



Book of Abstract

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Programme

44. Jahrestreffen des AK Klima

October 22. – 24. 2026, Kassel



UNI KASSEL
VERSITÄT

ARCHITEKTUR
STADTPLANUNG
LANDSCHAFTSPLANUNG

Thursday, 22.10.2026

Welcome

12:00	Welcome Reception
13:00	Opening Remarks, Britta Jänicke

Session 1: Urban Climate Observations and Processes

Chair: Sascha Henninger

13:15	Vanessa Reinhart; Van de vrecken, Ella; Fedele, Giusy; Kittner, Jonas; Bechtel, Benjamin	Assessing the added value of Netatmo Data for Urban Climate Monitoring across European Cities
13:45	Celine Zangerl; Paeth, Heiko; Cantat, Olivier	Influence of Local Breezes on Urban Heat Island in Caen, France
14:15	Robin Borger; Leuchner, Michael	Assessing small-scale cooling effects of urban vegetation: Evaluating thermal inertia of mobile microclimate sensors
14:45	Coffee Break	

Session 2: Urban Climate Modelling

Chair: Shakir Ahmed

15:15	Niklas Stuhmann; Sülzer, Yannik; Marschner, Bernd; Stumpe, Britta	Tageszeitliche Dynamik der Kühlwirkung urbaner Grünflächen: Eine PALM-4U-Stadtklimasimulation des Berliner Tiergartens
15:45	Friederike Schäfer Roy, Etienne; Paeth, Heiko	SMART-TWIN: Modelling different spatial planning and climate scenarios of Würzburg using the urban climate model PALM-4U
16:15	Nisha Patel; Mackey, Lester; Zhong, Jian; Lu, Yanzhi; Jänicke, Britta et al.	Towards Fast Urban Climate Assessment using Data-Efficient Machine Learning Frameworks: A case study using ADMS-Urban at Birmingham, UK
16:45	Marius Sorgenfrei; Mölg, Thomas; Appelhans, Tim	Assessment of Urban Heat Stress on the TechFak Campus in Erlangen Using Field Measurements and Microclimate Modeling

Postersession 1

17:15	Postersession 1
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Evening Programme

18:45	Hotel Check-In (the rooms are available from 15:00)
19:00	Dinner
20:30	Meet & Mingle –Bingo

Friday, 23.10.2026

Session 3: Cloud Dynamics

Chair: Marco Otto

09:00	Olimpia Bruno; Dupuis, Sonia; Andersen, Hendrik; Cermak, Jan	The relationship between land surface temperature and ice fog and low clouds in the Arctic
09:30	Bhawuk Verma; Wallentin, Gabriella; Barthlott, Christian; Hoose, Corinna	Does secondary ice production modulate Mediterranean deep convective clouds across different aerosol regimes and terrain forcing?
10:00	Eva Pauli; Andersen, Hendrik; Nowack, Peer; Cermak, Jan	How does the land surface shape cloud occurrence? A neural network approach
10:30	Sheetabh Gaurav; Thies, Boris, Egli, Sebastian, Bendix, Jörg	A 30-year fog climatology across Europe based on harmonized data records from two Meteosat generations

Postersession (with Coffee)

11:00	Postersession 2
12:00	Lunch

Session 4: Climate Change Impacts

Chair: Ben Marzeion

13:00	Somayeh Ahmadpour; Trachte, Katja	Evapotranspiration-Driven Water Stress and Compound Drought-Heatwave Risks under Climate Warming in the Temperate Eastern German Lowlands
13:30	Napoleon Kabama; Tshimanga, Raphael M; Knight, Jasper, Bangelesa, Freddy; Rai, Praveen et al.	Integrated Assessment of Climate and Land-Use Change Impacts on Hydropower Generation in the Congo Basin under Future Scenarios.
14:00	Mostafa Sayeed; Trachte, Katja	Projected changes in energy, water and carbon dioxide dynamics under future climate change in an agroecosystem in eastern Germany
14:30	Coffee Break	

Coordination Meeting

15:00	Information for the Evening Programme
15:15	Coordination Meeting

Conference Diner

17:15	Evening at the UNESCO World Heritage Site Bergpark Wilhelmshöhe
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Saturday, 24.10.2026

