 17:30</td>
<td>Committee on Communications Meeting *private</td>
<td>Metchosin</td>
</tr>
<tr>
<td>16:00 - 17:30</td>
<td>Education Committee Meeting *private</td>
<td>Langford</td>
</tr>
<tr>
<td>17:30 - 19:30</td>
<td>University of Washington Biostatistics-Statistics Alumni Reception *private</td>
<td>Palm Court (Fairmont Empress Hotel)</td>
</tr>
<tr>
<td>18:00 - Late</td>
<td>Young Statisticians' Mixer *ticket required</td>
<td>Bard &amp; Banker Pub</td>
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</table>

### Tuesday, July 12

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<tr>
<td>08:30 - 16:30</td>
<td>Registration Desk Open</td>
<td>Pre-Function 1A</td>
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<tr>
<td>08:30 - 16:00</td>
<td>Speaker Prep Room Open</td>
<td>Westcoast</td>
</tr>
<tr>
<td>09:00 - 17:30</td>
<td>Exhibits &amp; Poster Area Open</td>
<td>Pre-Function 1&amp;2</td>
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<tr>
<td>09:00 - 10:30</td>
<td>Breakout Sessions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IS.05 - Methodological Challenges in Observational Studies – Current Perspectives and Future Directions in Function Form, Measurement Error and Causal Inference</td>
<td>Lecture Theatre</td>
</tr>
<tr>
<td></td>
<td>IS.06 - Statistical Assessment of the Replicability of Scientific Results</td>
<td>Carson Hall - Salon A</td>
</tr>
<tr>
<td></td>
<td>CS.11 - Ecological Research 2</td>
<td>Carson Hall B</td>
</tr>
<tr>
<td></td>
<td>CS.12 - Genetics 1</td>
<td>Carson Hall C</td>
</tr>
<tr>
<td></td>
<td>CS.13 - Computer intensive methods, software development, and graphics</td>
<td>Saanich 1&amp;2</td>
</tr>
<tr>
<td></td>
<td>WN.04 - Missing Data in Regression: Beyond Existing Modelling Assumptions</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td>09:00 - 10:30</td>
<td>Club of Presidents *private</td>
<td>Metchosin</td>
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<tr>
<td>10:30 - 11:00</td>
<td>AM Refreshment Break</td>
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<tr>
<td>11:00 - 12:30</td>
<td>Breakout Sessions</td>
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<tr>
<td></td>
<td>IS.07 - Recent Developments in Pharmacokinetic and Pharmacodynamic Modeling and Data Analysis</td>
<td>Lecture Theatre</td>
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<tr>
<td></td>
<td>CS.14 - Survival Analysis 2</td>
<td>Carson Hall - Salon B</td>
</tr>
<tr>
<td></td>
<td>CS.15 - Infectious Diseases and Control</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td></td>
<td>CS.16 - Longitudinal data analysis / mixed effects model 1</td>
<td>Saanich 1&amp;2</td>
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<tr>
<td></td>
<td>WN.05 - Advances in Methodology for Causal Inference</td>
<td>Oak Bay 1&amp;2</td>
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<tr>
<td>11:00 - 12:30</td>
<td>Statistics in Practice</td>
<td>Carson Hall - Salon A</td>
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<tr>
<td>11:00 - 12:30</td>
<td>Biometrics Associate Editors *private</td>
<td>Metchosin</td>
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<tr>
<td>12:30 - 14:00</td>
<td>Lunch Time Break</td>
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<tr>
<td>12:30 - 13:45</td>
<td>WNAR Regional Committee *private</td>
<td>Colwood 1&amp;2</td>
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<tr>
<td>13:00 - 14:00</td>
<td>Poster Session 1</td>
<td>Pre-Function 2</td>
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<tr>
<td>14:00 - 15:30</td>
<td>Breakout Sessions</td>
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<tr>
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<td>IS.08 - Two-part Models for the Analysis of Correlated Count and Semi-continuous Data with Excess Zeros</td>
<td>Lecture Theatre</td>
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<tr>
<td></td>
<td>CS.17 - Epidemiology 2</td>
<td>Carson Hall - Salon B</td>
</tr>
<tr>
<td></td>
<td>CS.18 - Topics in Modeling</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td></td>
<td>WN.06 - Recent Methods Development for Cancer Screening</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td>14:00 - 15:30</td>
<td>Statistics in Practice</td>
<td>Carson Hall - Salon A</td>
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</table>
## Schedule at a Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>14:00 - 15:30</td>
<td>WNAR Young Investigators 1</td>
<td>Saanich 1&amp;2</td>
</tr>
<tr>
<td>14:00 - 15:30</td>
<td>Editorial Advisory Meeting *private</td>
<td>Metchosin</td>
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<tr>
<td>14:00 - 15:30</td>
<td>Biometric Bulletin Correspondents’ Meeting *private</td>
<td>Langford</td>
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<tr>
<td>14:00 - 17:30</td>
<td>Conference Advisory Committee *private</td>
<td>Colwood 1&amp;2</td>
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<tr>
<td>15:30 - 16:00</td>
<td>PM Refreshment Break</td>
<td>Pre-Function 1&amp;2</td>
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<tr>
<td>16:00 - 17:30</td>
<td>Breakout Sessions</td>
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<tr>
<td>IS.09</td>
<td>Recent Advances in Bayesian Methods for Causal Inference</td>
<td>Lecture Theatre</td>
</tr>
<tr>
<td>CS.19</td>
<td>Survival Analysis 3</td>
<td>Carson Hall - Salon B</td>
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<tr>
<td>CS.20</td>
<td>Clinical Trials 2</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td>WN.07</td>
<td>A Continuous Approach to Interpreting Forensic DNA Profiles</td>
<td>Oak Bay 1&amp;2</td>
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<tr>
<td>16:00 - 17:30</td>
<td>Biometrics Showcase</td>
<td>Carson Hall - Salon A</td>
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<tr>
<td>16:00 - 17:30</td>
<td>WNAR Young Investigators 2</td>
<td>Saanich 1&amp;2</td>
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<tr>
<td>16:00 - 17:30</td>
<td>Awards Fund Committee</td>
<td>Langford</td>
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<tr>
<td>17:45 - 19:00</td>
<td>Awards</td>
<td>Lecture Theatre</td>
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<tr>
<td>19:00 - 20:00</td>
<td>Regional Officers’ / Awards Reception</td>
<td>Palm Court</td>
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**Wednesday, July 13**

<table>
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<tr>
<th>Time</th>
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<td>Registration Desk</td>
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<tr>
<td>09:00 - 15:00</td>
<td>Speaker Prep Room Open</td>
<td>Westcoast</td>
</tr>
<tr>
<td>CLOSED</td>
<td>Exhibits &amp; Poster Area</td>
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**Thursday, July 14**

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<tbody>
<tr>
<td>08:30 - 16:30</td>
<td>Registration Desk Open</td>
<td>Pre-Function 1A</td>
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<tr>
<td>08:30 - 16:30</td>
<td>Speaker Prep Room Open</td>
<td>Westcoast</td>
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<tr>
<td>09:00 - 18:00</td>
<td>Exhibits &amp; Poster Area Open</td>
<td>Pre-Function 1&amp;2</td>
</tr>
<tr>
<td>09:00 - 10:30</td>
<td>Breakout Sessions</td>
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</tr>
<tr>
<td>IS.10</td>
<td>Robust instrumental variable methods in Mendelian Randomization</td>
<td>Lecture Theatre</td>
</tr>
<tr>
<td>IS.11</td>
<td>Statistical Methods in Imaging Genomics and Brain Connectivity</td>
<td>Carson Hall - Salon A</td>
</tr>
<tr>
<td>CS.21</td>
<td>Survival Analysis 4</td>
<td>Carson Hall - Salon B</td>
</tr>
<tr>
<td>CS.22</td>
<td>Longitudinal data analysis / mixed effects model 2</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td>WN.08</td>
<td>Statistical Methods to Improve Drug and Vaccine Safety Surveillance Using Big Healthcare Data</td>
<td>Oak Bay 1&amp;2</td>
</tr>
<tr>
<td>09:00 - 10:30</td>
<td>WNAR Young Investigators 3</td>
<td>Esquimalt</td>
</tr>
<tr>
<td>09:00 - 12:30</td>
<td>Representative Council Meeting *private</td>
<td>Colwood 1&amp;2</td>
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<tr>
<td>09:00 - 12:30</td>
<td>JABES AE Meeting</td>
<td>Metchosin</td>
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<tr>
<td>10:30 - 11:00</td>
<td>AM Refreshment Break</td>
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<td>11:00 - 12:30</td>
<td>Breakout Sessions</td>
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<tr>
<td>IS.12</td>
<td>Statistician and Scientist: A New Age in Collaboration</td>
<td>Lecture Theatre</td>
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<td>CS.23</td>
<td>Causal Inference 2</td>
<td>Carson Hall - Salon A</td>
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<tr>
<td>CS.24</td>
<td>Microarrays and omics data 2</td>
<td>Carson Hall - Salon B</td>
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<tr>
<td>CS.25</td>
<td>Epidemiology 3</td>
<td>Carson Hall - Salon C</td>
</tr>
<tr>
<td>CS.26</td>
<td>Longitudinal /Mixed models</td>
<td>Esquimalt</td>
</tr>
<tr>
<td>WN.09</td>
<td>Advances in Nonparametric and Semiparametric Inference</td>
<td>Oak Bay 1&amp;2</td>
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<tr>
<td>12:30 - 14:00</td>
<td>Lunch Time Break</td>
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**Schedule at a Glance**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>13:00 - 14:00</td>
<td>Poster Session 2</td>
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<tr>
<td>14:00 - 14:30</td>
<td>IBS Members' General Meeting</td>
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<tr>
<td>14:30 - 16:00</td>
<td>Breakout Sessions</td>
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<tr>
<td></td>
<td>IS.13 - Development and Evaluation of Biomarkers for Predicting Treatment Effects in Clinical Trials: Methodology and Application</td>
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<tr>
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<td>CS.27 - Epidemiology 4</td>
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<tr>
<td></td>
<td>CS.28 - Regression 3</td>
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<td></td>
<td>CS.29 - Medical Research</td>
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<td>WN.10 - Statistical Innovation for Network Analysis</td>
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<tr>
<td>14:30 - 16:00</td>
<td>ISI Showcase</td>
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<tr>
<td>14:30 - 16:00</td>
<td>Budget &amp; Finance Meeting</td>
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<tr>
<td>14:30 - 18:00</td>
<td>Regional Officers' Meeting *private</td>
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<tr>
<td>16:00 - 16:30</td>
<td>PM Refreshment Break</td>
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<tr>
<td>16:30 - 18:00</td>
<td>Breakout Sessions</td>
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<tr>
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<td>IS.14 - Advances in Neuroimaging</td>
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<td>IS.15 - Regularization &amp; Model Selection Mixed Models</td>
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<td>CS.30 - Clinical Trials 3</td>
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<td>CS.31 - Missing and incomplete Data</td>
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<td></td>
<td>CS.32 - Spatial Epidemiology</td>
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<td>CS.33 - Agriculture / biometrics</td>
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<tr>
<td>16:30 - 18:00</td>
<td>LOC &amp; IPC Chairs *private</td>
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<tr>
<td>19:00 - 22:00</td>
<td>Gala Dinner *ticket required</td>
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**Friday, July 15**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08:30 - 13:00</td>
<td>Registration Desk Open</td>
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<tr>
<td>08:30 - 11:00</td>
<td>Speaker Prep Room Open</td>
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<tr>
<td>09:00 - 12:30</td>
<td>Exhibits &amp; Poster Area Open</td>
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<tr>
<td>09:00 - 10:30</td>
<td>Breakout Sessions</td>
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<tr>
<td></td>
<td>IS.16 - Novel Methods and Applications in Spatial and Spatiotemporal Statistics</td>
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<td>CS.34 - Survival Analysis 5</td>
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<td>CS.35 - Bioinformatics 2</td>
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<td>CS.36 - Categorical data analysis</td>
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<td>WN.11 - Novel Statistical Methods for Determination of Patient Classification in Personalized Medicine: Illustrations in Cystic Fibrosis</td>
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<tr>
<td>09:00 - 10:30</td>
<td>JABES Showcase</td>
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<tr>
<td>10:30 - 11:00</td>
<td>AM Refreshment Break</td>
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<tr>
<td>11:00 - 12:30</td>
<td>Breakout Sessions</td>
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<td>IS.17 - Statistics and Fisheries</td>
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<td>CS.37 - Regression 2</td>
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<td>CS.38 - Bayesian methods 1</td>
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<td>CS.39 - Genetics 2</td>
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<td>CS.40 - Topics in Application</td>
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<td>WN.12 - Statistics and Human Rights</td>
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<tr>
<td>12:30 - 13:30</td>
<td>Closing Ceremony &amp; Awards Presentation</td>
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<tr>
<td>13:30 - 14:00</td>
<td>WNAR Annual Business Meeting</td>
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</tbody>
</table>
Canadian Statistical Sciences Institute
Institut canadien des sciences statistiques

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- Workshops and Conferences
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SC. Short Courses

Four Short Course proposals have been selected for presentation just before the International Biometric Conference begins. All Short Courses will take place on Sunday, 10 July 2016 from 9:00 am – 5:00 pm, and are taught by experienced professionals who are experts in their fields.

