Program *(Times are given in CEST)*

Tuesday 17 September 2024

Tue, 11:00-13:00	Registration
Tue, 13:00	Welcome
	Tobias Fuchs, Head of Climate and Environment, DWD
	Astrid Eichhorn-Müller, Organizator of PMC24, DWD
Tue, 13:20-14:00	PMC24 Key Note
	Siegfried Raasch, LUH

	SESSION 1:	URBAN CASE STUDIES
		Chair: Astrid Eichhorn-Müller, Jannis Brassat
Tue, 14:00	Pierre Monteyne *Leibniz University Hannover*	Addressing the Overheating in limited-domain urban simulations with PALM
Tue, 14:20	Daiane Brondani *CNR - ISAC*	Simulating Heatwave in Urban Environments: A Case Study of Villa Ada, Rome, during October 2023
Tue, 14:40	Patricia Glocke *KIT*	Modelling Impacts of Subsurface Thermal Anomalies on Potential Air Temperatures in Berlin
Tue, 15:00-15:30	*coffee break*	
Tue, 15:30	Maja Zuvela-Aloise *GeoSphere Austria*	Evaluation of city-scale PALM model simulations for Vienna, Austria using operational and crowdsourced data
Tue, 15:50	Nooshin Nowzamani *Ruhr-University Bochum*	Supporting location determination for a meteorological monitoring network in the city of Linz (Austria)
Tue, 16:10	Julian Anders *Leibniz University Hannover*	Microscale Simulation of Local Climate Zones -- A QGIS-Based Set-up Wizard for Customized Cities and Adaptation Studies with PALM
Tue, 16:30	Martin Schneider *AIT Austrian Institute of Technology GmbH*	Supporting location determination for a meteorological monitoring network in the city of Linz (Austria)
Tue, 16:50-17:30	discussion	

Wednesday 18 September 2024

	SESSION 2:	DISTURBANCES and DISPERSION *Chair: Tobias Gronemeier*
Wed, 9:00	Dan Li *Boston University*	Characterizing Urban Flow Disturbances for Safe Operations of Urban Air Mobility
Wed, 9:20	Giovanna Motisi *Leibniz University Hannover*	Large-eddy simulation of vehicle-induced turbulence and pollutant dispersion in urban street canyons - Effects of thermodynamics and wind conditions
Wed, 9:40	~~Robert Wegener~~	~~Urban Ozone Production Simulated with PALM-4U at High Spatial Resolution~~ → **postponed to Friday**
Wed, 09:40	Tereza Pikousová *Czech Hydromet. Institue*	Retrieval of Annual Air Quality Statistics from a Limited Number of LES Model Simulations
Wed, 10:00	~~Olanrewaju O. Soneye-Arogundande~~ *~~Houston University~~*	~~Modeling the Dispersion of Natural Gas Leaks from Damaged Transmission Pipelines Using PALM~~
Wed, 10:00-10:45	*coffee break*	
Wed, 10:45	Katrin Gehrke *Pecanode GmbH*	Dispersion of ship exhaust plumes and current developments in the moving emissions module
Wed, 11:05	Victor Bourgin *Paris Saclay University, France*	Implementation of a particle resuspension model in PALM
Wed, 11:25	Sebastian Giersch *EBP Deutschland GmbH*	Unveiling Dust Devil Particle Transport: A Large-Eddy Simulation Study
Wed, 11:45-12:30	discussion	
Wed, 12:30-14:00	*group photo, lunch break*	

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Wednesday 18 September 2024

	SESSION 3:	**DYNAMICALLY DRIVEN** *Chair: Julian Anders*
Wed, 14:00	Tony Christian Landi *CNR - ISAC*	Intercomparison of PALM-4U simulations performed by using MOLOCH and WRF meteorological drivers
Wed 14:20	~~Jiachen Lu~~ *University of New South Wales* → *cancelled*	~~UrbanTALES: A comprehensive dataset of Urban Turbulent Airflow using systematic Large Eddy Simulations~~
Wed, 14:20	Sonja Steinbrück *ForWind, IWES*	Improvement of the PALM-FAST coupling for heterogeneous wind fields
Wed, 14:40-15:10	*coffee break*	
	SESSION 4:	**MODEL DEVELOPMENT** *Chair: Pierre Monteyne*
Wed, 15:10	Sasu Karttunen *University of Helsinki*	PALM-SLUrb: a single-layer urban surface model for micro to mesoscale atmospheric boundary layer studies
Wed, 15:30	Mohamed Hefny Salim *TU Berlin*	3-D Radiative Transfer in Building-Resolving Large-Eddy Simulations: Integrating the TenStream Solver with PALM Model System
Wed, 15:50	Pavel Krč *Czech Academy of Sciences*	Slanted surfaces: implementation, input data processing and testing
Wed, 16:10	Johannes Schwenkel *Leibniz University Hannover*	Simulating clouds with PALM: Current status, recent developments and perspectives
Wed, 16:30-17:00	discussion	

