WEATHER CLIMATE WATER TEMPS CLIMAT EAU



WMO OMM

World Meteorological Organization Organisation météorologique mondiale Organización Meteorológica Mundial Всемирная метеорологическая организация المنظمة العالمية للأرصاد الجوية 世界气象组织



28 August 2025

Secrétariat

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Our ref.: 6434333/2025/SI/WWR

Annexes: 2

Subject: Invitation to attend the WWRP Joint Working Group for Forecast Verification and

Research (JWGFVR) Bi-annual Meeting and AI Workshop in Montreal, Canada

Dear Sir/Madam,

I have the pleasure of inviting you to attend the bi-annual WWRP Joint Working Group for Forecast Verification and Research (JWGFVR) Bi-annual Meeting of the World Weather Research Programme (WWRP) and Artificial Intelligence (AI) Workshop, which will be hosted by the Canadian Meteorological Center (CMC), in Montreal, Canada, from 20 to 23 October 2025.

This meeting will provide an opportunity to discuss ongoing research, strengthen collaborations, and define future priorities for our working group. The AI workshop will bring together international experts from JWGFVR, WGNE, and ECCC (MSC and MRD) to address the emerging challenges of verifying AI models alongside traditional NWP systems. More information about the workshop can be found at:

More information on this meeting can be found in the following site: https://hpfx.collab.science.gc.ca/~bca851/@.. The agenda of the meeting and the AI workshop is attached in ANNEX I.

Due to the limited availability of funds, WMO requests that all invited participants seek financial support through their respective organizations or national funding agencies. However, if required, WMO will provide you with travel support to attend the event in the form of the most direct and economic air ticket and Daily Subsistence Allowance (DSA), which will cover your accommodation and meals.

You are responsible for obtaining the necessary visas to enter Canada and any other countries you may be transiting, if appropriate.

Regarding insurance coverage for non-staff members, may I draw your attention to the following:

"Non-staff members of WMO who are authorized to travel at the Organization's expense and/or who are receiving a DSA from WMO must ensure they are fully responsible for expenses incurred in the event of death, illness or injury during official travel and attendance at meetings on behalf of the Organization. They are, therefore, fully responsible for arranging life, health, accident, as well as any other forms of insurance with an adequate level of coverage for the duration of such meetings and events. WMO liability is limited to the performance of services or attendance at a meeting on behalf of the Organization, is covered by an injury and illness benefit insurance which provides a limited coverage for medical, emergency and supplementary official travel expenses."

To: Members of the WWRP Joint Working Group for Forecast Verification and Research (JWGFVR) (see ANNEX II)

Should you require further information or clarification, please do not hesitate to contact Ms Hellen Msemo, WWRP Scientific Officer, by email (hmsemo@wmo.int).

Yours faithfully,

Dr Estelle De Coning Chief, World Weather Research Section Science and Innovation Department

JWGFVR bi-annual meeting and AI verification workshop

Montreal, Canada, 20-23 October 2025

Meeting Locations

Monday and Tuesday 20-21 October:

 JWGFVR meets in the Dominique-Ducharme Building, located at 105 McGill Street/400 Place d'Youville, Montreal (QC), H2Y 3N4, meeting room Breda Nadon.

This will be a closed JWGFVR meeting, the scientific agenda is on the next page.

Tuesday lunch-time seminar, by Angeline Pendergrass.

PK Building (Pavillon Président-Kennedy) at UQAM, on the 6th floor.
 201, avenue du Président-Kennedy, Montréal, QC H2X 3Y7

Wednesday and Thursday 22-23 October:

- JWGFVR will facilitate a 1.5 day workshop with theme "AI verification in operational centers", in the Salle des Vents (meeting room 107) at the Canadian
 Meteorological Center (CMC), 2121 Transcanada hwy (Dorval), H9P 1J3. Detailed workshop information (including the most updated programme) can be found on the workshop website:
 - https://hpfx.collab.science.gc.ca/~bca851/VerAIops2025/index.html A tentative programme, and some key information, is at page 3 of this document. o Thursday afternoon the JWGFVR will meet in the **Salle du DG (336)**, for a 1-hour wrap-up meeting.
 - This will be a closed JWGFVR meeting, MS-Teams connection for remote attendance is **Join the meeting now** (Meeting ID: 224 554 749 318 7; Passcode: gU6Sh97n).
- The rest of Thursday afternoon is available for further discussion and networking with other ECCC researchers, prior departure.

