Daily programme for room HS 2

Room HS 2 | Mon, 05 Sep 2022

PSE.cc.2 | EMS2022 Opening & Welcome

Conveners: Bert Holtslag, Clemens Simmer

09:30–10:00	**EMS2022 Opening & Welcome**

PSE.cc.1 | Strategic Lectures: Connecting communities to deliver seamless products and services

Convener: Sylvain M. Joffre | Co-conveners: France-Audrey Magro, Matthieu Masbou, Karolin Eichler
Chairpersons: Roland Wengenmayr, France-Audrey Magro

	Introduction
10:00–10:10	EMS2022-724
	Added value for science and society through connecting communities at DWD
	Sarah Jones
10:10–10:20	EMS2022-702
	Transdisciplinary, interdisciplinary, and interinstitutional work as the building blocks for effective service delivery
	Celeste Saulo
10:20–10:30	EMS2022-715
	How EUMETSAT connects communities to deliver products and services seamlessly
	Phil Evans and Paul Counet
10:30–10:40	EMS2022-687
	ECMWF: a collective endeavour to serve our communities
	Florence Rabier
10:40–10:50	EMS2022-207
	How public private partnerships can enable better end user forecasts
	Isla Finney
10:50–11:00	**Executive Secretary UNFCCC**

Chairpersons: Roland Wengenmayr, France-Audrey Magro

11:30–12:00	**Panel discussion: Challenges and strategic visions for "connecting communities"**
12:00–12:30	**Discussion with audience**

ES1.6 | Open Data - data, application development, impact

Convener: Hella Riede | Co-conveners: Roope Tervo, Björn Reetz, Håvard Futsæter
Chairpersons: Hella Riede, Roope Tervo

	Oral session part 1
14:00–14:15	EMS2022-347
	Open Data from a mixed on-premise and cloud environment at the Finnish Meteorological Institute
	Mikko Visa
14:15–14:30	EMS2022-380
	ZAMG Data Hub – Open access to high value data sets
	Erika Dautz, **Irene Teubner**, Martin Auer, Alexander Beck, Fabian Pechstein, Julia Schöberl, Bernhard Stuxer, and Daniel Lang

14:30–14:45   EMS2022-141
Tiny Weather Forecast Germany - an open source weather app based on open data from the Deutscher Wetterdienst (DWD)
Pawel Dube

14:45–15:00   EMS2022-468
DWD Geoportal – A central hub for Open Data, API and communication
Björn Reetz, Hella Riede, Dirk Fuchs, Matthias Jerg, and Renate Hagedorn

15:00–15:15   EMS2022-421
Introducing BitTorrent : a scary but efficient way to disseminate archive and real-time data
Nicolas Baldeck

15:15–15:30   EMS2022-263
A modernised Data Store infrastructure for improving the access to Copernicus Climate and Atmosphere data and services.
Angel Lopez, Carlo Buontempo, Martin Suttie, Baudouin Raoult, **Edward Comyn-Platt**, and James Varndell

Oral session part 2

Coffee break

Chairpersons: Håvard Futsæter, Björn Reetz, Hella Riede

16:00–16:10   **Interduction to the EMS Technology Achievement Award (TAA) by Robert Mureau, Chair of the TAA Committee**

16:10–16:30   EMS2022-725 | EMS Technology Achievement Award
The Weather Observations Website
Ken Mylne, Hannah Male, and Simon Gilbert

16:30–16:45   EMS2022-189
Open-Data and the Citizens: gathering weather and climate data in a digital common, crowdsourcing from the community, and producing value-added tools for the ecosystem
Frederic Ameye and the Infoclimat team

16:45–17:00   EMS2022-424
GeoE3 - combining meteorological data with geospatial and statistical data
Mikko Visa

17:00–17:15   EMS2022-17
Providing AI- and ML-ready data
Roope Tervo and Mike Grant

17:15–17:30   **Discussion and wrap-up**

PSE.awards.1 | Award Presentations

Convener: Bert Holtslag

18:00–19:00   **Award Presentations**

Room HS 2 | Tue, 06 Sep 2022

OSA1.9 | Machine Learning and Computer Vision in Weather and Climate

Conveners: Peter Düben, Gordon Pipa, Bernhard Reichert, Dennis Schulze, Gert-Jan Steeneveld, Roope Tervo
Chairperson: Bernhard Reichert