For detailed descriptions of each short course, including aims and topics, please visit https://biometricconference.org/scientific-programme/.

SC.01: Analysis of Life History Data with Multistate Models

**Presenters:** Richard Cook and Jerry Lawless
Sunday, 10 July 2016
09:00 – 17:00
Saanich 1&2

SC.02: An Introduction to the Joint Modelling of Longitudinal and Survival Data

**Presenter:** Dimitris Rizopoulos
Sunday, 10 July 2016
09:00 – 17:00
Oak Bay 1&2

SC.03: A Statistical Approach to Machine Learning

**Presenters:** Andreas Ziegler and Marvin Wright
Sunday, 10 July 2016
09:00 – 17:00
Esquimalt

SC.04: Design of Complex Experiments

**Presenters:** Andrew Mead and Steven Gilmour
Sunday, 10 July 2016
09:00 – 17:00
Sidney
IS. Invited Sessions

For detailed descriptions of each Invited Session, including aims and topics, please visit https://biometricconference.org/scientific-programme/.

Monday, 11 July 2016
11:00 – 12:30

**IS.01: Some Recent Developments in Incomplete Data Analysis in Biometrical Studies**
Lecture Theatre
Session Chair: Peisong Han
Adaptive sampling for efficient two-phase designs
*Michael McIsaac (Department of Public Health Sciences at Queens University)*
Modeling marginal hazard in the presence of unobserved histories: Does interrupting ART increase the risk of liver fibrosis?
*James Hanley (McGill University)*
Multiple robust fitting of a log-linear model
*Andrea Rotnitzky (Di Tella University, Harvard School of Public Health)*
Analyzing Recurrent Marker Data by Forward, Backward or Time-adjusted Models in the Presence of a Terminal Event
*Mei-Cheng Wang (Johns Hopkins University)*

**IS.02: Modelling Count Data in the Era of Next Generation Sequencing Data**
Carson Hall - Salon A
Session Chair: Jeanine Houwing-Duistermaat
Covariance Estimation for Compositional Data via Composition-Adjusted Thresholding
*Hongzhe Li (University of Pennsylvania)*
Modeling over-dispersion heterogeneity in differential expression analysis using mixtures
*Stephane Robin (Institut National de la Recherche Agronomique, AgroParisTech)*
Highly optimized statistical modeling of genome-scale count data
*Mark Robinson (University of Zurich)*
Methodological Challenges in the Analysis of Longitudinal RNA-Seq Data
*Roula Tsonaka (Leiden University Medical Center)*

Monday, 11 July 2016
14:00 – 15:30

**IS.03: Combination, Enrichment and Added-value of Omics Data in Modern Clinical Prediction Problems**
Lecture Theatre
Session Chair: Bart Mertens
Combining clinical and omics data to construct a predictor and assess its predictive value – comparison of several strategies
*Willi Sauerbrei (University Medical Center Freiburg)*
Added predictive value of omic datasets
*Mar Rodríguez Girondo (Leiden University Medical Center)*
Integrating RNA-seq data from a mouse model and a clinical cohort
*Harald Binder (University Medical Center Johannes Gutenberg University Mainz)*
An efficient procedure to combine biomarkers with limits of detection for risk prediction
*Ruth Pfeiffer (National Cancer Institute, NIH, HHS)*

**IS.04: New Advances in Underdispersed Count Data Analysis**
Carson Hall - Salon A
Session Chair & Discussant: Célestin Kokonendji
Multivariate underdispersion extension
*Célestin Kokonendji (University of Franche-Comté)*
Competition and Underdispersion
*Clarice Demétrio (ESALQ/USP)*
*John Hinde (National University of Ireland)*
Some mechanisms leading to underdispersion
*Pedro Puig (Universitat Autònoma de Barcelona)*
Underdispersion models: models that “fly under the radar”
*Kimberly Sellers (Georgetown University, U.S. Census Bureau)*
Tuesday, 12 July 2016
09:00 – 10:30

IS.05: Methodological Challenges in Observational Studies – Current Perspectives and Future Directions in Function Form, Measurement Error and Causal Inference
Lecture Theatre
Session Chair: James Carpenter
Reference based sensitivity analysis for clinical trials with missing data: some theory and examples
James Carpenter (London School of Hygiene & Tropical Medicine)
Unresolved issues in modeling of functional forms for continuous variables in multivariable analyses
Michal Abrahamowicz (McGill University)
Barriers and challenges to the use of statistical methods for addressing errors in the measurement and classification of outcome and explanatory variables in observational studies
Laurence Freedman (Gertner Institute for Epidemiology, Information Management Services, Inc)
Appearance versus reality: on reconciling the many faces of causal effects estimated in the medical literature
Els Goetghebeur (Ghent University)

IS.06: Statistical Assessment of the Replicability of Scientific Results
Carson Hall - Salon A
Session Chair: Ruth Heller
Assessing replicability of findings across two studies of multiple features
Marina Bogomolov (Technion)
A Regression Framework for Assessing Covariate Effects on the Reproducibility of High-Throughput Experiments
Qunhua Li (Penn State University)
Inferring replicability from the Cochrane Collaboration reviews
Daniel Yekutieli (Tel-Aviv University)
What can be learned from replication studies about ways to increase replicability?
Yoav Benjamini (Tel-Aviv University)

Tuesday, 12 July 2016
11:00 – 12:30

IS.07: Recent Developments in Pharmacokinetic and Pharmacodynamic Modeling and Data Analysis
Lecture Theatre
Session Chair: Joel Dubin
Discussant: Sophie Donnet
Multiscale Modeling for PK/PD Studies
Hulin Wu (University of Texas Health Science Center at Houston)
Bayesian Inference and Uncertainly Quantification for Stochastic PK/PD Models
Martin Lysy (University of Waterloo)
Model-based Bridging of Dose Regimens Supporting Drug Approval: A Case Study or Cross Functional Modeling Collaboration
Jose Pinheiro (Janssen Pharmaceuticals)

Tuesday, 12 July 2016
14:00 pm – 15:30

IS.08: Two-part Models for the Analysis of Correlated Count and Semi-continuous Data with Excess Zeros
Lecture Theatre
Session Chair: Iris Reinhard
Discussant: Geert Molenberghs
The LZIP: A Bayesian latent factor model for correlated zero-inflated counts
Brian Neelon (Medical University of South Carolina)
The changing landscape of zero-inflated models with random effects for count data
D. Leann Long (West Virginia University School of Public Health)
Two-part models for longitudinal semicontinuous data
Valerie Smith (Department of Veterans Affairs)
Discussion
Geert Molenberghs
Tuesday, 12 July 2016
16:00 – 17:30
**IS.09: Recent Advances in Bayesian Methods for Causal Inference**
Lecture Theatre
Session Chair: *Jason Roy*
A New Approach to Causal Inference Using Bayesian Nonparametric Methods
*Jason Roy (University of Pennsylvania)*
Surrogacy Assessment Using Principal Stratification and a Gaussian Copula Model
*Michael Elliott (University of Michigan)*
Bayesian Inference for causal effects on bivariate outcomes with application to the evaluation of a job training program in Luxembourg
*Andrea Mercatanti (LISER Luxembourg Institute of Socio-Economic Research)*
A Bayesian Nonparametric Approach for Fitting Marginal Structural Models
*Kirsten Lum (University of Pennsylvania)*
Unmeasured confounding, large datasets, and the role of Bayesian inference
*Lawrence McCandless (Simon Fraser University)*

Thursday, 14 July 2016
09:00 – 10:30
**IS.10: Robust instrumental variable methods in Mendelian Randomization**
Lecture Theatre
Session Chair: *Simon Thompson*
Instrumental variable assumptions, and their practical interrogation in Mendelian Randomization studies
*Maria Glymour (University of California)*
Weighted median estimators for robust inference in Mendelian randomization
*Stephen Burgess (University of Cambridge)*
Robust Confidence Intervals for Causal Effects with Possibly Invalid Instruments
*Hyunseung Kang (Stanford University)*
Mendelian randomisation analysis of time-to-event endpoints
*Stijn Vansteelandt (Ghent University)*

**IS.11: Statistical Methods in Imaging Genomics and Brain Connectivity**
Carson Hall - Salon A
Session Chair: *Timothy Johnson*
Estimation for bivariate quantile varying coefficient model and its application in DTI data analysis
*Linglong Kong (University of Alberta)*
A Bayesian Group Sparse Multi-Task Regression Model for Imaging Genomics
*Farouk Nathoo (University of Victoria)*
A Bayesian Approach to Dynamic Functional Connectivity Networks
*Marina Vannucci (Rice University)*

Thursday, 14 July 2016
11:00 – 12:30
**IS.12: Statistician and Scientist: A New Age in Collaboration**
Lecture Theatre
Session Chair: *Brian Cullis*
Statistician and Scientist: A new age in collaboration
*Beverly Gogel (Biometrics, The University of Adelaide)*
Before there was data there was...
*Katya Ruggiero (University of Auckland)*
Developing effective collaborations with scientists: experiences of an applied environmental statistician
*Adam Butler (Biomathematics and Statistics Scotland)*
Regularization Methods In Modelling Genotype To Phenotype Relations, A Synthesis Of Statistical And Biological Principles
*Fred Van Eeuwijk (Wageningen University)*
Thursday, 14 July 2016
14:30 – 16:00
**IS.13: Development and Evaluation of Biomarkers for Predicting Treatment Effects in Clinical Trials: Methodology and Application**
Lecture Theatre
Session Chair & Discussant: *Holly Janes*
Adaptive Enrichment Trials for Biomarker-guided Treatments
*Noah Simon (University of Washington)*
Online, semi-parametric
*Eric Laber*
Estimation of optimal treatment allocations for the control of emerging
*Parvin Tajik (Academic Medical Center - University of Amsterdam)*