Important note: all ECCC building are government facilities and have a **security screening** at entrance. **You must have a personal ID with photo**, to be shown/left with security during your visit (e.g. a driving license), otherwise you cannot access the building.

JWGFVR close meeting – Monday and Tuesday 20-21 October 2025 Tentative Agenda

Meeting room: Breda Nadon, **Dominique-Ducharme Building**,105 McGill Street/400 Place d'Youville, Montreal (QC), H2Y 3N4. Nearest metro-station is Square Victoria, orange line.

Bring a personal ID for security clearance.

Virtual: Join the meeting now, Meeting ID: 267 890 340 325 3, Passcode: TE2uF3Zk

Monday 20th October		
8h30-10h00	Caio: sub-seasonal verif Ramon South America PP	
Coffee		
10h30-12h00	Invite endorsed projects	
Lunch		Le Cartet Resto-Boutique
13h30-15h00	Romain Pic: bridging the gap Some discussion on WP-MIP	
Coffee		
15h30-17h00	Ramon: AvRDP James (UTC+11, online): InPrha	
Dinner (no-host)		
Tuesday 21st October		
8h30-11h00	Alfred: TBA Javier MEDUSSE Barbara: polar PCAPS	
Coffee + walk to UQAM		
12h00-13h00	A. Pendergrass Seminar	UQAM PK building 6 th floor
Lunch		
15h30-17h00	Discussion on WWRP and other projects, collaborations Discussions on training and conference events	
Dinner (no-host)		

Lunches: Le Cartet Resto-Boutique, 106 McGill St, Montreal, Quebec H2Y 2E5

Tel:+1(514)871-8887

https://www.lecartet.ca/.

This small French bistro offers simple lunch options (such sandwiches, salad, brunches) for 20\$-30\$. They offer catering options too (for the coffees).

JWGFVR+ECCC+WGNE workshop "AI verification in operational centers" Wednesday and Thursday 22-23 October 2025

Tentative Agenda

Organizer and contact: Barbara Casati, email (<u>barbara.casati@ec.qc.ca</u>)

Workshop web-page: https://hpfx.collab.science.gc.ca/~bca851/VerAIops2025/index.html

Meeting room: Salle des Vents (107), at the Canadian Meteorological Center (CMC),

2121 Transcanada hwy (Dorval), H9P 1J3, Canada.

CMC can be reached by bus 215, from metro station Côte-Vertu (orange line), or by taxi (most convenient, approximately 50\$-60\$ from downtown Montreal).

If you plan to attend in person, **bring a personal ID for security clearance**.

Online attendance: please note that the agenda refers to local Montreal times (UTC-4), and that solely registered participants will receive the MS-team link to attend the workshop.

Wednesday 9:00-12:00	Session 1: Novel verification approaches for AI-model	Join the meeting now Meeting ID: 232 933 313 722 8 Passcode: ES7BG2VL
	Ron McTaggart-Cowan (ECCC): the Weather Prediction Model Intercomparison Project (WP-MIP)	
	Jochen Broecker (Uni.Reading, UK): VerAI workshop outcomes and way forwards	
	• Romain Pic (Uni.Geneva, Switzerland): bridging the gap between spatial verification and proper scoring rules	
	Chris Subich (ECCC): "Fixing the Double Penalty in Data-Driven Weather Forecasting Through a Modified Spherical Harmonic Loss Function"	
	Sebastian Lerch, Tillman Gneiting, Alexander Jordan "Probabilistic measures for fair comparisons of AIWP and NWP models" (online)	
	Discussion	