Applications and Methods of Machine Learning

09:00–09:15   EMS2022-211
Machine learning operations for weather applications
Daniele Nerini, Gabriela Aznar, and Jonas Bhend

09:15–09:30   EMS2022-195
Generative machine learning methods for multivariate ensemble post-processing
Sebastian Lerch and Jieyu Chen

Precipitation Applications

09:30–09:45   EMS2022-427
Postprocessing of gridded precipitation forecasts using conditional generative adversarial networks and quantile regression
Stephan Hemri, Jonas Bhend, Christoph Spirig, Daniele Nerini, Lionel Moret, Reinhard Furrer, and Mark A. Liniger

09:45–10:00   EMS2022-467
ML Driven Imputation of Precipitation Data Collected at High Sampling Rates
Peter Lünenschloß, David Schäfer, Florian Gransee, Antje Claußnitzer, Thomas Schartner, and Jan Bumberger

10:00–10:15   EMS2022-541
Evaluating the performance of Long Short-Term Memory (LSTM) Networks for rainfall–runoff modelling in large catchments
Edgar Espitia, Fatemeh Heidari, Qing Lin, Marc Vischer, and Elena Xoplaki

10:15–10:30   EMS2022-245
An AI-based approach for bias correction of temperature and precipitation forecasts to develop an early warning system
Fatemeh Heidari, Qing Lin, Edgar Fabián Espitia Sarmiento, Muralidhar Adakudlu, Marc Vischer, and Elena Xoplaki

Coffee break

Chairperson: Roope Tervo

Nowcasting Applicatons

11:00–11:15   EMS2022-391
Precipitation Nowcasting by Deep Physics-Constrained Neural Networks
Matej Choma, Jakub Bartel, and Petr Šimánek

11:15–11:30   EMS2022-343
Towards a data-driven nowcasting of severe weather based on geostationary satellite data
Çağlar Küçük, Apostolos Giannakos, Stefan Schneider, and Alexander Jann

Applications for temperature, wind, renewable energies

11:30–11:45   EMS2022-552
Statistical downscaling of the 2m temperature with a generative adversarial network (GAN)
Michael Langguth, Bing Gong, Yan Ji, Amirpasha Mozaffari, and Martin G. Schultz

11:45–12:00   EMS2022-324
Graph neural networks for solar energy nowcasting and intra-day prediction in Central Europe
Irene Schicker and Petrina Papazek

12:00–12:15 EMS2022-327
An adapted deep convolutional RNN model for spatio-temporal prediction of wind speed extremes in the short-to-medium range for wind energy applications
Daan Scheepens, Irene Schicker, Petrina Papazek, Katerina Hlavackova-Schindler, and Claudia Plant

Clouds

12:15–12:30 EMS2022-39
Data Assimilation of visible and infrared cloud observations from pictures
Maria Reinhardt, Frederik Kurzrock, Walter Acevedo, and Roland Potthast

12:30–12:45 EMS2022-157
New cloud detection method for a stand-alone ground based microwave radiometer
Moritz Löffler, Christine Knist, Ulrich Görsdorf, Jasmin Vural, and Ulrich Löhnert

12:45–13:00 EMS2022-171
Cloud Mask Nowcasting over Germany Using Deep Learning
Mads Emil Marker Jungersen, **Thomas Lykke Rasmussen**, Andreas Holm Nielsen, and Henrik Karstoft

Lunch break

Chairperson: Dennis Schulze

Machine Learning in Numerical Weather Prediction

14:00–14:15 EMS2022-574
Assimilation of atmospheric wind vectors retrieved via Optical flow algorithm and a thermal all-sky imager
Walter Acevedo Valencia, Frederik Kurzrock, Maria Reinhardt, and Roland Potthast

14:15–14:30 EMS2022-277
Neural network-based methods for generating synthetic satellite images in the solar spectral range
Leonhard Scheck, Florian Baur, Christina Stumpf, and Christina Köpken-Watts

14:30–14:45 EMS2022-419
Building a physics-constrained, fast and stable machine learning-based radiation emulator
Guillaume Bertoli, Sebastian Schemm, Firat Ozdemir, Eniko Szekely, and Fernando Perez Cruz

14:45–15:00 EMS2022-531
A framework for comparative cluster analysis of ensemble weather prediction data
Kameswarrao Modali, Dominik Sander, Sebastian Brune, Philip Rupp, Hella Garny, Johanna Baehr, and Marc Rautenhaus