**IS.14: Advances in Neuroimaging**
Lecture Theatre
Session Chair: *Elizabeth Juarez-Colunga*
Fast, fully Bayesian spatiotemporal inference for fMRI data
*John Hughes (University of Minnesota)*
Predicting Parkinson’s Disease using individualized whole-brain functional connectivity networks
*Benjamin Cassidy (Columbia University)*
Estimating Neuron Fiber Orientation via Diffusion MRI
*Galin Jones (University of Minnesota)*
Statistical issues in pre-processing and group modeling of magnetic resonance image data for neurodegenerative diseases
*Ani Eloyan (Brown University)*

**IS.15: Regularization & Model Selection Mixed Models**
Carson Hall - Salon A
Session Chair: *Samuel Mueller*
Epidemics
*Samuel Mueller*
Joint selection in mixed models using regularized PQL
*Francis Hui (The Australian National University)*
Fully Efficient and Outlier-Robust Estimation in the Linear Model
*Howard Bondell (Statistics, NC State University)*
Weighted inverse covariance estimation for compositional count data with applications to microbiome data
*Jiming Jiang (Statistics, Oregon State University)*

Friday, 15 July 2016
09:00 – 10:30
**IS.16: Novel Methods and Applications in Spatial and Spatiotemporal Statistics**
Lecture Theatre
Session Chair: *Laura Cowen*
Effect of misspecification of correlation structure in spatial frailty model: an application in modelling large scale survival data and simulation study
*Cindy Feng (University of Saskatchewan)*
A High Dimensional Spatiotemporal State-Space Model for Combined Analysis of MEG and EEG data
*Farouk Nathoo (University of Victoria)*
Spatial Analysis of Environmental Bioassays
*Debashis Mondal (Oregon State University)*

Friday, 15 July 2016
11:00 – 12:30
**IS.17: Statistics and Fisheries**
Lecture Theatre
Session Chair: *Marie-Pierre Etienne*
Estimating dynamics, stability, and distribution shifts for fish communities using multispecies spatio-temporal models
*James Thorson (Northwest Fisheries Science Center, NMFS, NOAA, University of Washington)*
A spatio-temporal approach for abundance estimation with zero-inflated biomass data
*Jean-Baptiste Lecomte (Fisheries and Oceans Canada)*
Modelling movement using Stochastic Differential Equations in Fisheries Science
*Pierre Gloaguen (AgroParisTech)*
WN. WNAR Invited Sessions

For detailed descriptions of each WNAR Invited Session, please visit https://biometricconference.org/scientific-programme/.

Monday, 11 July 2016
11:00 – 12:30

**WN.01: Statistical Methods for Brain Imaging Data**
Oak Bay 1&2
Session Chair: Jeff Goldsmith
Statistical methods for neuroimaging analyses of multi-center studies
Russell Shinohara (University of Pennsylvania)
Functional data modeling of dynamic PET data
Todd Ogden (Columbia University)
Scalar-on-Image Regression via Soft-Thresholded Gaussian Processes
Ana-Maria Staicu (North Carolina State University)
Modeling fMRI data for pre-surgical planning via a conditionally-weighted adaptive-smoothing model
Timothy Johnson (University of Michigan)

Monday, 11 July 2016
14:00 – 15:30

**WN.02: Statistical Inference in Complex Sampling Designs**
Oak Bay 1&2
Session Chair: Alex Luedtke
Efficient inference for an additive gene-treatment interaction from a nested two-phase study
Tracey Marsh (University of Washington)
Estimation of Stratified Mark-Specific Proportional Hazards Models for Competing Risks Outcomes under Two-Phase Sampling with Application to HIV Vaccine Efficacy Trials
Peter Gilbert (Fred Hutchinson Cancer Research Center, University of Washington)
Semiparametric causal inference in matched cohort studies
Edward Kennedy (University of Pennsylvania)
Multiple Imputation and/or calibration in twophase designs
Thomas Lumley (University of Auckland, New Zealand)

Monday, 11 July 2016
16:00 – 17:30

**WN.03: Statistical Analysis of Wearable Sensor Data**
Oak Bay 1&2
Session Chair: Russell Shinohara
Predicting human activity using smartphone GPS and accelerometer data
Julian Wolfson (University of Minnesota)
Multilevel Functional Methods for modeling actigraphy data and its application to predicting mortality in the US population
Vadim Zipunnikov (Johns Hopkins University)
24 hour accelerometry data collection, challenges and opportunities
Tiago Barreira (Syracuse University)
Discussion
Jeff Goldsmith (Columbia University)

Tuesday, 12 July 2016
09:00 – 10:30

**WN.04: Missing Data in Regression: Beyond Existing Modelling Assumptions**
Oak Bay 1&2
Session Chair: Julian Wolfson
Robustness against model misspecifications in missing data analysis
Peisong Han (University of Waterloo)
Imputation under informative sampling
Emily Berg (Iowa State University)
Semiparametric efficient inference for possibly misspecified regression models with missing covariates
Gary Chan (University of Washington)
Identifiability of Normal and Normal Mixture Models With Nonignorable Missing Data
Peng Ding (UC Berkeley)
Tuesday, 12 July 2016
11:00 – 12:30

**WN.05: Advances in Methodology for Causal Inference**  
Oak Bay 1&2  
Session Chair: Andrea Cook  
Nonparametric doubly-robust inference  
*David Benkeser (University of California, Berkeley)*  
Adaptive Sampling for Subgroup Analyses  
*Alexander Luedtke (Fred Hutchinson Cancer Research Center)*  
Confidence intervals for means under constrained dependence  
*Forrest Crawford (Yale University)*  
Some Open Issues in Inference based on higher order influence function  
*James Robins (Harvard University)*

Tuesday, 12 July 2016
14:00 – 15:30

**WN.06: Recent Methods Development for Cancer Screening**  
Oak Bay 1&2  
Session Chair: Minsun Song  
A Simulation Model for the Lifetime Exposure to Cigarette Smoking among Individuals Born in the US from 1890-2000  
*Theodore Holford (Yale University)*  
Simulating risk factors for lung cancer to optimize lung cancer screening guidelines  
*Summer Han (Stanford University)*  
The Impact of Time to Diagnostic Assessment on Screening Efficacy  
*Carolyn Rutter (RAND Corp.)*  
A tool for Individualized Coherent Absolute Risk Estimation (iCARE):  
*Nilanjan Chatterjee (Johns Hopkins University, National Cancer Institute)*

Tuesday, 12 July 2016
16:00 – 17:30

**WN.07: A Continuous Approach to Interpreting Forensic DNA Profiles**  
Oak Bay 1&2  
Session Chair: Bruce Weir  
Statistical interpretation of DNA evidence: a brief history of theory and practise  
*James Curran (University of Auckland)*  
Formulation of hypotheses in the evaluation of complex DNA evidence  
*David Balding (University of Melbourne, UCL Genetics Institute)*  
Effects of laboratory and analysis decisions on the LR and its distribution  
*Catherine Grgicak (Boston University)*  
Semi-Continuous vs Fully Continuous Models for the Interpretation of DNA Mixtures  
*Simone Gittelson (National Institute of Standards and Technology)*

Thursday, 14 July 2016
09:00 – 10:30

**WN.08: Statistical Methods to Improve Drug and Vaccine Safety Surveillance Using Big Healthcare Data**  
Oak Bay 1&2  
Session Chair: Jennifer Nelson  
Post-marketing surveillance: What are we hoping for when such is a condition of approval?  
*Scott Emerson (University of Washington)*  
Pooling to estimate treatment effects in distributed networks while respecting privacy concerns: experience from the Canadian Network for Observational Drug Effect Studies (CNODES) network  
*Robert Platt (McGill University)*  
Group sequential monitoring for drug and vaccine safety using inverse probability of treatment weighting in FDA’s Sentinel project  
*Andrea Cook (Group Health Research Institute, University of Washington)*  
Comparing approaches for Confounding Adjustment in Secondary Database Analyses: High-Dimensional Propensity Score versus two machine learning algorithms: Random Forest and Elastic Net  
*Mohammad Karim (McGill University, Jewish General Hospital)*
Thursday, 14 July 2016
11:00 – 12:30

WN.09: Advances in Nonparametric and Semiparametric Inference
Oak Bay 1&2
Session Chair: Scott Emerson
Automating the construction of asymptotically efficient estimators
Marco Carone (University of Washington)
Circumventing the curse of dimensionality in asymptotic efficient estimation
Mark van der Laan (UC Berkeley)
Minimax and Adaptive Estimation of Nonlinear Functionals
Rajarshi Mukherjee (Stanford University)

Thursday, 14 July 2016
14:30 – 16:00

WN.10: Statistical Innovation for Network Analysis
Oak Bay 1&2
Session Chair: Sarah Emerson
Flexible and Interpretable Regression Using Convex Penalties
Daniela Witten (University of Washington)
Graph-Guided Banding for Covariance Estimation
Jacob Bien (Cornell University)
Weighted inverse covariance estimation for compositional count data with applications to microbiome data
Duo Jiang (Oregon State University)
Estimating network structure from electrophysiological brain recordings
Uri Tzvi Eden (Boston University)

Friday, 15 July 2016
09:00 – 10:30

WN.11: Novel Statistical Methods for Determination of Patient Classification in Personalized Medicine: Illustrations in Cystic Fibrosis
Oak Bay 1&2
Session Chair: David Benkeser
Characterizing and Clustering an Adult Cystic Fibrosis Patient Population using Longitudinal Lung Function Measurements
Barbara Bailey (San Diego State University)
Distinguishing disease severity using high dimensional protein markers --a pragmatic approach
Sonya Heitshe (University of Washington, Seattle Children's Research Institute)
A Flexible Mixture Model to Characterize Clinical Personas of Parents of Children with CF
Rhonda Szczesniak (Cincinnati Children's Hospital, University of Cincinnati)
Identification of Pediatric Subjects with Cystic Fibrosis at High Risk of Early Chronic Pseudomonas aeruginosa Infection using a Hidden Markov Multi-state Model with a Frailty Term
Brandie Wagner (University of Colorado, Childrens Hospital Colorado)

Friday, 15 July 2016
11:00 – 12:30

WN.12: Statistics and Human Rights
Oak Bay 1&2
Session Chair: Marco Carone
Estimating the prevalence of human rights abuses: child abductions from El Salvador’s civil war
Robin Mejia (Carnegie Mellon University)
Statistics and Human Rights Research: Current and Historical Examples
Megan Price (Human Rights Data Analysis Group)
Statistics and forensic evidence: The challenges that lie ahead
Alicia Carriquiry (Iowa State University)
Counting Civilian Casualties--Statistics and Human Rights Problems
Nicholas Jewell (University of California, Berkeley)
WNAR Young Investigators 1
Tuesday, 12 July 2016
14:00 – 15:30
Saanich 1&2
Session Chair: Gary Chan
An agent-based data augmentation algorithm for tractably fitting stochastic epidemic models to noisy time series data
Fintzi, Jonathan
Selecting Shrinkage Parameters for Effect Estimation
Keller, Joshua
Parsimonious B-Spline Regression Models via Control Polygon Reduction
DeWitt, Peter
Joint modelling of survival data and longitudinal data, with left-censoring, measurement error, and missing data, with application to HIV vaccine efficacy study
Yu, Tingting

WNAR Young Investigators 2
Tuesday, 12 July 2016
16:00 – 17:30
Saanich 1&2
Session Chair: Nichole Carlson
Statistical inference in partially observed stochastic compartmental models with application to cell lineage tracking of in vivo hematopoiesis
Xu, Jason
Association Testing for Rare Genetic Variants
Sondhi, Arjun

WNAR Young Investigators 3
Thursday 14 July 2016
09:00 – 10:30
Esquimalt
Session Chair: Kai Li
Evaluating New Matrix Pooled Testing Methods to Detect HIV Treatment Failure
Brand, Adam
Ancestry-Specific Allele Frequency Estimation
Zhang, Qian
CS. Contributed Sessions