lunch		
Wednesday 13:00-16:00	Session 2: Verification practices in operational centers	Join the meeting now Meeting ID: 224 939 065 450 2 Passcode: Gp6Xx62s
	 Nick Loveday (BoM, Australia): the BoM operational verification system and the python package "scores" TBA Discussion 	
Thursday 9:00- 12:00	Session 3: AI-model verification in operational practices	Join the meeting now Meeting ID: 243 747 030 072 7 Passcode: 9eW6e3Fu
	 Zied BenBouallegue (ECMWF): verification methods for AI-based models Sabrina Whal (DWD, Germany): How AI models affect operational verification at DWD Leo Separovic (ECCC): leveraging power spectra to compare AI and physically based prediction systems TBA Discussion 	
lunch		

Thursday afternoon the JWGFVR will meet in the **Salle du DG (336)**, for a 1-hour wrap-up meeting. This will be a closed meeting JWGFVR+WPMIP+WGNE+ECCC <u>few</u> experts; MS-Teams connection for remote attendance is <u>Join the meeting now</u> (Meeting ID: 224 554 749 318 7; Passcode: gU6Sh97n).

Transports

from/to YUL

airport

- The Pierre-Elliot Trudeau (YUL) International Airport is located on the island of Montreal. Montreal downtown can be reached from the airport either or by taxi (most convenient, approximately 50\$-60\$), or via the bus 747 for 11.00\$. Schedule and ticket information are available at: Buses | Aeroports De Montreal.
- CMC is located near the Pierre-Elliot Trudeau (YUL) International Airport. It takes approximately 20' by taxi to go from the CMC to the airport, on minor traffic roads. For departure, shared taxi rides can be arranged at CMC on Thursday afternoon, at the reception desk. There is no convenient public transport from CMC to the airport.

In Montreal

Montreal is served by a dense network of buses and four metro-lines. The metro is the most convenient / fastest transport within Montreal, since not affected by the traffic. The DDB building is located near the Square Victoria metro-station, on the orange line. The orange line pass also through the Plateau Mont-Royal (metro stops Mont-Royal and Laurier), Downtown and near the Old Port (metro stops Champ-de-Mars, Place-d'armes and Square Victoria), as well as Côte-Vertu (terminal of the bus 215, which arrives at CMC). The high-frequency bus 55 runs along Boulevard St. Laurent and connects also the Mile end and Plateau Mont-Royal quarters with Downtown Montreal.

Schedules for the metro and buses can be found on the Société de transport de Montréal (STM) web site: <u>STM | Société de transport de Montréal</u>. Tickets can be purchased at any metro station, on the bus you need exact change, 10-passage forfeits and three-day tickets are the most convenient if planning to take the public transports often.

From / to CMC



CMC is located in the outskirts of Montreal. It can be reached from Montreal either or by taxi (most convenient, approximately 50\$-60\$ from downtown), or by the bus 215, from metro station Côte-Vertu (orange line). The time schedule of the bus 215 is available on the Société de transport de Montréal (STM) website: – Montréal. The CMC stop is Deacon-St-Regis.

Suggested Accommodations

Air BnB: https://www.airbnb.ca/

There are several options of AirBnB ranging from 150\$ to 300\$. Suggested locations for AirBnB are the Mile End and the Plateau Mont-Royal, Old Montreal and the Old port, Downtown Montreal West, near the Montreal museum of fine arts (see map). Montreal is overall a safe city, but we suggest avoiding the Gare Central – Bonaventure metro-station and the Berri-UQAM square and bus station. An accommodation in a location near a metro-station of the orange line enables you a convenient transport to the DDB and CMC.