Seasonal and climate applications, urban heat

15:00–15:15 EMS2022-167
Comparison of AI Downscaling Methods on C3S Seasonal Forecasts for Early Warning System Development
Qing Lin, Fatemeh Heidari, Edgar Fabián Espitia Sarmiento, Marc Vischer, and Elena Xoplaki

15:15–15:30 EMS2022-54
Estimating the possibility of thermal stress with computer vision and neural networks based on Local Climate Zone and terrain.
Tsz Kin Lau, Yu Cheng Chen, and Tzu Ping Lin

Coffee break

Chairperson: Gert-Jan Steeneveld

16:00–16:15 EMS2022-233
Predicting Central European summer heatwaves with Machine Learning
Elizabeth Weirich Benet, Maria Pyrina, Bernat Jiménez Esteve, Ernest Fraenkel, Judah Cohen, and Daniela Domeisen

16:15–16:30   EMS2022-74
Analysis of the association between environmental features and temperature using Decision Tree and Artificial Neural Network
Shiang Yu Wang, Kuo An Hung, and Tzu Ping Lin

Other applications of Machine Learning

16:30–16:45   EMS2022-420
Daily Precipitation Downscaling Using Deep Learning Techniques: The Impact of Missing Value Imputation Methods
Hae Soo Jung, Sungmin Oh, and Seon Ki Park

16:45–17:00   EMS2022-548
Met4Airports - Prediction of weather-induced operating restrictions at German international airports by means of artificial intelligence
Christoph Knigge, Ole Kouker, Daniel Koser, Björn-Rüdiger Beckmann, Dirk Zinkhan, Hermin Beumer-Aftahi, Benedikt Müller, Felix Garcia Funk, Alexandra Melzer, Iris Breitruck, Martin Gehmayr, Matthias Beckmann, Stefan Seitz, Niklas Jost, Helen Estrella, and Johannes Knöferle

17:00–17:15   EMS2022-570
Machine learning in a probabilistic framework can improve the prediction of lightning ignited fires
Francesca Di Giuseppe

PSE.keynotes.1 | Keynote Presentation Engagement with Society

Convener: Tanja Cegnar | Co-convener: Gerald Fleming

17:30–18:00   EMS2022-723
Science Communication – experiences with societal and community outreach
Insa Thiele-Eich

Room HS 2 | Wed, 07 Sep 2022

OSA3.4 | Climate Service 1: Deriving actionable information from climate data

Convener: Andreas Fischer | Co-conveners: Martin Widmann, Barbara Früh, Ivonne Anders, Rob van Dorland, Fai Fung
Chairpersons: Martin Widmann, Andreas Fischer

Climate projections, downscaling, ensemble techniques

09:00–09:15   EMS2022-114
TRANSLATE: from climate data to climate services for Ireland
Enda O'Brien, Paul Nolan, and James Fitton

09:15–09:30   EMS2022-378
Decisions made when updating national climate projections for Norway
Anita Verpe Dyrrdal, Irene Brox Nilsen, Stephanie Mayer, Hans Olav Hygen, Andreas Dobler, and Inger Hanssen-Bauer

09:30–09:45   EMS2022-14
Reconstructing the diurnal cycle of temperature from daily climate simulations using three temporal downscaling techniques in a perfect model approach
Hiba Omrani and Paul-Antoine Michelangeli

09:45–10:00   EMS2022-392
Uni- and multivariate bias-adjustment on a 1 km grid over Norway
Andreas Dobler, Wai Kwok Wong, Ingjerd Haddeland, Deborah Lawrence, Jan Erik Haugen, and Anita Verpe Dyrrdal

10:00–10:15   EMS2022-78
Statistical downscaling in the Tropics and Mid-latitudes: a comparative assessment for generating regional information on climate change.
Alfonso Hernanz, Carlos Correa, Marta Domínguez, Esteban Rodríguez-Guisado, and Ernesto Rodríguez-Camino

10:15–10:30   EMS2022-645
Empirical-Statistical downscaling with EPISODES – status and current developments
Philip Lorenz, Theresa Schellander-Gorgas, Amelie Hoff, and Frank Kreienkamp

Coffee break

Chairpersons: Fai Fung, Barbara Früh

Sectoral climate services

11:00–11:15   EMS2022-582
Copernicus Climate Change Service (C3S) climate information for the energy sector
Chiara Cagnazzo, Carlo Buontempo, Samuel Almond, Marcus Zanacchi, Stijn Vermoote, Julien Nicolas, and Freja Vamborg