Wed, 17:00-18:30	**PALM developer meeting** → Gartensaal, DWD

Wed, 19:00	**conference dinner** → Restaurant LEONARDO Offenbach, Frankfurter Str. 39

Thursday 19 September 2024

	SESSION 5:	VEGETATION *Chair: Giovanna Motisi*
Thu, 9:00	Luca Mortarini *Università degli Studi di Milano*	Simulating the Amazon Forest Atmospheric Flow during an El Niño episode
Thu, 9:20	Joshua Brook-Lawson *University of Bath*	Simulating the Cooling Potential of Tilia Trees in Berlin Using PALM-LES: The Impact of Tree Age and Density During a Heatwave
Thu, 9:40	Ronald Queck *TU Dresden*	PALM and trees in different resolutions and their effect on thermal comfort
Thu, 10:00-10:15	discussion	
Thu, 10:15-10:45	*coffee break*	

	SESSION 6:	TURBULENT FLOWS *Chair: Johannes Schwenkel*
Thu, 10:45	Lukas Vollmer *Fraunhofer IWES*	Investigations into the flow in and around offshore wind farms
Thu, 11:05	Oliver Maas *ENERCON*	Stratified flow over complex terrain and its effects on extreme wind conditions at wind turbines
Thu, 11:25	Renuka Shastri *Instit. of Geography, Switzerland*	Numerical investigation of high impact foehn storm in February 1925 using PALM
Thu, 11:45	Igor Esau *UiT - the Arctic University of Norway*	Study of the Monin-Obukhov Similarity Theory (MOST) with PALM
Thu, 12:05	Benjamin Körner *University of Hohenheim*	Parametrizing turbulent fluxes by extending Monin Obukhov Similarity Theory with an Artificial Neural Network
Thu, 12:25	Matthias Mauder *TU Dresden*	The contribution of dispersive fluxes to the energy-balance closure problem
Thu, 12:45-13:00	discussion	
Thu, 13:00-14:30	*lunch break*	
Thu, 14:30-18:00	**Symposium in Honor of Siegfried Raasch**	

Friday 20 September 2024

	SESSION 7:	PALM TOOLS *Chair: Tobias Gronemeier*
Fri, 9:00	Astrid Eichhorn-Müller *DWD*	promet: a new pre-processor to genereate dynamic drivers
Fri, 9:15	Pavel Krč *Czech Academy of Sciences*	A complete toolchain for preparing inputs for real-case PALM simulations
Fri, 9:30	Sebastian Schubert *TU Berlin*	Tools to generate the static driver – A comparison
Fri, 9:50	Matthias Winkler *Fraunhofer-IBP*	Advancements in PALM-4U GUI: New Features and Practical Application
Fri, 10:10	Sebastian Stadler *Fraunhofer-IBP*	SanDy-PALM: a new open-source repository to create static and dynamic drivers for the PALM model system
Fri, 10:30-11:00	*coffee break*	
Fri, 11:00	Alexander Radi *ENERCON*	Enercon's pre-processor for complex terrain
Fri, 11:20	Joshua Brook-Lawson *University of Bath*	Validating PALM's Canopy Generator Using LiDAR-Derived Leaf Area Density Profiles
Fri, 11:40	Robert Wegener *FZ Jülich GmbH*	Urban Ozone Production Simulated with PALM-4U at High Spatial Resolution

Fri, 12:00-13:00	**PMC24 Wrap Up, Closing**
Fri, 13:00-14:00	*lunch break*
Fri, 14:00-16:00	**Working Group Session on PALM Tools** ➔ Gartensaal, DWD