

July 15-18, 2021

PROGRAMME AND ABSTRACTS



Statistics 2021 Canada: 6th Decennial Canadian Conference in Applied Statistics

Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec H3G 1M8 Canada

<https://sites.events.concordia.ca/sites/statsconf/en/stats-2021-canada/>

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STATISTICS 2021 CANADA

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PRESIDENT'S MESSAGE



Statistics 2021 Canada: 6th Canadian Conference in Applied Statistics

Welcome message from President

On behalf of Concordia University, it's my pleasure to offer a warm welcome to the 6th edition of the Canadian Conference in Applied Statistics.

Statistical sciences are increasingly at the foundations of how we understand the world and focus on how to make it better. This is why Concordia is so enthusiastic to host this virtual gathering and proud to welcome such an impressive cross-section of speakers and panelists.

The scope of the conference touches on a rich diversity of themes. It's especially heartening to know that the graduate students who represent the next generation of talent will have an opportunity to showcase their posters digitally. And I'm thrilled that there will be a special tribute to our longtime colleague, Jose Garrido, who was so instrumental in the development of actuarial mathematics at Concordia.

I wish you a wonderful, rewarding conference.

Take care,

A handwritten signature in black ink, appearing to read "Graham Carr".

Graham Carr
President and Vice-Chancellor

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Management*

Simon L. Bacon

Health, Kinesiology & Applied Physiology

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CONFERENCE PROGRAMME

The layout of the programme given below is very similar to the version on the conference website. The brief programme is followed by the details of each session along with the list of speakers regarding the abstracts of their papers that are arranged in alphabetical order of the names of presenters.

SCIENTIFIC PROGRAMME SCHEDULE

July 15, 2021 (Thursday)	Event/Details	Note
18:00 - 20:00	Welcome Reception/Networking	Virtual
July 16, 2021 (Friday)	Event/Details	Note
08:30 - 09:00	Opening of the Conference Welcome by Sponsors: Don Estep (CANSSI), Graham Carr (Concordia), Erica Moody (CRM-StatLab)	
09:00 - 10:00	Plenary Session – PS5 (Prof. Dwivedi Memorial Lecture) Serena Ng, Columbia University	
10:00 - 10:30	Break	
10:30 - 12:00	Parallel Sessions <ul style="list-style-type: none"> ◆ Advances in Actuarial Science – 1, IAS1 ◆ Advances in Inference in Directional Data, IS2 ◆ Big Data in Agriculture, IS5 ◆ Clustering and Classification in Data Science, IS6 ◆ Counting, Tracking and Mapping: Advances in Spatial Modelling in Fisheries Science, IS7 ◆ Design and Analysis of Longitudinal Studies, IS8 ◆ Functional Data Analysis, IS12 ◆ Some Recent Advances In Survival Analysis, IS28 ◆ Contributed Papers Session I, CS1 	
12:00 - 12:30	Break	
12:30 - 13:30	Plenary Session PAS2 Jose Garrido, Concordia University	
13:30 - 14:00	Break	
14:00 - 15:00	Plenary Session PS2 Richard Cook, University of Waterloo	

15:00 - 15:30	Break	
15:30 - 17:00	Parallel Sessions <ul style="list-style-type: none"> ◆ Advances in Actuarial Science – 2, IAS2 ◆ MCMC Methods and Computational Statistics, IS15 ◆ Modern Approaches to Infectious Disease Modelling, IS16 ◆ Moment Condition Models: Identification Issues and Inference, IS17 ◆ Recent Developments in Cure Rate Model, IS24 ◆ Stochastic Methods in Finance, IS32 ◆ Use of Machine Learning Procedures for Survey Data, IS34 ◆ Survival Analysis and Causal Inference Applied to Forest Fire Data, IS33 ◆ Contributed Papers Session II, CS2 	
17:00 - 17:30	Break	
17:30 - 18:30	Plenary Session PS3 Christian Genest, McGill University, Montreal	
18:30 - 19:00	Break	
19:00 - 20:00	Plenary Session PS10 - CANCELLED Rob Tibshirani, Stanford University	

July 17, 2021 (Saturday)	Event/Details	Note
09:00 - 10:00	Plenary Session PS4 Robert E. Kass, Carnegie Mellon University	
10:00 - 10:30	Break	
10:30 - 12:00	Parallel Sessions <ul style="list-style-type: none"> ◆ Advances in Actuarial Science – 3, IAS3 ◆ Inference in Survival Data, IS13 ◆ Recent Advances in Econometrics, IS22 ◆ Recent Advances in Semi-Parametric Mixture Models, IS23 ◆ Risk Modeling, IS25 ◆ Small Area Estimation, IS26 ◆ Some Recent Advances in Statistical Inference, IS27 ◆ Statistics and Deep Learning, IS31 ◆ Contributed Papers Session III, CS3 	
12:00 - 12:30	Break	
12:30 - 13:30	Plenary Session PAS1 Jun Cai, University of Waterloo	

13:30 - 14:00	Break	
14:00 - 15:00	Plenary Session PS6 J. Sunil Rao, University of Miami	
15:00 - 15:30	Break	
15:30 - 17:00	Parallel Sessions <ul style="list-style-type: none"> ◆ Advances in Actuarial Science – 4, IAS4 ◆ Applications of Survival Analysis, IS3 ◆ Ecological Statistics: Opportunities and Challenges, IS9 ◆ Latent Variables and Their Applications, IS14 ◆ Recent Advances in Analysis Involving Misclassification, IS21 ◆ Recent Advances in Adaptive Treatment Strategies, IS20 ◆ Statistical Genetics in Canada, IS29 ◆ Contributed Papers Session IV, CS4 ◆ Graduate Poster Session, GP 	
17:00 - 17:30	Break	
17:30 - 18:30	Judging of Graduate poster Session <ul style="list-style-type: none"> ◆ Special Contributed Paper Session-Financial Engineering, SCS1 ◆ Special Contributed Paper Session- Statistical Modeling of COVID-19 Pandemic, SCS2 ◆ Graduate Poster Session (for Judges only) 	
18:30 - 19:30	Plenary Session PS1 W. John Braun, UBC Okanagan	

July 18, 2011 (Sunday)	Event/Details	Note
09:00 - 10:00	Plenary Session PS7 Nancy Reid, University of Toronto	
10:00 - 10:30	Break	
10:30 - 12:00	Parallel Sessions <ul style="list-style-type: none"> ◆ Advances in Actuarial Science – 5, IAS5 ◆ Advances in Copula-based Inference, IS1 ◆ Bayesian Applications, IS4 ◆ Environmental Statistics, IS10 ◆ Financial Engineering, IS11 	

	<ul style="list-style-type: none"> ◆ New developments in survey sampling and missing data problems, IS18 ◆ Novel Bayesian Adaptive Clinical Trial Designs for Precision Medicine, IS19 ◆ Statistical Methods for Health Administrative Data, IS30 	
12:00 - 12:30	Break	
12:30 - 13:30	Plenary Session PAS3 Manuel Morales, University of Montréal	
13:30 - 14:00	Break	
14:00 - 15:00	Plenary Session PS8 Louis-Paul Rivest, Université Laval	
15:00 - 15:30	Break	
15:30 – 16:30	Plenary Session PS9 David Stephens, McGill University	
16:30 - 17:00	Break	
17:00 - 18:00	Concluding Session (Felicitation to Jose + Misc. + Vote of Thanks)	

Volunteer Recognition

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Graduate Student, Concordia University

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Graduate Student, Concordia University

Ramin Eghbalzadeh

Graduate Student, Concordia University

Cameron Gallinger

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