Canadian Network for Regional Climate and Weather Processes Annual science meeting

May 03-05, 2017

UQÀM, Agora Hydro-Québec

175 Avenue du Président Kennedy, Montréal, QC, Canada



Wednesday, May 03

Time	Title	Presenter	
08:15 - 09:00	Registration & breakfast		
09:00 - 09:15	09:00 - 09:15 Welcome remarks		
09:15 - 09:40	CNRCWP update and research highlights	Laxmi Sushama UQÀM	
	Theme A: Specific weather and climate phenomena permitted by high-resolution		
09:40 - 09:55	Environmental conditions that facilitate extreme precipitation events	John Gyakum McGill University	
09:55 - 10:10 The importance of wave break events for synoptic-scale buildups of zonal available potential energy		Kevin Bowley McGill University	
10:10 - 10:25	A surface dynamic and thermodynamic analysis of long-duration freezing rain events Christ McCra		
10:25 - 10:45	Coffee break		
10:45 - 11:05	Some tools and results from our research into Temperature Extremes	Richard Grotjahn UCDavis	
11:05 - 11:20	Simulations of an ice storm using a predicted bulk liquid fraction Meli UQAI		
11:20 - 11:35	Investigating added value of regional climate modelling in North American winter storm track simulations Emmanuel UQAM		
11:35 - 12:00	Open discussion on theme A		
12:00 - 13:30 Lunch & Posters			
	Theme B: Statistical extremes allowed by fine mesh and land- atmosphere feedbacks		
13:30 - 13:45	North American extreme rainfall events under climate change	Andreas Prein NCAR	
13:45 - 14:00	Mohamed 45 - 14:00 Probable maximum precipitation (PMP) Alaya University of		
14:00 - 14:20	Challenges associated with projecting changes in sub-daily precipitation extremes	Xuebin Zhang CDAS, ECCC Francis Zwiers PCIC	
14:20 - 14:40	Extreme weather in a changing climate	Michael Wehner Lawrence Berkeley National Lab	

Time	Title	Presenter	
14:40 - 14:55	Dynamical downscaling of CanCM4 seasonal forecasts over North America	Gulilat Diro UQÀM	
14:55 - 15:15	Coffee break		
15:15 - 15:35	Tropical cyclone activity enhanced by Sahara greening and reduced dust emissions during the African Humid Period Francesco Pausata Stockholm U		
15:35 - 15:55	Targeted analysis of extremes for the impact and adaptation community Dae II Jeo UQÀM		
15:55 - 16:10	Budget studies of transient-eddy and internal variability in Global and Regional Climate Model simulations	Oumarou Nikiéma UQÀM	
16:10 - 16:35	Open discussion on theme B		
16:45 - 17:45	Special meeting: Network HQP meeting, PK-1140		
16:45 - 17:45	Informal discussions/meetings; Arctic Terrestrial Modeling workshop committee meeting		
18:00 - 20:00	Dinner (for all participants)		

Thursday, May 04

Time	Title	Presenter	
08:30 - 09:15	Registration (for people joining on day two) & breakfast		
	Theme C: Land-surface processes enhanced by improved representation of surface heterogeneity		
09:15 - 09:35	Overview of the ECCC's Ice-Atmosphere-Ocean short-term prediction system for the Arctic	Jason Milbrandt RPN, ECCC	
09:35 - 09:50	Regime Transitions of Stratification and Turbulence-Convection Interaction Based on Observations and a New Diagnostic Turbulence Scheme in CanAm4 Climate Models	Yanping He University of Victoria	
09:50 - 10:10	Changing Arctic terrestrial snow cover: an update of current understanding	Ross Brown CPS, ECCC	
10:10 - 10:30	The importance of the 3-D structure of the surface to the land- atmosphere exchanges	Eleanor Blyth NERC, UK	
10:30 - 10:50	Coffee break		
10:50 - 11:05	A strategy to represent impacts of subgrid-scale topography on snow evolution in the Canadian Land Surface Scheme	Rachel Hay University of Northern British Columbia	
11:05 - 11:20	Subgrid snow parameterization in CRCM5/CLASS	Arman Ganji UQÀM	
11:20 - 11:35	Similarities and dissimilarities in the evolution of the Canadian Arctic and Western Canadian Glaciers in a future warmer climate	Caio Ruman UQÀM	