Hotels at walking distance from the CMC (range around 150-200\$ / night): Home 2 Suites by Hilton,1855 Rte Transcanadienne, Dorval, Quebec, H9P 1J1, Canada https://www.hilton.com/en/hotels/yulmdht-home2-suites-montreal-dorval/

Microtel Inn & Suites Wyndham, 1695 Rte Transcanadienne Nord, Dorval, QC, H9P1J1, Canada

https://www.wyndhamhotels.com/microtel/dorval-quebec/microtel-inn-and-suites-montreal-airport-dorval-qc/overviewsuites-montreal-airport-dorval-qc/overview

Hotels nearby DDB (range around 250\$ / night):

Hotel St.Paul, 355 McGill St, Montreal, Quebec H2Y 2E8 https://hotelstpaul.com/en/

Hôtel Uville Montréal, 204 Pl. d'Youville, Montreal, Quebec H2Y 2B4 https://uvillehotelmontreal.com/

LHotel, 262 Rue Saint-Jacques, Montréal, QC H2Y 1L9 https://www.lhotelmontreal.com/en

Hotel Bonaparte, 447 Saint Francois Xavier St, Montreal, Quebec H2Y 2T1 https://bonaparte.com/fr/

Hotel William Grey, 421 R. Saint-Vincent, Montréal, QC H2Y 3A4 https://hotelwilliamgray.com

Some suggested lunch and dinner venues:

Lunch or Dinner near CMC:

3 Brasseurs, 46-A Brunswick blvd, Pointe-Claire, QC, H9B 2L3, Canada Tel: +1(514)-370-5590

https://www.3brasseurs.ca/fr/trouver-un-3-brasseurs/pointe-claire

Aikawa Sushi, 3237 Sources Blvd #34c, Dollard-Des Ormeaux, Quebec H9B 1Z6, Canada.

Tel:+1 (514) 684-4333

https://aikawasushi.order-online.ai

Dinner in the Old Port:

Holder, 407 McGill St, Montreal, Quebec H2Y 2G3, Canada.

Tel: +1(514)849-0333

https://restaurantholder.com/

La Modavie (jazz bar), 1 Saint-Paul St W, Montreal, Quebec H2Y 1Y6, Canada.

Tel: +1(514)287-9582 https://modavie.com/en/

Mignon (steak house), 101 Saint-Paul St W, Montreal, Quebec H2Y 1Z5, Canada.

Tel:+1(514)844-9663 https://mignonsteak.com/

Jardin Nelson (terrace restaurant), 407 Pl. Jacques-Cartier, Montréal, QC H2Y 1G9, Canada.

Tel:+1(514)861-5731 https://jardinnelson.com/

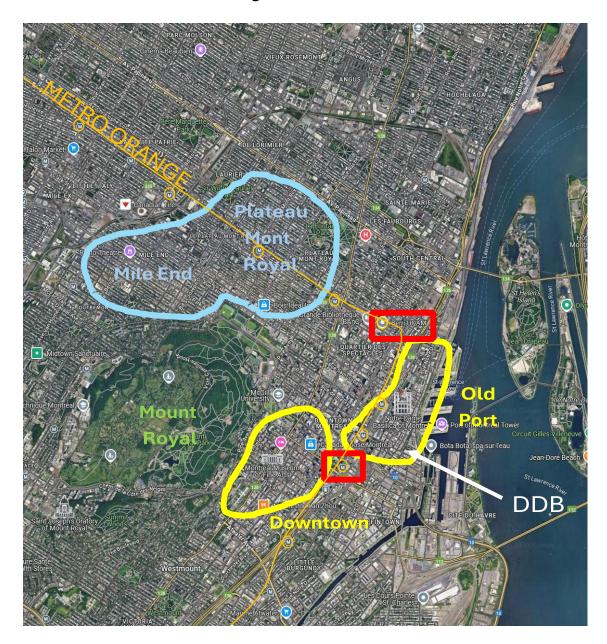
Brunch or dinner in Mile End:

Les Enfants Terribles (French bistro), 1257 Bernard Ave, Outremont, Québec H2V 3P6, Canada.