For detailed descriptions of each Contributed Session please visit https://biometricconference.org/scientific-programme/

**CS.01 – Survival Analysis 1**
Monday, 11 July 2016
11:00 – 12:30
Carson Hall – Salon B

Session Chair: *Anna Barón*

Assessing Prediction Error in Survival Times: Application to Ovarian Cancer
*Altman, Rachel*

Polychotomization of continuous variables in Cox proportional hazards regression models: application to patients with stable COPD
*Barrio, Irantzu*

Metric Learning for Right Censored Survival Outcomes
*Conn, Daniel*

Projections of health indicators for chronic disease under Semi-Markov assumption
*Joly, Pierre*

Use of Sample-based methodology to obtain corrected estimates of retention in care of newly diagnosed HIV positive patients before the initiation of ART in Uganda.
*Nyakato, Patience*

Prostate-specific antigen testing for prostate cancer: Emptying a pool of susceptible individuals?
*Valberg, Morten*

**CS.02 – Ecological Research 1**
Monday, 11 July 2016
11:00 – 12:30
Carson Hall – Salon C

Session Chair: *Laura Cowen*

Simulation-Based Approaches for Designing Studies of Wildlife Populations Using Electronic Tags
*Butler, Adam*

A hurdle mixed model for linking Antarctic Krill presence/absence and density to phytoplankton and environmental factors
*Harrison, Lisa-Marie*

Predicting counts of fish based on zero inflated data in a stream network
*Pereira, Julio*

MLE and Bayesian Approach to Partial Stratification in Two-Sample Capture-Recapture Experiments of a Closed Population with Heterogeneity
*Premarathna, Lasantha*

Rarefaction techniques and a bias in observed richness
*Shimadzu, Hideyasu*

New Zealand master sample using Balanced Acceptance Sampling
*van Dam-Bates, Paul*
CS.03 – Microarrays and omics 1
Monday, 11 July 2016
11:00 – 12:30
Saanich 1&2

Session Chair: Tomi Mori

An on-line CNV detection method for the next generation sequencing data
Chen, Jie

A new algorithm for GWAS panel optimization, applications in plant genetics
Mary-Huard, Tristan

Cancer Outlier Analysis Based on a Nested Two-Way Clustering
Oura, Tomonori

Detecting gene-gene interactions for survival phenotypes using a unified multifactor dimensionality reduction analysis
Park, Taesung

How to learn from a lot: Empirical Bayes in high-dimensional prediction settings
van de Wiel, Mark

Ridge estimation of the VAR(1) model and its time series chain graph from multivariate time-course omics data
van Wieringen, Wessel

CS.04 – Environmental Research 1
Monday, 11 July 2016
14:00 – 15:30
Carson Hall – Salon B

Session Chair: David Affleck

Utilizing prior information in environmental inventory design - experiences from forest inventories
Heikkinen, Juha

Statistical Downscaling of Climate Model Projections of Variables that have Temporal Dependence Structure
Linder, Ernst

Short-Term Forecasting of Atmospheric Data Using Singular Spectrum Analysis
Noguchi, Kimihiro

Modelling Seasonal Rainfall at Fine Time-Scales Using Doubly Stochastic Poisson Processes
Ramesh, Nadarajah

A Test for Tail-Up Spatial Dependence on a Stream Network
Zimmerman, Dale

Bayesian spatio temporal rate change model for incinerator policy evaluation: simulation study
Freni-Sterrantino, Anna
CS.05 – Causal Inference 1
Monday, 11 July 2016
14:00 – 15:30
Carson Hall – Salon C

Session Chair: Mark Seligman

Causal Inference in Randomized Experiments with Partial Compliance
Coggeshall, Scott

Estimating inverse probability weights using super learner when weight-model specification is unknown in a marginal structural Cox model context: An application to multiple sclerosis
Karim, Mohammad

A Class of Semiparametric Tests of Treatment Effect Robust to Measurement Error of a Confounder
Miles, Caleb

Investigating the underlying causal network on European football teams
Ramos Cerqueira, Pedro

Robust Estimation of Propensity Score Weights via Subclassification
Wang, Linbo

Pathway Lasso: Estimate and Select Sparse Mediation Pathways with High Dimensional Mediators
Zhao, Yi

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CS.06 – Epidemiology 1
Monday, 11 July 2016
14:00 – 15:30
Saanich 1&2

Session Chair: Yinshan Zhao

A Joint Modeling assessing the impact of Body Mass Index variation on the Mortality of Incident Elderly Patients on Peritonial Dyalisis
Colugnati, Fernando

A new measure of between-studies heterogeneity in meta-analysis
Crippa, Alessio

Analysis of under-reported data by means of INAR-hidden Markov chains
Fernández-Fontelo, Amanda

Correction for batch effects in nested case-control and case-cohort studies
Samuelsen, Sven Ove

Hypothesis Testing for Treatment Arm Differences in Network Meta-Analyses
Uhlmann, Lorenz

Multinomial Additive Hazards Model to Assess the Disability Burden Using Cross-Sectional Data
Yokota, Renata
CS.07 - Agriculture
Monday, 11 July 2016
16:00 – 17:30
Carson Hall – Salon A

Session Chair: TBD

The incorrect application of experimental designs and the alternative application thereof
Calitz, Frikkie

An Exploration of Statistical Methods for Genomic Selection in Perennial Ryegrass: A New Zealand Study
Catherine Lloyd-West

The progressive meta-method and meta-analysis in application to crop production engineering
Gołaszewski, Janusz

One step at a time: Stage-wise analysis of agricultural experiments using mixed models
Piepho, Hans-Peter

The truth is out there if you look: a barley near-infrared calibration analysis
Russell, Kenneth

Bayesian Semiparametric Mixed Beta Regression for Severity in Plant Disease
Macchiavelli, Raul

CS.08 – Bioinformatics 1
Monday, 11 July 2016
16:00 – 17:30
Carson Hall – Salon B

Session Chair: Brandie Wagner

Sample size determination for the prediction of traits in metabolomics
Hageman, Jos

A Generalized Estimating Equations Framework for the Modeling of Intracellular Cytokine Staining Count Data
Meir, Amit

Excess False Positives in Negative-Binomial Based Analysis of Data from RNA-Seq Experiment
Rocke, David

Batch correction methods for metabolomics data in the presence of non-detects
Wehrens, Ron

An overdispersed and zero-inflated statistical model for identification of differentially abundant genes in metagenomic data
Jonsson, Viktor
CS.09 – Clinical Trials 1
Monday, 11 July 2016
16:00 – 17:30
Carson Hall – Salon C

Session Chair: Ji-Hyun Lee

To randomize or not to randomize – the challenge of individualized oncology trials
Benner, Axel

Inference on treatment efficacy in subgroups and the mixture population, with an application to time-to-event outcomes
Lin, Hui-Min

Modeling the win ratio in clinical trials with multiple types of event
Oakes, David

Assessing Survival Benefit When Treatment Delays Disease Progression
Schoenfeld, David

New Developments in Optimal Adaptive Two-Stage Designs for Single-Arm Trials with Binary Outcome
Kunzmann, Kevin

CS.10 – Regression 1
Monday, 11 July 2016
16:00 – 17:30
Saanich 1&2

Session Chair: Rebeca Aguirre-Hernández

Maximum Likelihood Estimation Of Multivariate Tree Biomass Models From Incomplete Records
Affleck, David

Model Selection and the Cult of AIC
Brewer, Mark

Resampling-based model-building procedures and influential points in multivariable regression
De Bin, Riccardo

Estimating a Population Attribute When Sample Size is Informative
Louis, Thomas

Breakpoint Model for Logistic Regression and Application to the detection of G x E Interactions
Nuel, Grégory

High-Dimensional Hypothesis Testing With the Lasso
Zhao, Sen
**CS.11 – Ecological Research 2**
Tuesday, 12 July 2016
09:00 – 10:30
Carson Hall – Salon B

Session Chair: *Laura Cowen*

- An Empirical Study of the Effects of Sub-sampling In Marine Surveys for Biodiversity Estimation
  
  *Darnell, Ross*

- Using Statistical Modelling to Improve the Resource Efficiency for Measurements on Large Crop Trials for Plant Scientists
  
  *Mortlock, Miranda*

- Exploring ecological relevance in a priori selection of variables for species distribution models (SDMs)
  
  *Pirathiban, Ramethaa*

- Efficient estimation of closed population mark-recapture models in continuous-time
  
  *Schofield, Matthew*

- Statistical Analysis of Trait Variability in Ontogenesis of Epiphytic Lichens
  
  *Sofronov, Georgy*

- New Hidden Markov Models for Removal Data
  
  *Zhou, Ming*

**CS.12 – Genetics 1**
Tuesday, 12 July 2016
09:00 – 10:30
Carson Hall – Salon C

Session Chair: *Jinko Graham*

- Detection of Set-based Gene-Environment Interaction in Families
  
  *Basu, Saonli*

- In search for genetic predictors of longevity and premature mortality: methodological challenges and new findings.
  
  *Fischer, Krista*

- Allelic Versus Genotypic Level Tests For Multivariate Phenotypes
  
  *Grosh, Saurabh*

- SNP genotype calling of tetraploid species: inclusion of parental information and combination with other sources of information
  
  *Gort, Gerrit*

- The Epistasis Boundary: Linear vs. Nonlinear Genotype-Phenotype Relationships
  
  *Sverdlov, Serge*

- Preferential sampling through time when estimating changes in effective population size
  
  *Minin, Vladimir*
CS.13 - Computer intensive methods, software development, and graphics
Tuesday, 12 July 2016
09:00 – 10:30
Saanich 1&2

Session Chair: Ji-Hyun Lee

Randomizing and checking standard and multiphase designs using the R package dae
Brien, Chris

Dynamic Nomograms as a Translational Tool.
Newell, John

Model selection stability with mplot
Tarr, Garth

Bootstrapped Model-Averaged Confidence Intervals
Zeng, Jimmy

BGData: A Suite of R Packages for Linked Memory Mapped Arrays and Computational Methods for Big Biomedical Data
de los Campos, Gustavo

Multiple Factor Analysis and Principal Component Analysis With R and Factominer in Exploratory Data Analysis of White Wines
Ntushelo, Nombasa

CS.14 – Survival Analysis 2
Tuesday, 12 July 2016
11:00 – 12:30
Carson Hall – Salon B

Session Chair: Julie McIntyre

The single-index / Cox proportional hazard mixture cure model: a new modelling approach for the mixture cure model.
Amico, Mailis

A Bayesian joint model for time to malaria and mosquito abundance data from Ethiopia
Belay, Denekew

Competing risk modelling of time-varying drug exposures
Danieli, Coraline

Dynamic prediction of survival using landmarking in large longitudinal observational patient databases: challenges and solutions
Keogh, Ruth

The destructive Poisson-OLLGHN model for survival data with cure rate
Pescim, Rodrigo

Assessing and Modelling informative missing data in survival analysis
Hutton, Jane
**CS.15 – Infectious Diseases and Control**

Tuesday, 12 July 2016  
11:00 – 12:30  
Carson Hall – Salon C

Session Chair: Nicholas P. Jewell

Estimation of the effectiveness of influenza vaccination from household studies  
*Ainslie, Kylie*

Estimating HIV incidence from HIV diagnoses surveillance data: a penalized likelihood approach  
*Alioum, Ahmadou*

Age-Specific Back-calculation to Estimate HIV Incidence  
*Brizzi, Francesco*

Determining the end of an epidemic with human-to-human transmission  
*Nishiura, Hiroshi*

A non-homogeneous proportional-odds model for outbreak data  
*Van den Broel, Jan*

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**CS.16 - Longitudinal data analysis / mixed effects model 1**