11:15–11:30   EMS2022-513
Climate factsheets for world heritage sites in Norway
Hans Olav Hygen, Irene Brox Nilsen, and Elin Dalen

11:30–11:45   EMS2022-527
Grain production and climate change in south-eastern Norway
Reidun Gangstø Skaland, Inger Hanssen-Bauer, and Hans Olav Hygen

11:45–12:00   EMS2022-32
Preliminary assessment of tourists interest for tourism-tailored climate and environmental products
Liliana Velea and Alessandro Gallo

12:00–12:15   EMS2022-498
Methodological choices influencing uncertainties andinformation loss in research on climate adaptation of buildings
Jørn Emil Gaarder, **Hans Olav Hygen**, and Tore Kvande

12:15–12:30   EMS2022-344
Climatological Heat Waves in Norway - a base for Operational Warning System
Helga Therese Tilley Tajet, Stine Sagen, Solfrid Agersten, Hans Olav Hygen, Reidun Gangstø Skaland, Cristian Lussana, Irene Brox Nilsen, and John Smits

Dissemination

12:30–12:45   EMS2022-579
Lessons in climate service development from Klimaatlas, the Danish National Climate Atlas
Mark R. Payne, Alan Sørensen, Bo Christiansen, Elin Andree, Frederik Boberg, Jian Su, Kristine S. Madsen, Marianne S. Madsen, Martin Olesen, Ole B. Christensen, Rasmus A. Pedersen, Peter Thejll, Peter L. Langen, Steffen M. Olsen, and Torben Schmith

12:45–13:00   EMS2022-583
User-tailored climate predictions – the DWD climate predictions website
Birgit Mannig, Andreas Paxian, Miriam Tivig, Klaus Pankatz, Kristina Fröhlich, Amelie Hoff, Katja Reinhardt, Katharina Isensee, Sabrina Wehring, Saskia Buchholz, Alexander Pasternack, Philip Lorenz, Frank Kreienkamp, and Barbara Früh

Lunch break

ES1.5 | Climate Service 3: National and international climate services: user engagement and governance

Convener: Carlo Buontempo | Co-conveners: Francisco J. Doblas-Reyes, Freja Vamborg

14:00–14:15   EMS2022-84
Addressing the need for a UK National Framework for Climate Services.
Louise Wilson, **Nicola Golding**, Chris Hewitt, Jason Lowe, Tyrone Dunbar, and Mark Harrison

14:15–14:30   EMS2022-38
Enhancement of quality in climate services – development of a formative evaluation scheme for co-creation processes
Elke Keup-Thiel, Sebastian Bathiany, Markus Dressel, Juliane El Zohbi, Diana Rechid, Susanne Schuck-Zöller, Mirko Suhari, and Esther Timm

14:30–14:45   EMS2022-93
Estimating the current climate mean state at regional to local scales
Simon C. Scherrer, Cees de Valk, Michael Begert, Stefanie Gubler, Sven Kotlarski, and Mischa Croci-Maspoli

14:45–15:00   EMS2022-193
The need for global hydro-climatological indicators
Rasmus E. Benestad, Cristian Lussana, Julia Lutz, Andreas Dobler, Oskar A. Landgren, Jan Erik Haugen, Abdelkader Mezghani, Barbara Casati, and Kajsa M. Parding

15:00–15:15   EMS2022-236
Co-creation of sub-seasonal prediction service for tyre companies in Finland
Andrea Vajda, Otto Hyvärinen, Mika Rantanen, Andreas Tack, and Markus Mellin

15:15–15:30   EMS2022-291
The RCC Network – climate services for WMO Members in Europe
Peter Bissolli, **Stefan Rösner**, Maarit Roebeling, Maya Körber, and Andrea Kreis

Coffee break

16:00–16:15   EMS2022-525
Increasing the resilience of the German transport system to climate change and extreme weather events
Stephanie Hänsel, Lara Klippel, Christoph Brendel, Enno Nilson, Nils Schade, Lennnart Meine, Carina Herrmann, and Ingo Hache