Tel: +1(514)759-9918

https://www.jesuisunenfantterrible.com/restaurants/outremont

Montreal - MAP and overarching information



Recommended areas for **accommodation** are **Montreal** near "the Montreal museum of fine arts" (between McGill and Guy Concordia metro) and the **Old Port** (near the Basilica of Notre-Dame, between the river, rue St. Antoine and Rue McGill / metro Square Victoria). An accommodation near a metro-station of the **orange line** enables access to public transport to DDB and CMC (**bus 215 from the metro terminal Côte-Vertu**). There are several **restaurant options** on the **Plateau** along **rue Mont-Royal**, and in the **Mile End** (ave. du Parc, ave. St. Laurent, rue Bernard, rue Laurier), further than at the **Old Port**. Montreal is overall a safe city, but we suggest **avoiding the Gare Central – Bonaventure metro-station and the Berri-UQAM square and bus station**.



The **Dominique-Ducharme Building (DDB)** is an historical heritage building (formerly Montréal Customs Building), located at 105 McGill Street/400 Place d'Youville, in the core of the old Montreal historical and business center, only few blocks from Musee de Pointe a Calliere and the Basilique Notre-Dame. It is near the United Nation headquarters and the Square Victoria metro station on the orange line.

Suggested visits:

Walk around Old Montreal: Place d'Youville, La Place Royale, Basilique de Notre-Dame, rue St. Paul and place Jacques-Cartier + Hotel de Ville (Town Hall), the Marche Bon-secours, Notre-Dame-de-Bon-Secours Chapel, the Old Port clock tower.





Musee de Pointe-à-Callière (https://pacmusee.qc.ca/en/): one block from the DDB building – this Montreal Museum of Archaeology and History tells the origins of Montreal (and Canada too). It takes from 2 to 6 hours to visit the whole museum.

McGill campus and the RedPath Museum (https://www.mcgill.ca/redpath/; Natural History); Kondiaronk Belvedere (overlooking downtown Montreal skyline) at the top of Mont-Royal (1h hike from McGill campus, access from Rue Peel Grand Staircase).

Dining -in the evenings: the old port offers several restaurants. The Plateau Mont-Royal (rue Mont-Royal and rue Laurier, as well as St. Laurent and Ave du Parc) and the Mile End (between rue Bernard and rue Fairmont, around Ave du Parc) offer a vast choice of restaurants and cafés in a vibrant atmosphere "Montrealaise": brush-up your French! Remember to grab a freshly backed bagel from Fairmont or St. Viateurs bagels.

Suggested plane readings – Canadian / Montreal's writers:

Farley Mowat: Never cry wolf, Lost in the Barren, and many more

Mordecai Richler: Barney's Version, The Apprenticeship of Duddy Kravitz

6434333/2025/SI/WWR, ANNEX II

List of participants

WWRP JWGFVR Bi-Annual Face-to-Face Meeting and AI Workshop Montreal, Canada, 20 – 23 October 2025

Name	Organization	Country	Role
Dr Sabrina WAHL	DWD	Germany	Group Member
Dr Zied BEN BOUALLEGUE	ECMCF	United Kingdom	Group Member
Dr Jochen BROECKER	University of Reading	South Africa	Group Member
Dr Angie PENDERGRASS	Cornell University	United States of America	Group Member
Dr Caio COELHO	INPE	Brazil	Co-chair
Dr Barbara CASATI	Environmental Canada	Canada	Co-chair
Dr Alfred Lawrence KONDOWE	Tanzania Meteorological Authority (TMA)	Tanzania	Group Member
Dr Anumeha DUBE	NIC (National Informatics Centre)	India	Group Member
Dr Eric GILLELAND	Colorado State University	United States of America	Group Member
Dr Ramón DE ELÍA	Argentina Meteorological Services	Argentina	Group Member
Mr Nicholas LOVEDAY	ВОМ	Australia	Group Member
Dr James BENNETT	CSIRO	Australia	Group Member
Dr Javier GARCIA-SERRANO	University of Barcelona	Spain	Group Member
Ms Hellen MSEMO	WMO	Switzerland	WMO Secretariat