Tuesday, 12 July 2016  
11:00 – 12:30  
Saanich 1&2

Session Chair: Rhonda Rosychuk

Robust joint modeling of longitudinal data and clustered competing risks data by downweighting of outlying longitudinal measurements  
*Gumedze, Freedom*

Population-averaged versus subject-specific approaches for longitudinal data with follow-up truncated by death  
*Jacqmin-Gadda, Hélène*

Joint models for nonlinear longitudinal profiles in the presence of informative censoring.  
*Little, Francesca*

Selecting Outcome Measures and Statistical Models in Neurological Clinical Trials That Measure Functional Outcomes  
*Uggen, Tea*

Two-part models with stochastic processes for modelling longitudinal semi continuous data: exact likelihood inference and modelling the overall marginal mean  
*Yiu, Sean*

Multivariate Joint Models for Longitudinal and Survival Data: Predictive Abilities of Tumor Burden in Advanced Colorectal Cancer  
*Rondeau, Virginie*
CS.17 – Epidemiology 2
Tuesday, 12 July 2016
14:00 – 15:30
Carson Hall – Salon B

Session Chair: Rhonda Rosychuk

Information Weighted Independence Graphs for Assessing Associations Between Cardio-Vascular Risk Factors from A Longitudinal Study of Young Adults
Baker, Peter

Fractional polynomials and model selection in Generalized Estimating Equations, with an application to a longitudinal study
Cui, Jisheng

Model-Based Estimation of the Attributable Fraction for Cross-sectional, Case-Control and Cohort Studies Using the R Package AF
Dahlqwist, Elisabeth

An overview of statistical methods for analysis of balanced binary repeated measures on subjects nested within clusters
Masaoud, Elmabrok

A latent process model for forecasting multiple time series in environmental public health surveillance
Morrison, Kathryn

CS.18 – Topics in Modeling
Tuesday, 12 July 2016
14:00 – 15:30
Carson Hall – Salon C

Session Chair: Yan Yan Wu

An alternative pruning based approach to unbiased recursive partitioning algorithms
Alvarez-Iglesias, Alberto

State-space models’ dirty little secrets: even simple linear Gaussian models can have estimation problems
Auger-Methe, Marie

Spatio-Temporal Modelling and Competition Dynamics in Tillage Forestry Experiments on Early Growth Eucalyptus Grandis
González Barrios, Pablo

Understanding intra-day variation in LIBS spectra
Gupta, Anjali

Spatio-temporal analysis of yield trends for recommended maize varities in Kenya
Lagat, Abraham

Effects of Additive Covariate Error on Parameters and Covariates of a Linear Regression Model
Nakashima, Eiji
CS.19 – Survival Analysis 3
Tuesday, 12 July 2016
16:00 – 17:30
Carson Hall – Salon B

Session Chair: Yan Yan Wu

Causal inference in survival analysis using pseudo-observations
Andersen, Per

Robustness of Estimation Methods in a Survival Cure Model with Mismeasured Covariates
Bertrand, Aurélie

Study of Joint Progressive Type-II Censoring in Heterogeneous Populations
Fallah, Lida

Distance from a hydroelectric dam and time to malaria, with distance confounded with the clustering structure
Kifle, Yehenew Getachew

A joint frailty-copula model between tumour progression and death for meta-analysis
Rondeau, Virginie

Instrumental Variable with Competing Risk Model
Zheng, Cheng

CS.20 – Clinical Trials 2
Tuesday, 12 July 2016
16:00 – 17:30
Carson Hall – Salon C

Session Chair: William Barlow

Inference with Informative Designs
Flournoy, Nancy

Comparison of Dynamic Treatment Regimes Embedded in A Sequential Multiple-Assignment Randomized Trial (SMART) with An Ordinal Outcome
Ghosh, Palash

A permutation-based approach for three-arm trials with active and placebo controls
Mütze, Tobias

The Use of Routine Hospital Records in the Design of Trials of Complex Surgical Interventions: Identifying the Contributions of Multiple Providers
Papachristofi, Olympia

Bayesian optimal interval design for dose finding based on both efficacy and toxicity outcome
Takeda, Kentaro

Use of Propensity Scores to Adjust for Non-compliance in Randomized Clinical Trials
Zhao, Huaqing
**CS.21 – Survival Analysis 4**

Thursday, 14 July 2016  
09:00 – 10:30  
Carson Hall – Salon B

Session Chair: Cheng Zheng

Bayesian Joint Models of Longitudinal and Survival Outcomes with Time-Varying Effects using P-splines  
*Andrinopoulou, Eleni-Rosalina*

Cohort effect in survival analysis: a change-point perspective  
*Bouaziz, Olivier*

Modeling dependence in bivariate multi-state processes: a frailty approach  
*Giussani, Andrea*  
Bocconi University, Milan, Italy

Optimal Subgroup Selection Rules in Adaptive Enrichment Designs with Time-to-event Outcome  
*Krisam, Johannes*

Regularized Regression Methods for Competing Risks Data  
*Saadati, Maral*

The ABRIDGE Method for Cox Regression Models: Variable Selection for Cox’s Proportional Hazards Model via the Adaptive Broken Ridge (ABRIDGE) method  
*Kawagunchi, Eric*

**CS.22 - Longitudinal data analysis / mixed effects model 2**

Thursday, 14 July 2016  
09:00 – 10:30  
Carson Hall – Salon C

Session Chair: Chuan Zhou

Marginal Zero-inflated Regression Models for Cross-sectional and Clustered Count Data  
*Hall, Daniel*

Multilevel Modelling of Counts with Gamma-Poisson Model  
*Lee, Yan Liang (Jarod)*

Joint Mixture Modelling of Longitudinal Data: Application to Human-Gut Microbiome Composition and the Immune System  
*Martin, Ivonne*

Bivariate Mixture Models for the Joint Distribution of Repeated Serum Ferritin and Transferrin Saturation Values in an Australian Population  
*McLaren, Christine*

Bias reduction from using regularly scheduled as opposed to outcome-driven visits in longitudinal studies  
*Neuhaus, John*

A Novel Sampling Approach for the Rapid Model Exploration of Large Clustered Binary Data  
*Wright, Stephen*
CS.23 – Causal Inference 2  
Thursday, 14 July 2016  
11:00 – 12:30  
Carson Hall – Salon A

Session Chair: Kate Crespi

Instrumental Variable Approaches for Estimating Complier Average Causal Effects on Bivariate Outcomes in Randomized Trials with Non-Compliance  
DiazOrdaz, Karla

A Model Averaging Approach for Estimating Propensity Scores by Optimizing Balance  
Xie, Yuying

Improving Covariate Balancing Propensity Score for Continuous Treatment Regimes  
Noreen, Samantha

Model Assessment and Dynamic Treatment Regimens  
Wallace, Michael

Reappraisal of odds ratios for validating observational comparative studies  
Yanagawa, Takashi

Epidemiological paradoxes explored by causal frailty models - The qualitative DAG needs quantitative support  
Stensrud, Mats

CS.24 – Microarrays and omics data 2  
Thursday, 14 July 2016  
11:00 – 12:30  
Carson Hall – Salon B

Session Chair: Julie Zhou

Powerful and omnibus consistent distribution-free K-sample and independence tests  
Heller, Ruth

Identification of marginal causal relationships in gene networks from observational and interventional expression data.  
Monneret, Gilles

General linear models for investigating the dependence between gene module co-expression dynamics and a continuous trait  
Padayachee, Trishanta

Testing for Differential Connectivity in High-Dimensional Networks  
Zhao, Sen

Latent variable Meta-analysis with Probabilistic Partial Least Squares (PPLS)  
el Bouhaddani, Said
CS.25 – Epidemiology 3
Thursday, 14 July 2016
11:00 – 12:30
Carson Hall – Salon C

Session Chair: Nicholas P. Jewell

On methods of extracting and reporting leading joint causes of death
Forcheh, Ntonghanwah

Estimating the mortality reduction produced by each round of cancer screening
Hanley, James

Design of Primary and Sensitivity Analyses for Handling Non-future Dependence Missing Data in Clinical Trials With an Emphasis on the Type-I Error Rate Using Multiple Imputation and Pattern Mixture Model Approach
Peng, Lixian

Point-wise averaging approach in dose-response meta-analysis of aggregated data
Crippa, Alessio

A Marginal Structural Model with Dose-Delay Joint-Exposure for Assessing Reductions to Chemotherapy Intensity
Lancia, Carlo

Quantifying the effect of spectrum bias in diagnostic accuracy studies
Davidow, Amy

CS.26 – Longitudinal / Mixed models
Thursday, 14 July 2016
11:00 – 12:30
Esquimalt

Session Chair: Rachel Altman

Reconstructing individual disease progression curves with an application to Alzheimer’s Disease
Budgeon, Charley

Muchene, Elvis

Estimating HIV Seroconversion Time Using Biomarkers of Recent Infection
Koulai, Loumpiana

The impact of family structure on the association between determinants and health outcomes and modelling family structure using fractional relatedness of founders and non-founders in LifeLines cohort study
Demetrashvili, Nino

New Repeated Measures Design and Sample Size for Randomized Controlled Trials
Tango, Toshiro

Joint modelling of remission and longitudinal quality-of-life measures in psoriatic arthritis; a multi-state modelling approach
Boer, Martin
**CS.27 – Epidemiology 4**
Thursday, 14 July 2016  
14:30 – 16:00  
Carson Hall – Salon A

Session Chair: *Kate Crespi*

*Modelling semicontinuous exposures: Simulation study and practical application to survival data*  
*Becher, Heiko*

*Study of the Occurrence of Seasonal Diseases: A Circular Statistical Approach*  
*Das, Kishore*

*Extending Average Attributable Fractions*  
*Ferguson, John*

*Estimating parameters of epidemiological model via Simulated Tempering Without Normalizing Constants*  
*Jonoska Stojkova, Biljana*

*Keller, Theresa*

*Associations between early body mass index trajectories and later metabolic risk in European children: The IDEFICS study*  
*Pigeot, Iris*

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**CS.28 – Regression 3**
Thursday, 14 July 2016  
14:30 – 16:00  
Carson Hall – Salon B

Session Chair: *Minsun Song*

*Sparse functional classification method with composite basis function for early detection of Alzheimer's disease based on brain MRI*  
*Araki, Yuko*

*Modification of integrated discrimination improvement by beta divergence*  
*Hayashi, Kenichi*

*Personalized screening intervals for biomarkers using joint models for longitudinal and survival data*  
*Rizopoulos, Dimitris*

*A statistical framework for using external information in updating prediction models with new biomarkers*  
*Taylor, Jeremy*

*Multivariate regression models to determine risk factors associated with incidence, severity and duration of chronic pain after surgery*  
*Ulin, Fidel*
CS.29 – Medical Research
Thursday, 14 July 2016
14:30 – 16:00
Carson Hall – Salon C

Session Chair: Eren Demirhan

Clinical trial by television
Bland, Martin

Markov-Renewal Multistate Model for Colorectal Cancer Screening Evaluation in Lynch Syndrome families
Briollais, Laurent

Assessing Inter-rater Agreement of Immunohistochemistry Scores
Craig, Bruce

Estimating the Probability of Clonal Relatedness in Cases with Two Tumors
Mauguen, Audrey

Affinity Analysis for chronic disease screening and prevention
Zhao, Xu

CS.30 – Clinical Trials 3
Thursday, 14 July 2016
16:30 – 18:00
Carson Hall – Salon B

Session Chair: Chuan Zhou

Challenges in the Design and Analysis of Stepped-Wedge Cluster Randomized Controlled Trials to Evaluate the Effectiveness and Safety of Electronic Medical Record Systems
Li, Ling