16:15–16:30   EMS2022-536
Seaming together a patchwork of knowledges: toward co-producing social and behaviourally informed climate services
Micha Werner, Ilyas Masih, Rebecca Emerton, Ilias Pechlivanidis, Marije Schaafsma, Lluís Pesquer, Giuliano Di Baldassarre, Marc van den Homberg, Paolo Mazzoli, Megi Gamtkitsulashvili, Lucia De Stefano, Benedikt Gräler, Györgyi Bela, and Apostolis Tzimas

16:30–16:45   EMS2022-592
Climate services landscape in Eastern Africa: A survey of how, when and by whom is climate information used
Neha Mittal, Marta Bruno Soares, Mohammed Abdullahi Hassan, Oliver Kipkogei, Marta Baraibar, and Calistus Wachana

16:45–17:00   EMS2022-614
Snow depth, relative humidity, and total cloud cover for Poland based on downscaled EuroCORDEX ensemble.
Maciej Jefimow, Joanna Strużewska, Maria Kłeczek, Anahita Sattari, and Aleksander Norowski

17:00–17:15   EMS2022-667
Co-design of sectoral climate services based on seasonal prediction information in theMediterranean
Esteban Rodríguez-Guisado, Ernesto Rodríguez-Camino, Eroteida Sánchez-García, Valentina Bacciu, Marta Chiarle, Jose Costa-Saura, Maria Nieves Garrido, Llorenç Lledo, Beatriz Navascués, Roberta Paranunzio, Silvia Terzago, Valentina Mereu, Guido Nigrelli, Monia Santini, Albert Soret, and Jost von Hardenberg

PSE.keynotes.3 | Keynote Presentation Understanding Weather & Climate Processes

Convener: Frank Beyrich | Co-convener: Barbara Chimani
Chairpersons: Frank Beyrich, Barbara Chimani

17:30–18:00   EMS2022-297
FESSTVaL: connecting dense surface networks, supersites and citizen to catch atmospheric variability at kilo- and subkilo-meter scales
Cathy Hohenegger

Room HS 2 | Thu, 08 Sep 2022

ES2.1 | Science Communication and media

Conveners: Gerald Fleming, Tanja Cegnar
Chairperson: Tanja Cegnar

09:00–09:15   EMS2022-35
Improving Communication in the Meteorology Community: The American Meteorological Society's Commission on the Weather, Water, and Climate Enterprise
Pamela Emch

09:15–09:30   **Podcast De Weerman - Outreach & Communication Award**

09:30–09:45   EMS2022-36
How Will Extreme Weather Events Change due to Climate Change?
David Schultz

09:45–10:00   EMS2022-132
Relevant and robust climate information and climate change adaptation
Rasmus E. Benestad

10:00–10:15   **Extreme Weather Congress - Outreach & Communication Award**

10:15–10:30   EMS2022-256
On the effectiveness of climate change communication at the Royal Meteorological Institute of Belgium
Rozemien De Troch, Emilie Delhaye, Alex Dewalque, and Marc Christiaens

Coffee break

Chairperson: Gerald Fleming

11:00–11:15   EMS2022-131
Weather and War
Stanislava Tsalova

11:15–11:30   EMS2022-258
Generating weather symbol data in IMPROVER
Stephen Moseley and Ben Ayliffe

11:30–11:45   EMS2022-594
Public responses to heat health alerts in the United Kingdom
Andrea Taylor, Barbara Summers, Jenna Barnard, and Samuel Domingos

11:45–12:00   EMS2022-146
Communicating the uncertainties of internal climate variability to the general public
Magdalena Mittermeier, Andrea Böhnisch, David Gampe, and Ralf Ludwig

12:00–12:15   EMS2022-348
Non-persuasive communication as a strategy to deliver climate information
David Hoffmann, **David Holmes**, and Ella Healy

12:15–12:30   EMS2022-545
Finnish Meteorological Institute's Climate Bulletin Research Letters
Juha A. Karhu, Hada Ajosenpää, Anna Luomaranta, Tiina Ervasti, and Hilppa Gregow

12:30–12:45	EMS2022-145
	Keeping momentum working remotely
	Tanja Cegnar

12:45–12:50	**Navigating overload and oblivion in weather warning communication - some insights from Norway**

12:50–12:55	**Spiral Strip Graphic**

12:55–13:00	**Future of Media Awards**

Lunch break

UP1.2 | Atmospheric boundary-layer processes, turbulence and land-atmosphere interactions

Convener: Gert-Jan Steeneveld | Co-conveners: Carlos Román-Cascón, Nikki Vercauteren, Bert Holtslag
Chairpersons: Gert-Jan Steeneveld, Carlos Román-Cascón, Bert Holtslag

