Online workshop on High-Resolution Climate Modelling

14-22 December 2026

Agenda		
Hour [UTC]	**Subject**	**Lecturer**
	14 Dec. 2026	
7:00 - 7:15	Opening	Mr. Mustafa Adiguzel WMO Ms. Zehavit Ben Hillel MASHAV Dr. Amir Givati, IMS
07:15 - 8:45	The Advantages of High-Resolution Climate Models	Dr. Amir Givati, IMS
8:45 - 9:00	**Coffee break**	
9:00 - 9:45	Introduction to High-Resolution Numerical Modelling	Dr. Pavel Khain, IMS
9:45 - 10:00	**Coffee break**	
10:00 - 10:45	Climate Change Indices	Dr. Yizhak Yosef, IMS
	15 Dec. 2026	
7:00 - 7:45	High-Resolution Climate Modelling	Dr. Pavel Khain, IMS
7:45 - 8:00	**Coffee break**	
8:00 - 8:45	If you do not have the computing resources required to run a high-resolution climate model - hands-on	Dr. Theodor Bughici Dr. Yoav Levi, IMS
8:45 - 9:00	**Coffee break**	
9:00 - 9:45	If you do not have the computing resources required to run a high-resolution climate model - hands-on	Dr. Theodor Bughici Dr. Yoav Levi, IMS
	16 Dec. 2026	
7:00 – 7:45	Statistical Downscaling Theory	Dr. Assaf Zipori, IMS
7:45 - 8:00	**Coffee break**	

8:00 - 8:45	Statistical Downscaling Hands-On	Dr. Assaf Zipori, IMS
8:45 - 9:00	**Coffee break**	
9:00 - 9:45	AI-Driven Climate Modelling	Mr. Elyakom Vadislavsky, IMS
9:45 - 10:00	**Coffee break**	
10:00 - 10:45	The Climate Limited-area Modelling Community and its contribution to EURO-CORDEX	Dr. Christian Steger, DWD
10:45 – 11:00	**Coffee break**	
11:00 - 11:30	Summary, Feedback and Goodbye	Dr. Amir Givati, IMS
	21 Dec. 2026	
15:00 – 17:00	Americas - Questions and hands-on exercises	Dr. Yoav Levi + Dr. Theodor Bughici,
	22 Dec. 2026	
5:00 - 7:00	Asia-Pacific - Questions and hands-on exercises	Dr. Yoav Levi + Dr. Theodor Bughici,

Note: All times listed are in UTC, the final time will be determined to optimize the participants' time zone.

Objectives:

a) Develop participants' ability to understand and critically evaluate climate models.
b) Introduce the fundamentals of dynamical downscaling using convection-permitting models for both weather and climate applications.
c) Present the Climate Limited-area Modelling Community and its activities.
d) Provide an overview of AI-based approaches for downscaling.
e) Provide hands-on experience in model data processing, including statistical downscaling techniques for generating climate change indices.

Outcomes:

a) Participants will gain practical knowledge on climate modeling.
b) Participants will understand the limitations and challenges faced by NMHSs in providing climate change projections.
c) Participants will understand climate change indexes for extreme events.

d) Participants will be able to generate temperature projections for their own locations.
e) Armed with knowledge about climate modelling their strength and limitations, participants will make informed decisions related to assessing local climate change.

Moodle Site

With the valued support of **WMO**, we will use the **Moodle learning platform** for this course. All presentations, questionnaires, relevant links, and assignments will be made available there.

If you do not yet have a Moodle account, please create one using the following link:

👉 https://etrp.wmo.int/