Session 5: Climate and Health

Chair: Vanessa Reinhart

09:00	Clarissa Likidis Gäbel, Paul; Kaspar-Ott, Irena; Hertig, Elke	TOUCH – Temperatur, Ozon und urbane Einflussfaktoren auf die Gesundheit
09:30	Irena Kaspar-Ott; Sasse, Katharina; Álvarez, Fabio; Gäbel, Paul; Herrmann, Alina et al.	Atmosphärische Expositionsmuster und klimasensitive Gesundheitsversorgung im urbanen und ländlichen Bayern
10:00	Susanne A. Benz; Chawla, Jayati, Keller, Philipp	Comparing land surface temperature and air temperature for assessing socio-demographic inequalities in urban heat exposure: evidence from Germany
10:30	Coffee Break	

Session 6: Climate and Vegetation

Chair: Eva Pauli

11:00	Armin Hofmann Keupp, Luzia; Paeth, Heiko	Evaluation of past and future simulated Mildew in Bavarian vineyards using agricultural weather stations and regional climate models
11:30	Jeremias Gebhardt; Buermann, Wolfgang	How Data and Methodological Choices Affect Satellite- Based Estimates of Boreal Vegetation Resilience
12:00	Christopher Jung; Stahl, Kerstin; Schindler, Dirk	Raumzeitlich hochaufgelöste meteorologische Daten für Umweltfragen

Updates and Ending

12:30	Closing & Farewell	
13:00	Excursions (by prior registration)	
–	A: Bergpark Wilhelmshöhe	
15:00	B: Auf den Spuren der Dokumenta	

Posters

Nr.	Authors, Presenter	Title
1	Ahmed, Shakir; Gaußmann, Max-Jannick; Jänicke, Britta	A Comparative Analysis of Air Temperature and Mean Radiant Temperature Variability between Kassel and Trier based on observations from multiple weather stations
2	Alferink, Alice; Ganz, Henri; Vahdatinia, Farshad; Foken, Thomas; Niklas, Daniela; Ackermann, Leonie	Climate Walking: An App-Supported Citizen Science Approach
3	Auer, Isabel; Beck, Christoph; Traidl-Hoffmann, Claudia; Plaza, Maria P.	Identifizierung mikroskaliger Umweltrisikogebiete: Analyse multipler Umweltstressoren zur Verbesserung der städtischen Gesundheit
4	Bart, Frederik; Otto, Marco	Climatology of Urban Precipitation Effects in Berlin-Brandenburg
5	Beier, Christian; Trachte, Katja	Assessment of future changes to the Universal Thermal Climate Index (UTCI) under +2 and +3K global warming levels using ICON-CLM
6	Ge Cheng, Julia Nickel-Kuhn, Andreas Rutz, Lutz Katzschner, K. Heinke Schlünzen	Introduction to the VDI Standards on Urban Climate
7	Fenner, Daniel; Meier, Fred; Holtmann, Achim; Otto, Marco; Scherer, Dieter	Unprecedented warming over the past 30 years in Berlin, Germany, unaffected by urban effects
8	Delgado-Maldonado, Byron; Schmidt, Benjamin; Scherer, Dieter; Bendix, Jörg; Turini, Nazli	Spatial Correlations between SST Patterns and Rainfall in the Galápagos Archipelago
9	Gaurav, Sheetabh; Grigusova, Paulina; Schütz, Michaela; Bendix, Jörg	Integrating downscaled weather and air quality forecasts for predicting environmental related hospitalization risks
10	Gaußmann, Max-Jannick; Hilden, Frederik; Kulhavy, Jonas; Schmidt, Luigina, Francke, Angela, Jänicke, Britta	Physiologische Reaktion auf thermischen Diskomfort im urbanen Rad- und Fußverkehr
11	Gentsch, Thomas; Otto, Marco; Fenner, Daniel	A low-cost automated chamber for distributed soil CO ₂ efflux monitoring in heterogeneous urban landscapes
12	Grau, Leonie; Leitl, Bernd; Teichmann, Claas	Transport of heat at the neighbourhood scale: preliminary insights from PALM simulations in an urban environment
13	Grigusova, Paulina; Windhorst, David; Trachte, Katja; Bendix, Jörg	Ecuadorian Latent Heat Flux Projections through 2100
14	Haupt, Moritz; Poschlod, Benjamin; Huang-Lachmann, Jo-Ting; Linha, Amelie; Teichmann, Claas; Sillmann, Jana	A climate-model-informed framework for stress-testing urban critical infrastructure under extreme heat scenarios
15	Hertig, Elke; Anthonj, Carmen; Fahlbusch, Fabian; Hasan, Alkomiet; Keck, Markus; Kunz, Miriam; Lamy, Evelyn	GROW – Stärkung der Gesundheits-Resilienz junger Menschen in Städten in Zeiten von Klima- und Umweltveränderungen