Time	Title	Presenter	
11:35 - 11:55	Canadian Land data assimilation system	Stéphane Bélair ECCC	
11:55 - 12:10	Distributed modelling of glacier mass balance and meltwater runoff in Western and Arctic Canada	Shawn Marshall University of Calgary	
12:10 - 13:30	Lunch & Posters		
13:30 - 13:50	The Coordinated Regional Downscaling Program (CORDEX): Research and support for climate services	William Gutowski Iowa State University	
13:50 - 14:05	Temperature extremes modulated by migrating tree-line	Bernardo Stephan Teufel UQÀM	
14:05 - 14:25	Recent development and application of CLASS-CTEM	Joe Melton ECCC	
14:25 - 14:40	Lake effect snow in current and future climate for the Great Lakes region	Oleksandr Huziy UQÀM	
14:40 - 14:55	Climatological assessment of spatiotemporal trends in monthly snowfall totals and extremes over the Laurentian Great Lakes Basin University		
14:55 - 15:15	Coffee break		
15:15 - 15:35	CLASS-related developments, specifically the regional testing of a new lake model	Diana Verseghy ECCC	
15:35 - 15:50	Application of new urban roughness parameterization in single-layer Urban Canopy Model for WRF and its application for future urban climate projection	Nisrina Setyo/ Alvin Varquez Tokyo Institute of Technology	
15:50 - 16:05	Accounting for pothole associated non-contributing areas in the land surface scheme	Arman Ganji UQÀM	
16:05 - 16:20	The role of snow trend and variability on the future snow- atmosphere coupling Gulilat Direction		
16:20 - 16:45	Open discussion on theme C		
16:50 - 17:50	Special meetings: Scientific Advisory Board (SAB) meeting with HQP and network partners, Agora; Meeting of co-investigators, PK-1140		
17:00 - 18:00	Cocktail provided by CMOS		
18:00 - 20:00	Dinner (for all participants)		

Friday, May 05

Time	Title	Presenter
08:30 - 09:15	Breakfast	
09:15 - 09:30	NSERC evaluation of NSERC-CCAR program - Case study of CNRCWP and overall evaluation findings	Elyse McCall Thomas

09:30 - 09:45	Future of high performance computing in Canada	Suzanne Talon Compute Canada	
09:45 - 11:15	NEI enhanced technology transfer: status and plans (15 min talks by network partners and discussion)	 Anne Walker ECCC Michael Vieira Manitoba Hydro Anne Frigon Ouranos Arelia Schoeneberg PCIC Ram Yerubandi WSTD Laxmi Sushama CNRCWP 	
11:15 - 11:35	Coffee break		
11:35 - 12:35	Discussion: Accomplishments, knowledge gaps, emerging topics, end-user feedback SAB, Theme CORE		
12:35 - 12:50	Closing remarks	Laxmi Sushama UQÀM	
12:50 - 14:00	Lunch		
14:00 - 16:00	Special meeting: Joint SAB-SSC meeting, PK-1140		

May 03 — May 04, Posters

Title	Presenter
Simulations of the Montreal urban heat island	Francois Roberge UQÀM
Quantifying the role of urban surfaces in regional climate prediction systems	Gemechu Fanta UQÀM
Sub-grid representation of snow in Land Surface Models	Arman Ganji UQÀM
Projected changes to surface wind characteristics and extremes over North America in CRCM5	Dae II Jeong uqàm
The projected impact of dynamic vegetation on climate change over the pan- Arctic	Bernardo Stephan Teufel UQÀM
Added value of dynamical downscaling of winter seasonal forecasts over North America	Gulilat Tefera Diro UQÀM
Retreating Canadian glaciers and their implications for regional climate and hydrology in future climate	Caio Ruman UQÀM
On the representation of heavy lake-effect snow events for the Laurentian Great Lakes region in a Regional Climate Model	Oleksandr Huziy UQÀM
Characteristics of high-impact long-duration freezing rain events over North America	Christopher McCray McGill University
Probabilistic description of probable maximum precipitation	Mohamed Ali Ben Alaya CCCma, PCIC