Resampling based methods to assess the clinical Utility of Phase II endpoints based on tumor measurements to predict overall survival outcomes in Phase III Trials
Mandrekar, Sumithra

Cluster-level adaptive interventions and sequential, multiple assignment, randomized trials: Estimation and sample size considerations
NeCamp, Timothy

Simultaneous inference from separate mixed model fits - an alternative to joint modelling
Ritz, Christian

Outcome-adaptive interim monitoring in Phase II trials: Criteria for early stopping
Kopp-Schneider, Annette

Choice of futility boundaries for group sequential designs with two endpoints
Schueler, Svenja
CS.31 – Missing and incomplete Data
Thursday, 14 July 2016
16:30 – 18:00
Carson Hall – Salon C

Session Chair: Chris Drake

Extension of the pseudo likelihood method to analyze two-phase studies with selective phase 2 samples
Enders, Dirk

Evaluating and Comparing Biomarkers in Two-Phase Case-Control Studies
Huang, Ying

The competing risks model with missing cause of failure and auxiliary case covariates
Nevo, Daniel

Methods for Handling Missing Data Due to Death and Drop-out in Mortal Cohorts
Wen, Lan

Variable Selection for Multiply-Imputed Data with Penalized Generalized Estimating Questions
Geronimi, Julia

Bayesian imputation of (non-)linear endo- vs. exogenous time-varying covariates in linear mixed models
Erler, Nicole

CS.32 – Spatial Epidemiology
Thursday, 14 July 2016
16:30 – 18:00
Saanich 1&2

Session Chair: Barbara Bailey

Using the Local-EM Algorithm for Spatio-Temporal Analysis of Spatially Aggregated Cancer Data
Brown, Patrick

Identifiability issues in spatio-temporal disease mapping models
Goicoa, Tomas

Assessing Joint Spatial Autocorrelations in Multiple Mortality Risks in South Africa, 1997-2014
Manda, Samuel

Gaussian process emulators for parameterizing spatial infectious disease transmission models incorporating infection time uncertainty
Pokharel, Gyanendra

Spatial Analysis of County-Level Diabetes Prevalence – Project CHANGE: Creating a Healthier Mississippi One Community at a Time
Tabb, Loni

A multiple cluster detection test based on scan statistics and generalized linear models for disease clustering
Takahashi, Kunihiro
CS.33 – Agriculture / biometrics
Thursday, 14 July 2016
16:30 – 18:00
Oak Bay 1&2

Session Chair: TBD

A Generic Randomization Device for Estimation of Mean of Quantitative Sensitive Response Variable
Batool, Fatima

Grain Demand and Consumption in Selected Districts of Uganda the Case of Maize, Beans, Groundnuts and Rice
Abdallah, Kiriko

In silico selection for resistant genes of diseases and endophytic fungi in Theobroma cacao: a K-Tables Analysis approach
Demey, Jhonny

Rough Set Based Feature Selection Method for High Dimensional Biological Data
Venkatesan, Perumal

Comparison of positive predictive value of a number of diagnostic procedures – An extension to three diagnostic results
Kim, Seonwoo

CS.34 – Survival Analysis 5
Friday, 15 July 2016
09:00 – 10:30
Carson Hall – Salon A

Session Chair: Susanne May

Dynamic frailty models for recurrent events data
Balan, Theodor Adrian

Frailty Model for the Joint Modeling of Screening Visit and Disease Processes in Lynch Syndrome Families
Choi, Yun-Hee

A joint model for an interval censored multi-state outcome and a longitudinal outcome with clusters
Grand, Mia

Estimating Piecewise Constant Hazard Rates in Survival Analysis through Adaptive Ridge
Nuel, Gregory

Joint Frailty Mixed Models: Accounting for Heterogeneity in Sieve Analysis of Vaccine Efficacy
Shao, Jason

Evaluation of failure time surrogate endpoints in individual patient data meta-analyses of randomized clinical trials. A Poisson approach
Rotolo, Federico
CS.35 – Bioinformatics 2
Friday, 15 July 2016
09:00 – 10:30
Carson Hall – Salon B

Session Chair: Xiaoming Sheng

Bayesian hierarchical modeling for subject-level response classification in peptide microarray immunoassays
Imholte, Gregory

Multiple testing for networks and graphical models
Meskaldji, Djalel-Eddine

Penalized Exponential Tilt Model for Analysis of High-dimensional DNA Methylation Data
Sun, Hokeun

Fast Parametric Time Warping of Peak Lists
Wehrens, Ron

Bayesian integrative analysis of omics data: Prediction models with informative selection priors
Wiesenfarth, Manuel

Selecting Biomarkers for building optimal treatment selection rules using Kernel Machines.
Dasgupta, Sayan

CS.36 – Categorical data analysis
Friday, 15 July 2016
09:00 – 10:30
Saanich 1&2

Session Chair: Youyi Fong

Objective functions for group testing
Bilder, Christopher

Nonlinear Models for Immunological Assay Outcome from Two Dilutions
Fong, Youyi

Estimation of proportions by group testing: retesting revisited
Hepworth, Graham

A Commentary on Statistical Assessment of Violence Recidivism Risk
Imrey, Peter

On the analysis of two phase designs in cluster-correlated data settings
Rivera, Claudia

Intrasubject parallelism in the paralle-line bioassay
Uehara, Hideaki
CS.37 – Regression 2
Friday, 15 July 2016
11:00 – 12:30
Carson Hall – Salon A

Session Chair: Brad McNeney

A model for interpretable high dimensional interactions
Bhatnagar, Sahir

Multiple-linear-combination (MLC) regression tests for gene-based association analysis of common variants adapted to linkage disequilibrium structure
Bull, Shelley

Firth Logistic Regression for Rare Events and Extensions
Geroldinger, Angelika

Statistical challenges in the use of meta-regression models for deriving Dietary Reference Values: how to move from population of studies to population of individuals
Martino, Laura

The weighted bootstrap for penalty parameter selection in sparse regression: Modeling Alzheimer’s disease with clinical and microRNA data
Patrick, Ellis

Analyzing low frequency variants in the presence of quantitative covariates using prospective and retrospective logistic regression models
Shin, Ji-Hyung

CS.38 – Bayesian methods 1
Friday, 15 July 2016
11:00 – 12:30
Carson Hall – Salon B

Session Chair: Chris Drake

An empirical Bayes approach to network recovery using external knowledge
Kpogbezan, Gino

A bivariate mixture model for natural antibody levels to human papillomavirus types 16 and 18: baseline estimates for monitoring the effects of immunization
Bogaards, Johannes

Adaptive nonparametric smoothing for capture-recapture models
Faulkner, James

Accounting for exposure uncertainty and effect modification using a Bayesian structural approach: Radon exposure and lung cancer mortality in a prospective cohort of uranium miners
Hoffmann, Sabine

A Bayesian Hierarchical Model for the Analysis of PAR-CLIP Data
Huessler, Eva-Maria
**CS.39 – Genetics 2**
Friday, 15 July 2016  
11:00 – 12:30  
Carson Hall – Salon C  

Session Chair: Serge Sverdlov  

Sparse latent graphical models in high dimensional setting with application to genetics  
*Behrouzi, Pariya*  

Optimal block designs for experiments with responses drawn from a Poisson distribution  
*Bush, Stephen*  

Modelling and inference for stochastic transcriptional regulation of circadian genes  
*Calderazzo, Silvia*  

Statistical method to analyze allelic imbalance of RNA sequence data: an application in Osteoarthritis disease data  
*Fuady, Angga*  

Testing for genetic associations in arbitrarily structured populations  
*Song, Minsun*  

Threshold setting in duplex digital PCR experiments  
*Vynck, Matthijs*  

**CS.40 – Topics in Application**
Friday, 15 July 2016  
11:00 – 12:30  
Saanich 1&2  

Session Chair: Brandie Wagner  

Clinical Decision Support System for HCC Surveillance Clinical Exam  
*Lee, Taerim*  

An alternative improvement to the Chao estimator of species richness  
*Kumphakarm, Ratchaneewan*  

Unbiased estimation in seamless phase II/III trials with unequal treatment effect variances and adjustment for multiplicity  
*Robertson, David*  

Using Electric Resistances to Find A-Optimal Block Designs When the Concurrence Graphs are Sparse  
*Saajjad, Alia*  

Evidence synthesis for a single randomized controlled trial and observational data in small populations  
*Unkel, Steffen*  

A proposal to select active effects in 2k-p experiments with beta response.  
*Grajales, Luis*
Showcases

Young Statisticians’ Showcase
Monday, 11 July 2016
16:00 – 17:30
Lecture Theatre

Chair: Inmaculada Arostegui, Department of Applied Mathematics and Statistics and OR, University of the Basque Country, Spain

16:00 Fernando Aguate, Facultad de Ciencias Agropecuarias, Universidad Nacional de Córdoba, Argentina
Use of high-resolution image data outperforms vegetation indices in prediction of maize yield

16:18 Bekir Çetintav, Graduate School of Natural and Applied Sciences, Dokuz Eylul University, Turkey
Fuzzy ranked set sampling: An advanced sampling method for data collection

16:36 Linda Chaba, Institute of Mathematical Sciences, Strathmore University, Kenya
Comparison of the SAM and a Bayesian method for differential gene expression analysis

16:54 Edward Kennedy, Department of Biostatistics & Epidemiology, Perelman School of Medicine, University of Pennsylvania, USA
Semiparametric estimation of the local instrumental variable curve

17:12 Faye Williamson, Lancaster University, UK
Clinical trial design for rare diseases using Bayesian bandit models

Statistics in Practice
Tuesday, 12 July 2016

Session 1 (Part 1 & 2)
11:00 – 12:30
Carson Hall – Salon A

Session 2 (Part 3 & 4)
14:00 – 15:30
Carson Hall – Salon A

Meta-analysis of Individual Participant Data

Presenters:
Simon G. Thompson, Professor of Biostatistics
Department of Public Health and Primary Care, University of Cambridge, UK

Mark Simmonds, Research Fellow
Centre for Reviews and Dissemination, University of York, UK

Meta-analyses of multiple studies, for which individual participant data (IPD) are available, are becoming common. The aim of these sessions is to update participants on statistical methods that can be used for such analyses, and the pitfalls to be avoided. Application to both trials and observational studies will be addressed, together with examples and reference to available software. Familiarity with the concept of meta-analysis is assumed. The two sessions are organised as four 30-minute presentations, each then allowing 10 minutes for discussion and questions. Specifically, the presentations will cover the following topics:

1. **IPD meta-analysis of clinical trials**
   We first introduce IPD meta-analysis, and analysis methods in the context of two-arm randomized trials:
   - Definition of IPD
   - Advantages and practicalities of IPD meta-analysis
   - Analysis methods: naïve lumping, two-stage, one-stage
   - Two-stage meta-analysis: binary and continuous outcomes
   - Fixed and random treatment effects
2. **IPD meta-analysis of observational studies**
   We here discuss the use of covariates, in the context of survival data in observational epidemiological studies:
   - Summarising data in each study in a consistent way
   - Adjusting for covariates
   - Analysing interactions
   - Separating within- and between-study information
   - Handling confounders that are completely missing in some studies

3. **Advanced IPD meta-analysis methods for clinical trials**
   Here we explore some more challenging topics in the context of IPD meta-analysis of randomized trials:
   - One-stage analysis: a general hierarchical model structure
   - Covariates and interactions: one-stage vs. two-stage
   - Survival data in trials
   - Combining IPD with aggregate data from non-IPD studies
   - Addressing missing outcome data

4. **Advanced IPD meta-analysis methods for observational studies**
   The usual measures of association derived from epidemiological studies, such as hazard ratios, do not have a direct interpretation in terms of the implications for public health. Here we discuss how such measures can be derived from IPD meta-analysis:
   - Adjusting for measurement error and within-person variability
   - Assessing the usefulness of novel markers for medical screening
   - Deriving measures of public health impact
   - Estimating life expectancy
   - Estimating causal relationships using Mendelian randomization

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**Biometrics Showcase**

**Tuesday, 12 July 2016**

16:00 – 17:30

Carson Hall – Salon A

**Best Papers by an IBS Member in Biometrics, 2014 and 2015**

2014: Published in the December 2014 issue, volume 70, pages 993-1002

“Bayesian nowcasting during the STEC O104:H4 outbreak in Germany,” by Michael Hohle and Matthias an der Heiden

2015: Published in the December 2015 issue, volume 71, pages 1150-1159

“Handling missing data in matched case-control studies using multiple imputation,” by Shaun R. Seaman and Ruth H. Keogh
By 2050, the world will have to produce 50 to 80% more food (Keating & Carberry, 2010) and this will need to be achieved in the face of increasingly constrained and contested land, water, nutrient and energy resources. The threat of dangerous climate change also means the food security challenge has to be met whilst reducing the greenhouse gas load on the atmosphere. This implies an “eco-efficiency” imperative for global agriculture – producing more food and fibre with more efficient use of natural resources with less impact on the environment.