Land-atmosphere interactions from models and observations I

14:00–14:30	EMS2022-441
	What controls the strength of convective circulations in real-case Large-Eddy Simulations during FESSTVaL?
	Mirjana Sakradzija, Noviana Dewani, Frank Beyrich, Daniel Klocke, Ivan Bastak Duran, Juerg Schmidli, and Linda Schlemmer

14:30–14:45	EMS2022-638
	Large Eddy Simulation of Surface Heterogeneity Induced Secondary Circulation with Background Winds
	Lijie Zhang, Stefan Poll, and Stefan Kollet

14:45–15:00	EMS2022-630
	Turbulence Structure and Mixing in Strongly Stable Boundary-Layer Flows over Thermally Heterogeneous Surfaces
	Dmitrii Mironov and Peter Sullivan

15:00–15:15	EMS2022-75
	Role of changing vegetation properties on the variability of Indian summer monsoon rainfall
	Sachin Budakoti and Subimal Ghosh

15:15–15:30	EMS2022-238
	Simulating cold pools with ICON during the FESSTVaL period
	Maike Ahlgrimm, Bastian Kirsch, and Mirjana Sakradzija

Coffee break

Chairpersons: Gert-Jan Steeneveld, Carlos Román-Cascón, Bert Holtslag

Land-atmosphere interactions from models and observations II

16:00–16:15	EMS2022-453
	Introducing a daily updated Leaf Area Index in a mesoscale Numerical Weather Prediction model
	Balázs Szintai, Helga Tóth, and László Kullmann

16:15–16:30	EMS2022-499
	Semi operational real-data large eddy simulations for agricultural applications
	Stefan Poll, Lijie Zhang, and Stefan Kollet

16:30–16:45	EMS2022-218
	Resolving micro to mesoscale interactions between urban surface and a sea-breeze circulation using high resolution large-eddy simulations
	Sasu Karttunen, Ewan O'Connor, Antti Hellsten, Carl Fortelius, and Leena Järvi

16:45–17:00   EMS2022-649
                 Spatial structures in atmospheric boundary-layer flow – wind tunnel modeling
                 Klara Jurcakova and Radka Kellnerova

17:00–17:15   EMS2022-274
                 Simulating the effects of regional forest cover on mid-latitude boundary-layer clouds
                 Gaëtan Noual, Yves Brunet, Patrick Le Moigne, and Christine Lac

PSE.keynotes.2 | Keynote Presentation Operational Systems and Applications

17:30–18:00   EMS2022-464
                 The Copernicus climate change service: current status and future perspectives.
                 Carlo Buontempo and the C3S leadership team

Room HS 2 | Fri, 09 Sep 2022

UP1.2 | Atmospheric boundary-layer processes, turbulence and land-atmosphere interactions

Convener: Gert-Jan Steeneveld | Co-conveners: Carlos Román-Cascón, Nikki Vercauteren, Bert Holtslag
Chairpersons: Gert-Jan Steeneveld, Carlos Román-Cascón, Bert Holtslag

PBL studies using OBSERVATIONAL data

09:00–09:15   EMS2022-306
Doppler Lidar Wind Profiling in Fairbanks (Interior of Alaska) During the 2022 ALPACA Field Campaign
Elsa Dieudonné, Natalie Brett, Gilberto J. Fochesatto, Jean-Christophe Raut, Barbara D'Anna, Brice Temime-Roussel, Julia Schmale, Roman Pohorsky, Andrea Baccarini, Brice Barret, Stefano Decesari, Antonio Donateo, Gianluca Pappaccogli, Federico Scoto, Maurizio Busetto, Hervé Delbarre, Slimane Bekki, François Ravetta, and Kathy S. Law

09:15–09:30   EMS2022-615
Beyond Monin-Obukhov Similarity Theory and the Hockey-Stick Transition
Gabin Urbancic

09:30–09:45   EMS2022-569
A long-term climatology of boundary-layer height and stability at Hyytiälä in southern Finland.
Victoria Sinclair, Jenna Ritvanen, Gabin Urbancic, Yurii Batrak, Irina Statnaia, Dmitri Moisseev, and Mona Kurpaa