15	Kittner, Jonas; Holtmann, Achim; Looschelders, Dana; Fenner, Daniel; Bechtel, Benjamin	The ceilometer-toolbox: streamlining state-of-the-art tools for seamless end-to-end processing and data management of LiDAR-ceilometer data
16	Lehmann, Angelia; Sismanidis, Panagiotis; Bechtel, Benjamin	Elevation-dependent changes in the annual land surface temperature cycle across Arctic mountain ranges (2000–2020)
18	Mähner, Selina; Wolf, Luise; Bechtel, Benjamin; Rowell Hagemann	Nighttime cooling conditions in Dortmund: Development of an empirical potential model based on local site factors and comparison with KLAM_21
19	Mähner, Selina; Wawrzyniak, Nicolas; Grimm, Nils; Maurer, Swantje; Kittner, Jonas; Wolf, et al.	Spatiotemporal characteristics of the June 2026 heat wave in Dortmund and Bochum in a long-term context
20	Meier, Fred, Fenner, Daniel; Holtmann, Achim; Otto, Marco; Scherer, Dieter	The Urban Climate Observatory (UCO) Berlin for integrative research on atmospheric processes in cities
21	Müller, Pierre; Henninger, Sascha; Stopp, Benjamin	Using digital and AI-based tools to assess risks and potentials in urban climate-related issues
22	Philipps, Johanna; Schröer, Katharina	Compound risk from extreme convective events and drought
23	Rai, Praveen, Maharana, Pyarimohan; Pietikäinen, Joni- Pekka; Paeth, Heiko	Performance of a modernized RCM in capturing heatwaves and their impact on human discomfort over India
24	Remetter, Pascal; Leist, Leander; Hemp, Andreas; Bendix, Jörg	Thermal Patterns and Their Interactions with Land Use and Land Cover across Mt. Kilimanjaro's Altitudinal Gradient: Insights from a High-Resolution Multimodal Airborne Campaign
25	Richter, Erik	Reconstructing Urban Surface Temperatures: A Deep Learning Approach to Bridging Temporal Gaps in High-Resolution LST Data
26	Roy, Etienne; Schäfer, Friederike; Paeth, Heiko	SMART-TWIN: Integrating PALM-4U into a geospatial digital twin for urban climate planning
27	Rupp, Saskia; Leichtle, Tobias; Hiete, Michael; Beck, Christoph	Decoding Urban Heat Risk – Towards Multi-Scale Urban Heat Risk Typologies for Climate Adaptation
28	Sander, Leon; Matzarakis, Andreas; Christen, Andreas	Weltweite Globalstrahlung: Harmonisierte Kennzahlen aus qualitätskontrollierten Messzeitreihen
29	Schmidt, Benjamin; Scherer, Dieter; Trachte, Katja	GArua – From synoptic forcing to boundary layer response: cross-scale mechanisms of cloud and precipitation in a changing climate
30	Simon, Jonathan; Stocker, Max; Mahesh, Bhargavi; Brandl Samuel; Falkenrodt, et al.	Mobile microclimate and human physiological responses across urban forest structures
31	Wagner, Oakley; Bouwer, Laurens; Rechid, Diana; Conrad, Olaf; Böhner, Jürgen	Bridging the resolution gap: From convection-permitting climate models to high-resolution hydrological models using Random Forest
32	Wolf, Luise; Sismanidis, Panagiotis; Bechtel, Benjamin; Middel, Ariane	Evaluating Dortmund's SOLWEIG-based thermal comfort now-casting service



Imprint

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