Agriculture and forestry are entering an era where rapidly changing global markets for commodities, changes to water allocations, rising input costs, skills deficiencies and environmental pressures are paramount. Meeting needs and consumer expectations across the diversity of economic and social contexts involves basics of supply and delivery, along with sustainable land management as well as healthy, ethical food production. Land use goals and consumer driven demands cannot be simply traded off against each other.

To address climate change, global agricultural systems need to achieve productivity growth and realise improved greenhouse gas abatement opportunities. Managed and native forests play an increasingly important role in the land use mix on account of their role as a carbon sink (or source in the case of land clearing or forest disturbance) and the interactions with agriculture, water and biodiversity.

Various speakers will consider the role of statistical sciences and statisticians in tackling these challenges now and in the future.
Business Meetings

**Executive Board**
Sunday, 10 July 2016
09:00 – 15:00
Colwood Room 1 & 2

**WNAR Regional Committee**
Sunday, 10 July 2016
15:30 – 17:00
Colwood Room 1 & 2

**WNAR Regional Advisory Board**
Monday, 11 July 2016
12:30 – 13:45
Colwood Room 1 & 2

**All Committee Chairs & Officers**
Monday, 11 July 2016
14:30 – 15:30
Metchosin Room

**Committee on Communications**
Monday, 11 July 2016
16:00 – 17:30
Metchosin Room

**Education Committee**
Monday, 11 July 2016
16:00 – 17:30
Metchosin Room

**Club of Presidents**
Tuesday, 12 July 2016
09:00 – 10:30
Metchosin Room

**Biometrics Associate Editors**
Tuesday, 12 July 2016
11:00 – 12:30
Metchosin Room

**WNAR Regional Committee**
Tuesday, 12 July 2016
12:30 – 13:45
Colwood Room 1 & 2

**Conference Advisory Committee**
Tuesday, 12 July 2016
14:00 – 17:30
Colwood Room 1 & 2

**Editorial Advisory Committee**
Tuesday, 12 July 2016
14:00 – 15:30
Metchosin Room

**Biometric Bulletin Correspondents**
Tuesday, 12 July 2016
14:00 – 15:30
Langford Room

**Awards Fund Committee**
Tuesday, 12 July 2016
16:00 – 17:30
Langford Room

**Representative Council**
Thursday, 14 July 2016
09:00 – 12:30
Colwood Room 1 & 2

**JABES AE Meeting**
Thursday, 14 July 2016
09:00 – 12:30
Metchosin Room

**IBS Members’ General Meeting**
Thursday, 14 July 2016
14:00 – 14:30
Esquimalt Room

**Regional Officers**
Thursday, 14 July 2016
14:30 – 18:00
Colwood Room 1 & 2

**Budget & Finance**
Thursday, 14 July 2016
14:30 – 16:00
Metchosin Room

**LOC & IPC Chairs**
Thursday, 14 July 2016
16:30 – 18:00
Langford Room

**WNAR Annual Business Meeting**
Friday, 15 July 2016
13:30 – 14:00
Sidney Room
Poster Sessions

Poster presenters have been asked to standby during the following times to either present or answer any questions regarding their poster. Outside of these times, posters will be up for individual viewing.

Group 1
Tuesday, 12 July 2016
13:00 – 14:00
Pre-Function 2

Group 2
Thursday, 14 July 2016
13:00 – 14:00
Pre-Function 2

Group 1 Posters

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<td>27</td>
<td>Murotani, Kenta</td>
<td>A comparison of two binary diagnostic tests with consideration to the background of mixed patients who with or without definitive diagnosis</td>
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<td>28</td>
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<td>Grouping Case Fatality of Accident Victims Using Multivariate Statistical Approach</td>
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<td>Yamaoka, Kazue</td>
<td>A cluster randomized controlled trial to examine the effects of a lifestyle education program for adolescents</td>
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<td>Risk scores for predicting the incidence of type 2 diabetes in China: the Kailuan prospective study</td>
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<td>A system of fractional ordinary differential equations to model tumor growth</td>
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<td>A Chi-Squared Approach To Obtaining Missing Values On Egg Production</td>
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<td>Using Gene Genealogies to Understand the Patterns of Case-Control Association</td>
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<td>Modeling of Imbalanced Survival Data Using Different Survival Ensemble Techniques</td>
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<td>Estimation of Optimum Sample Size and Number of Replications in a Split-Plot Design</td>
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<td>Levels of and Differentials in current use of Contraceptives among Women of Reproductive Age in Nigeria</td>
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<td>A comparison of multiple testing methods for effective strategies in genome-wide association studies</td>
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<td>Comparison of Methodologies to Estimate Covariate Effect on Survival Time Data: A Simulation Based Approach</td>
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<td>Wavelet-based Classification Applied to fMRI Pedro A. Morettin University of São Paulo, Brazil</td>
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<td>Validation of the short form Mexican-Spanish version of the Support Person Unmet Needs Survey</td>
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<td>Multivariate classification of accumulation curves. Application in sugarcane</td>
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<td>Balzarini, Monica</td>
<td>A New Method to Adjust P-Values in Multiple Association Testing with Correlated Data</td>
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<td>An efficient adaptive sample size determination via working sequential designs for confirmatory clinical trials</td>
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<td>Tuning window length in Singular spectrum analysis for emergency telephone consultation of cold and ice region of Japan</td>
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<td>Cesana, Bruno</td>
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<td>Neural network committee and linear regression to predict the nitrogen-corrected metabolizable energy of poultry feedstuffs</td>
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<td>Miller, Curtis</td>
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<td>An assessment of the impact of missing values on the performance of different statistical methods for analysis of binary repeated measures on subjects nested within clusters</td>
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<td>Moore, Camille</td>
<td>A Dirichlet Process Mixture Model for Non-Ignorable Dropout</td>
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<td>Crespi, Catherine</td>
<td>Cluster dropout in cluster randomized trials: Bayesian methods for sensitivity analyses</td>
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<td>Comparison of causal inference approaches for estimating the effect of exposure to inhaled corticosteroids on mean birth weight and gestational age</td>
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<td>92</td>
<td>Hunt, Lynette</td>
<td>Mixture Model selection for Three-mode Three-way data</td>
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</tbody>
</table>
Awards at IBC

Norm Breslow Memorial and Awards Presentation
Tuesday, 12 July 2016
17:45 - 19:00
Lecture Theatre

Regional Officers’ Reception
Tuesday, 12 July 2016
19:00 - 20:00
Fairmont Empress Hotel – Palm Court
Social Programme

Welcome Reception
Sunday, 10 July 2016
17:00 - 19:30
Fairmont Empress Hotel – Crystal Ballroom

Young Statisticians’ Mixer
*ticket required for entry
Monday, 11 July 2016
18:00 – Late
Bard & Banker – Top Floor
If you are under 35 years of age and are currently enrolled in a Masters or Doctoral degree program (or just received your degree) and want to meet colleagues who know what you’re going through, then the Young Statisticians’ Mixer is for you!
IBS will furnish:
• One drink ticket per person
• Light appetizers
• Exclusive use of the top floor

Victoria’s newest landmark pub, the Bard & Banker, is located on the corner of Fort Street and Government Street in downtown Victoria, BC. Opened in 1862 as the Bank of British Columbia, the building remained a bank until 1988 under an array of different banking establishments’ control. Of all the bank employees to work at this location in the 126 years it was a bank, the most notable was the bard of the Yukon, Robert Service.

With 30 different beers on tap, one of the most impressive selections of spirits under one roof and live music every night on sky stage, the Bard & Banker defines the ultimate pub experience.

Reception for Regional Officers & Award Winners
Tuesday, 12 July 2016
19:00 - 20:00
Fairmont Empress Hotel – Palm Court

Banquet / Cultural Gala
*ticket required for entry
Thursday, 14 July 2016
19:00 - 22:00
Royal BC Museum - 3rd Floor
Cost: $75.00 USD per person (includes entrance to the Museum)
You are invited and don’t want to miss the IBC 2016 Gala Event to be held at The Royal BC Museum, one of Canada’s greatest cultural treasures. The Museum, founded in 1886, houses a collection of artifacts and specimens of British Columbia’s incredible natural and human history.

Located across the street from the Victoria Conference Centre and Empress Hotel, Gala attendees will have access to the entire third floor of the Museum. Here you may visit the ‘First Peoples Gallery’ as well as the ‘Modern History Gallery.’ You’ll view totem poles, a pit house, a cannery and old town (among other treasures), while enjoying an array of locally inspired food and drinks.

The Royal BC Museum is the only natural and human history museum in the province of British Columbia, with a collection of 7 million artifacts and 750,000 specimens. You’ll want to schedule your own visit to view the other galleries that won’t be accessible during the Gala. For tickets to the Museum or for more information go to http://royalbcmuseum.bc.ca

Join colleagues and friends while enjoying the sights and sounds of the Pacific Northwest.
This is an evening not to be missed!
### Exhibitor Information

**EXHIBIT HALL LOCATION**
Victoria Conference Centre – Pre Function 1A, Level One

<table>
<thead>
<tr>
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<tr>
<td>1</td>
<td>Wiley</td>
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<td></td>
<td><a href="http://www.wiley.com">www.wiley.com</a></td>
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<tr>
<td>2</td>
<td>IBC 2018 - Barcelona</td>
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<td></td>
<td><a href="http://www.biometricconference.org">www.biometricconference.org</a></td>
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<tr>
<td>3</td>
<td>Taylor &amp; Francis Group</td>
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<td></td>
<td><a href="http://www.tandfonline.com">www.tandfonline.com</a></td>
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<td>4</td>
<td>University of Victoria</td>
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<tr>
<td></td>
<td><a href="http://www.uvic.ca">www.uvic.ca</a></td>
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<tr>
<td>5</td>
<td>Springer</td>
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<td></td>
<td><a href="http://www.springer.com">www.springer.com</a></td>
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<tr>
<td>6</td>
<td>Cambridge University Press</td>
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<td></td>
<td><a href="http://www.cambridge.org">www.cambridge.org</a></td>
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General Information

ABOUT VICTORIA

Voted one of the most popular destinations in the world by Travel and Leisure Magazine, a top city in the Americas and the best temperate island by Condé Nast Traveler Magazine, Victoria offers the perfect destination for the 28th International Biometric Conference (IBC 2016).