09:45–10:00   EMS2022-142
Study of a unique fog event in Israel during January 2021: from measured microphysics, ground-remote sensing and satellite imagery to mesoscale forecasts and synoptic analysis
Dorita Rostkier-Edelstein, Eyal Agassi, Pavel Kunin, Tamir Tzadok, Rong-Shyang Sheu, Adam Pitrkowski, and Ayala Ronen

10:00–10:15   EMS2022-92
A Case Study on the Soil Temperature Cooling Mechanism by Convective Cold Pools using Observation Network Data
Jaemyeong Mango Seo, Cathy Hohenegger, Nima Shokri, and Hannes Nevermann

10:15–10:30   EMS2022-194
Observational analysis of the wind speed and turbulence relationship with NO2 concentration
Carlos Román-Cascón, Carlos Yagüe, Pablo Ortiz, Mariano Sastre, Gregorio Maqueda, Encarna Serrano, Begoña Artiñano, Francisco J. Gómez-Moreno, Elias Díaz-Ramiro, Elisabeth Alonso, Javier Fernández, Rafael Borge, Adolfo Narros, Jose M. Cordero, Ana M. García, and Andrés Núñez

Coffee break

Chairpersons: Gert-Jan Steeneveld, Carlos Román-Cascón, Bert Holtslag

11:00–11:15   EMS2022-116
Recurrence quantification analysis of high-resolution cloud temperature data from EUREC4A
Stanislaw Krol and Szymon Malinowski

11:15–11:30   EMS2022-177
Observations of turbulence properties in coupled and decoupled stratocumulus-topped marine boundary layers
Jakub L. Nowak, Holger Siebert, Kai-Erik Szodry, and Szymon P. Malinowski

11:30–11:45   EMS2022-405
Investigation of local carbon fluxes from lakes to the atmosphere from eddy covariance observations and the erroneous contribution from non-local processes
Leonie Esters, Anna Rutgersson, Erik Nilsson, and Erik Shalée

Models and schemes: development and evaluation

11:45–12:00   EMS2022-27
Surface air temperature bias in meteorological models due to misrepresentation of the atmospheric boundary layer thickness
Igor Esau and Marvin Kähnert

12:00–12:15   EMS2022-454
Sensitivity of the LES model PALM in the urban environment: a case study in Prague
Michal Belda, Resler Jaroslav, Geletič Jan, Krč Pavel, Maronga Bjorn, Suhring Matthias, Kurppa Mona, and Fuka Vladimír

12:15–12:30   EMS2022-159
Direct Numerical Simulation of the Aerodynamically Rough Atmospheric Boundary Layer
Jonathan Kostelecky and Cedrick Ansorge

12:30–12:45   EMS2022-87
Testing the Nonlocal Three-dimensional Transilient Turbulence (NLT3D) scheme in the ICON model
Volker Küll and Andreas Bott

12:45–13:00   EMS2022-385
An Evaluation of Algebraic Turbulence Length Scale Formulations
Stephanie Reilly, Ivan Bastak Duran, Anurose Theethai-Jacob, and Juerg Schmidli

Lunch break

Chairpersons: Gert-Jan Steeneveld, Carlos Román-Cascón, Bert Holtslag

14:00–14:15   EMS2022-566
Unified parameterization of turbulence and boundary layer clouds using the updated two-energies turbulence scheme
Juerg Schmidli, Ivan Bašták Ďurán, and Mirjana Sakradzija

14:15–14:30   EMS2022-617
Stochastic modeling of transient Ekman flow at arbitrary Reynolds number driven by horizontal bottom wall oscillation
Marten Klein and Heiko Schmidt

14:30–14:45   EMS2022-693
Modelling the dispersion of a passive tracer from a continuous poit source in a steady thermally-driven slope wind
Sofia Farina, **Dino Zardi**, and Andrea Bisignano

14:45–15:00   EMS2022-459
Shear-Convection flux decomposition in atmospheric boundary layer using neural network
Sara Shamekh and Pierre Gentine

15:00–15:15   EMS2022-595
A station-based evaluation of south foehn forecasting with COSMO-1
Yue Tian, Juerg Schmidli, and Julian Quimbayo-Duarte

15:15–15:30   EMS2022-34
Penetrative convection in Nocturnal ABL: Numerical Simulations
Kr Sreenivas, Shaurya Kaushal, and Dhiraj Kumar Singh

PSE.social.4 | Closing reception & Announcement winner of Innovative poster presentation award

15:45–16:15   **Closing reception & Announcement winner of Innovative poster presentation award**