Title	Presenter
Synoptic-scale zona available potential energy increases in the Northern Hemisphere	Kevin Bowley McGill University
Understanding and representing stable boundary laver over cold regions based on observations and a new diagnostic turbulence scheme in CanAm4 Climate Models	Yanping He University of Victoria
Climatological assessent of spatiotemporal trends in observational monthly snowfall totals and extremes over the Canadian Great Lakes Basin	Janine Baijnath University of Waterloo
Detection and attribution of Spring Snow Equivalent (SWE) changes over the Northern Hemisphere	Dae II Jeong UQÀM
Impact of urban regions on the surface energy and water partitioning over east North America	Gemechu Fanta UQÀM
Accounting for pothole associated non-contributing area in the Canadian Land Surface Scheme	Arman Ganji UQÀM
Simulations of ice pellets and freezing rain using an explicit parameterization of the bulk liquid fraction of ice particles	Melissa Cholette UQÀM
On the study of a major ice pellet storm in the Toronto area in a climate change context	Sébastien Marinier UQÀM
Evaluation of the added value of high resolution in the Canadian Regional Climate Model for freezing rain	Médéric St-Pierre UQÀM
Climate change study of mixed precipitation over southern Quebec using a Regional Climate Model	Dominic Matte UQÀM

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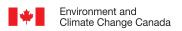










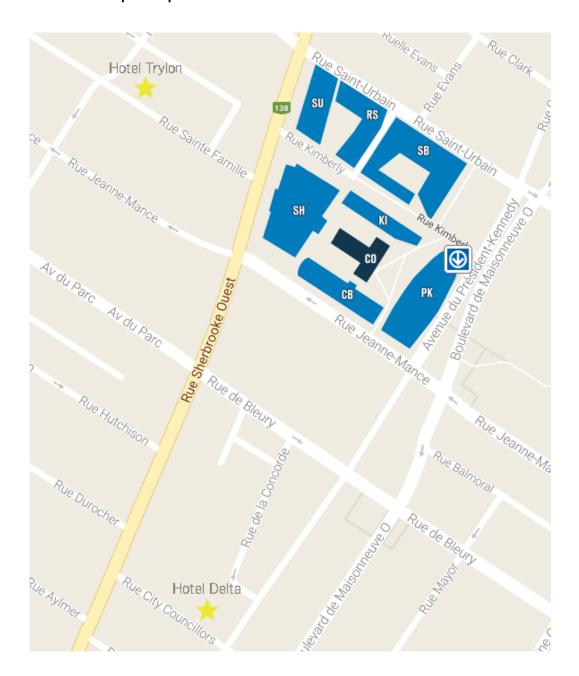


List of participants

List of participants			
	Name	Affiliation	
1	Alexandru, Adelina	UQÀM, ESCER	
2	Baijnath, Janine	University of Waterloo	
3	Bélair, Stéphane	ECCC - RPN	
4	Ben Alaya, Mohammed Ali	CCCma, PCIC	
6	Biner, Sebastien	Ouranos	
7	Blanchet, Jean-Pierre	UQÀM, ESCER	
8	Blyth, Eleanor	NERC, UK	
9	Bourque, Alain	Ouranos	
10	Bowley, Kevin	McGill University	
11	Brown, Ross	Ouranos	
12	Brunet, Gilbert	ECCC - RPN	
13	Casati, Barbara	ECCC - RPN	
14	Charron, Martin	ECCC - RPN	
15	Chaumont, Diane	Ouranos	
16	Cholette, Mélissa	UQÀM, ESCER	
17	Côté, Hélène	Ouranos	
18	Coursol, Laurence	UQÀM, ESCER	
19	Couture, Gilles	UQÀM	
20	DeBeer, Chris	CCRN	
21	de Elía, Ramón	Servicio Meteorológico Nacional, Argentina, ESCER	
22	Déry, Stephen	University of Northern British Columbia	
23	Desroches-Lapointe, Aurélie	UQÀM	
24	Diaconescu, Emilia Paula	Ouranos	
25	Diro, Gulilat Tefera	UQÀM, ESCER	
26	Duarte, Luis	UQÀM, ESCER	
27	Dugas, Bernard	UQÀM, ESCER	
28	Duguay, Claude	University of Waterloo	
29	Fanta, Gemechu	UQÀM, ESCER	
30	Fournier, Élyse	Ouranos	
31	Frigon, Anne	Ouranos	
32	Gachon, Philippe	UQÀM, ESCER	
33	Ganji, Arman	UQÀM, ESCER	
34	Garnaud, Camille	ECCC - RPN	
35	Gauthier, Pierre	UQÀM, ESCER	
36	González Linares, Mónica	UQÀM, ESCER	
37	Grotjahn, Richard	University of California Davis	
38	Giguère, Michel	Ouranos	
39	Graillon, Lucas	UQÀM, ESCER	
40	Gutowski, William	Iowa State University	
41	Gyakum, John	McGill University	
42	Hamzaoui, Cherif	UQÀM	
43	Harvey, Richard	Ouranos	
44	Hay, Rachel	University of Northern British Columbia	
45	He, Yanping	University of Victoria	
46	Hesaraki, Sareh	UQÀM, ESCER	
47	Huard, Georges	UQÀM, ESCER	
48	Huziy, Oleksandr	UQÀM, ESCER	
49	Jeong, Dae II	UQÀM, ESCER	
50	Keita, Setigui Aboubacar	UQÀM, ESCER	
51	Laprise, René	UQÀM, ESCER	
52	Leduc, Martin	UQÀM, ESCER	
53	León, Luis	ECCC - WSTD	
54	Leroyer, Sylvie	ECCC - RPN	