Victoria boasts some of the country’s most exhilarating scenery: there’s an ocean and mountain vista around every corner. Heritage architecture, colourful gardens and traditions such as afternoon tea mix with soft adventure such as fishing, hiking, cycling and golf. There are culinary experiences such as gourmet farm and wine tours, microbreweries, world class dining and arts and culture. As an island destination, Victoria offers visitors an escape from the hurried world and beams with ambience.

Victoria has received many accolades including:

- #1 Destination to Visit in Canada
- Best Island in North America
- 2nd only to San Francisco for number of restaurants per capita
- 2nd Best Destination for Culture and Sightseeing in Canada
- One of the Most Walkable Cities in Canada
- Canada’s Smartest City

Very close to the Victoria Conference Centre (VCC), where the IBC2016 is being held, you’ll find an abundance of eco-adventures such as whale watching and guided sea-kayak trips, harbor cruises and seaplane tours. Victoria is known as “The City of Gardens” with its annual flower counts of over 2 billion. The gardens are word famous including Butchart Gardens with its breathtaking 55-acres of spectacular floral displays.

Victoria was voted one of the most walkable cities with museums and unique shops just steps away from the VCC. Most attractions are located within walking distance, including the world renowned Royal British Columbia Museum, which preserves and shares the stories of British Columbia through its remarkable collections and exhibitions.

ACCOMMODATIONS

The IBC 2016 has selected the world-famous Fairmont Empress as its official host hotel.

The Fairmont Empress hotel sits majestically at the cornerstone of Victoria’s sparkling Inner Harbour and city centre of arts, entertainment and cultural attractions. Built in 1908 for the Canadian Pacific Railway, the Empress Hotel is one of a series of hotels built by Canadian railway companies in the early 20th century to encourage tourists to travel their transcontinental routes.

A local favourite for dining options, The Fairmont Empress Hotel has versatile restaurants, including The Bengal Lounge featuring South Asian cuisine. No visit to Victoria is complete without experiencing Afternoon Tea, a true feature of the hotel. The hotel also features the highly acclaimed Willow Stream Spa, regarded as one of the best spas in Canada.

ACCESS/SECURITY

Name badges will be provided to all delegates and participants when they check in at the Registration Desk. The badge is your admission pass to all conference sessions, the exhibit hall and social events. Delegates are required to wear their name badge at all times and will not be granted access to the Conference without it. This is to ensure that access to the Conference is properly managed.

BANKS & CURRENCY

All costs in Canada are set in Canadian funds (CAD). Foreign currencies are readily exchanged at airports and banks. Bank debit or credit cards are the most convenient means of getting cash at the many 24-hour-access automated banking machines available in Victoria. As in the USA and Europe, these machines accept cards with Plus, Interac and Cirrus symbols. Most Canadian businesses accept major credit cards (Visa, MasterCard, American Express), as well as US currency and travelers’-cheques. Banks are open Monday to Friday (09:00 –17:00 PDT).
BUSINESS CENTRE SERVICES
The Official Conference Hotels offer business centre services for hotel guests.

CAR PARKING
The Official Conference Hotels offer car parking to hotel guests at a daily fee.

CLIMATE
Warmed by Pacific Ocean currents and protected by a range of mountains, Victoria enjoys mild temperatures year-round. From high 70s Fahrenheit (low 20s Celsius) in summer to a mild mid 40s Fahrenheit (0° to 5° Celsius) in winter, the climate is always hospitable. Average daily temperatures in July are 17 Celsius (64 Fahrenheit).

CONFERENCE DATES AND VENUE
July 10 - 15, 2016
Victoria Conference Centre
720 Douglas Street
Victoria, BC V8W 3M7
CANADA
Toll Free: +1.866.572.1151
Phone: +1.250.361.1000
Fax: +1.250.361.1099
Web: http://victoriaconference.com/

CONFERENCE MOBILE APP
The official IBC 2016 Mobile App can be downloaded on Apple iTunes and Google Play Stores.
Keyword search: IBC 2016

CONFERENCE LANGUAGE
The official language of the IBC 2016 is English. All sessions will be conducted in English.

CONFERENCE SECRETARIAT
MCI Group Canada Inc.
200 – 1444 Alberni Street
Vancouver, BC V6G 2Z4
CANADA
Tel.: +1.604.688.9655
Fax: +1.604.685.3521
Email: ibs@biometricsociety.org
Web: https://biometricconference.org/

CONFERENCE TIMETABLE
All IBC 2016 Conference sessions will be held at the Victoria Conference Centre. Please consult the Schedule at a Glance in this Final Program for detailed timing and refreshment breaks. Social Program events are held at various locations. Please consult the Social Program section of this Final Program for details. All time references within this Final Program are noted in Pacific Daylight Time (PDT).

CONFERENCE WI-FI
Complimentary WiFi has been organized by the IBC 2016 and will be available to all registered delegates throughout the Victoria Conference Centre.
Network: VictoriaConference
Access Code: ibc2016

ELECTRICITY
The electrical current in Canada is 110 volts AC at 60Hz. Adapters may be required for appliances from other countries.

EMERGENCIES
If you or any other delegate is unwell, or an accident or any other emergency occurs while at the Victoria Conference Centre, a First Aid Service will be able to assist. The Emergency telephone number in Victoria for police, fire or ambulance is 911.
EXHIBIT AREA HOURS
The exhibits are located in Pre-Function 1A of the Victoria Conference Centre in front of the IBC 2016 Registration Desk and will be open during the following times:
Monday, July 11  10:30 – 17:30
Tuesday, July 12  09:00 – 17:30
Wednesday, July 13  Closed
Thursday, July 14  09:00 – 18:00
Friday, July 15  09:00 – 12:30

REGISTRATION DESK
The registration desk is located in the Victoria Conference Centre and will be open at the following times:
Sunday, July 10  08:30 – 18:00
Monday, July 11  08:30 – 16:30
Tuesday, July 12  08:30 – 16:30
Wednesday, July 13  CLOSED
Thursday, July 14  08:30 – 16:30
Friday, July 15  08:30 – 13:00

INSURANCE
It is strongly recommended that participants purchase adequate coverage for health, travel and private liability insurance before departing their home countries. The organizers will not accept responsibility for personal injury, loss or damage to private, personal property of conference participants and/or accompanying persons.

RESTAURANTS & GRATUITIES
An extensive variety of cuisine is available representing the multicultural flavor of Victoria. Fine dining, casual or family friendly restaurants are easily accessible throughout Victoria. Minors are not admitted into bars or lounges. In British Columbia, a minor is defined as anyone under 19 years of age.

In Canada, tips and gratuities are not typically included in a bill. In general, a gratuity of 15% of the total amount before taxes is considered to be a suitable gratuity. This applies to waiters, waitresses and taxi drivers. At hotels and airports, doorman and porters are generally offered $2.00 CAD per item of luggage.

LOST PROPERTY
Please report any lost or unattended items immediately to the Conference staff. Should you lose anything while at the Victoria Conference Centre, please inquire at the Conference Registration Desk where any lost property will be held.

PHOTOGRAPHER
An official photographer is present during the Conference. By registering for the IBC 2016, you agree to have your picture taken.

SMOKING POLICY
The Conference will be a smoke-free event. Smoking is prohibited in any indoor public place within the city boundaries of Victoria. Smoking is also prohibited within customer service areas of food and/or liquor establishments (indoor or open patios), and within six metres of any entryway, open windows or customer service area.

SPEAKER PREP ROOM
The Speaker Prep Room is located in the Victoria Conference Centre – Westcoast Room. PC laptops will be provided for speakers to edit or review their presentations. The Speaker Prep Room will be open at the following times:
Sunday, July 10  09:00 – 16:00
Monday, July 11  08:00 – 16:00
Tuesday, July 12  08:30 – 16:00
Wednesday, July 13  09:00 – 15:00
Thursday, July 14  08:30 – 16:30
Friday, July 15  08:30 – 11:00

REFRESHMENT BREAKS & LUNCH
Coffee, tea and snacks are served during morning and afternoon refreshment breaks in the Pre-Function areas of the Victoria Conference Centre each day. A break will be given each day for lunch where delegates are encouraged to visit the many local eateries throughout Victoria’s Inner Harbour.
**TAXES**
In Victoria, purchases of goods and/or services are subject to 5% Goods and Services Tax (GST) and 7% Provincial Sales Tax (PST). When purchasing alcoholic beverages, the PST is charged at 10%. Hotel room rates are subject to 10% Hotel Tax, 5% GST and 1% Victoria Destination Marketing Fee, per night and per room.

**TAXIS**
Taxis are readily available at the Conference venue and all Official Conference Hotels. Taxis may also be hailed in the street by signaling the driver. Taxis available for hire will have the light illuminated on the roof of their vehicles. To order a taxi by phone, please call the following numbers:

- Victoria Taxi: +1.250.383.7111
- Yellow Cab: +1.250.381.2222
- Bluebird Cabs: +1.250.382.2222

**TELEPHONE SERVICE**
Victoria employs three separate area codes: 250, 778 and 236. Calls within the greater Victoria area are local regardless of whether they use a 250, 778 or 236 area code; however, you will need to dial all ten digits of the phone number in order to be connected (e.g. +1.250.555.1234).

**TIME**
Victoria is in the Pacific Time Zone (-0800 GMT). Daylight Savings Time (-0900 GMT) is in effect in late summer. Daylight Savings Time is in effect from 02:00 on the second Sunday in March until 02:00 on the first Sunday in November.

**TRANSPORTATION (PUBLIC)**
Buses are available mainly within downtown and uptown Victoria. A single fare is $2.50 and only exact change is accepted. Transit tickets are available at grocery and convenience stores. Information on route maps is available at the Victoria Information Desk or Concierge at Hotels.

**DISCLAIMER**
All reasonable endeavors will be made to hold the 28th International Biometric Conference and to present the printed program as scheduled under circumstances which assure the comfort and safety of the Conference Participants. However, the International Biometric Society and its branches, International Biometric Conference Local Organizing Committee, and their respective directors, officers, employees, representatives or agents, shall not be liable in any manner whatever to any person as a result of the cancellation of the Conference or any of the arrangements, programs or events connected therewith; nor shall any of the foregoing entities or persons be liable in any manner whatever for any loss, injury, damage or inconvenience which may be suffered by any person while traveling to or from, or during such person’s presence in, Canada in connection with the Conference. Participants are advised to consider procuring their own insurance against any such occurrences.
SUMMARY ACCOUNTS FOR 1 Jan 2015 to 31 Dec 2015

Net assets 1 Jan 2015: $2,268,611.76 (excluding restricted funds)

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<tr>
<th>Income category</th>
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<th>% Of Total</th>
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<tr>
<td>Dues</td>
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<tr>
<td>Investment</td>
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<td>Publications</td>
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<td>IBC &amp; SC</td>
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<td><strong>TOTAL</strong></td>
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<td>Programs</td>
<td>$18,117.88</td>
<td>3.2%</td>
</tr>
<tr>
<td>IBC &amp; SC</td>
<td>$53,267.09</td>
<td>9.3%</td>
</tr>
<tr>
<td>Services</td>
<td>$63,603.72</td>
<td>11.1%</td>
</tr>
<tr>
<td>Membership</td>
<td>$97,317.39</td>
<td>17.1%</td>
</tr>
<tr>
<td>Publications</td>
<td>$92,627.21</td>
<td>16.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$570,662.95</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Net Assets 1 Jan 2016 (excluding restricted funds): $2,262,303.82

For more information, please come to the Members’ General Meeting:
Thursday 14th July, 14.00-14.30, Esquimalt
The full financial report is available on request from James.Carpenter@lshtm.ac.uk
XXIX INTERNATIONAL BIOMETRIC CONFERENCE
Barcelona, 8-13 July, 2018

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Pere Puig (Universitat Autònoma de Barcelona)

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