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56	Logan, Travis	Ouranos
57	Madan, Gaurav	UQÀM, ESCER
58	Marinier, Sébastien	UQÀM, ESCER
59	Marshall, Shawn	University of Calgary
60	Martineu, Pascale	UQÀM
61	Matte, Dominic	UQÀM, ESCER
62	McCall Thomas, Elyse	NSERC
63	McCray, Christopher	McGill University
64	McFadden, Vanessa	UQÀM, ESCER
65	Melton, Joe	ECCC - CPS
66	Milbrandt, Jason	ECCC - RPN
67	Monteiro, Diego	UQÀM, ESCER
68	Monteiro, Eva Rosa	UQÀM, ESCER
69	Moreno Ibáñez, Marta	UQÀM, ESCER
70	Music, Biljana	Ouranos
71	Nikiéma, Oumarou	UQÀM, ESCER
72	Ngueto, Yves Franklin	UQÀM, ESCER
73	Paquin, Dominique	Ouranos
74	Pausata, Francesco	University Stockholm
75	Pelletier, Ludovick S.	UQÀM, ESCER
76	Pierre, Adrien	Ouranos
77	Poan, Emmanuel	UQÀM, ESCER
78	Prein, Andreas	NCAR
79	Purcell, Karl	UQÀM, ESCER
80	Roberge, François	UQÀM, ESCER
81	Rondeau-Genesse, Gabriel	Ouranos
82	Roy, René	Ouranos
83	Roy, Sylvie	NSERC
84	Ruman, Caio	UQÀM, ESCER
85	Sankare, Housseyni	UQÀM, ESCER
86	Scinocca, John	ECCC - CCCma, University of Victoria
87	Schoeneberg (Werner), Arelia	PCIC
88	Serrano Damha, Camilo Ismael	UQÀM
89	Setyo, Nisrina	Tokyo Institute of Technology
90	Sharp, Rawni	NSERC
91	St-Pierre, Médéric	UQÀM, ESCER
92	Sushama, Laxmi	UQÀM, ESCER
93	Talon, Suzanne	Compute Canada
94	Teufel, Bernardo Stephan	UQÀM, ESCER
95	Thériault, Julie	UQÀM, ESCER
96	Valin, Michel	UQÀM, ESCER
97	Verseghy, Diana	ECCC - CPS, UQÀM
98	Vieira, Michael	Manitoba Hydro
99	Walker, Anne	ECCC - CPS
	Wehner, Michael	Lawerence Berkeley National Lab
	Winger, Katja	UQÀM, ESCER
	Yerubandi, Ram	ECCC - WSTD
103	Zhang, Xuebin	ECCC - CDAS

UQAM Science campus map



The Agora conference room is located in the CO building.