Tuesday, 17 June 2025

25th Symposium on Boundary Layers and Turbulence

	500 Room	Londra Room	Madrid Room	
	Opening Session			
8:30	1. Opening Session			8:30
	Land-Atmosphere Interaction Studies	Parameterization of Boundary Layers in Weather and Climate Models I	Pollution and dispersion in the ABL	
9:00	**2A.1** Modelling the Atmospheric Boundary Layer Response to Enhanced Sea Water Evaporation by Novel Weather Modification Technologies *Sarah N. Warnau* **2A.2** The Land-Atmosphere Feedback Initiative (LAFI): Research Objectives, Methodologies, and First Results *Volker G. Wulfmeye* **2A.3** Use of Profiler Data in Validating an All-Season Outage Prediction Model *Jeff Michael Freedman* **2A.**4 From Characterizing Atmospheric Turbulence to Understanding the Interplay between Turbulent Fluxes and Surface Thermodynamics in a Tropical Humid region of West Africa *Ossénatou Mamadou*	**2B.1** Evaluating the Framework of Atmospheric Boundary Layer Convection Mass Flux Schemes Using Doppler LIDAR Aerosol Measurements and Simulations from the Weather, Research, and Forecasting Tool *Francis Turney* **2B.2** Investigating Multiscale Drivers of Sundowner Events with Coupled Meso- to Micro-Scale Simulations *Paola Cripp* a **2B.3** Getting ET Right: Diagnosing the Role of Atmospheric Conditions and Stomata Marie-Claire ten Veldhuis 2B.4 Towards Better Aviation Turbulence Forecasts: Evaluating Planetary Boundary Layer Schemes for Direct Eddy Dissipation Rate Prediction *Mengjuan Liu*	**2C.1** Advancing Urban Street Canyon Dispersion Modeling: A Large-Eddy Simulation Study on Vehicle-Induced Turbulence *Giovanna Motisi* **2C.2** Impacts of the Complex Roof Geometry of Roughness Obstacles on Turbulence and Dispersion in the Urban-Like Boundary Layer *Tetsuya Takemi, PhD* 2C.3 Evaluating Numerical Methods for Particle Dispersion and Risk Exposure Assessment over Complex Terrain: a Case Study at CERN *Joan Rico-Orero* **2C.4** Plume Dispersion, Mixing and Chemistry Simulation Using the Lagrangian Volumetric Particle Approach with a Realistic Atmospheric Chemical Kinetics Mechanisms (Invited Presentation) *Massimo Cassiani*	9:00
10:00	**AM Coffee Break**			10:00
	Award Presentations and Talks			
10:45	**3.1:** Investigations of Coupled Atmospheric and Oceanic Boundary Layers: Large eddy simulations *Peter Sullivan* **3.2:** A micrometeorological perspective into wildland fire behavior *Tirtha Banerjee*			10:45
12:15	**Lunch Break**			12:15
	General boundary layer theory I	Stable and polar boundary layers I	Flow and turbulence in and over vegetated canopies I	
1:45	**4A.1:** Higher-Order Mean Velocity Profile in the Convective Atmospheric Boundary Layer: Beyond the Monin-Obukhov Similarity Function *Chenning Tong* **4A.2:** Relaxed eddy accumulation outperforms Monin-Obukhov flux models under non-ideal conditions *Einara Zahn* **4A.3:** On the Validity of the Monin-Obukhov Self-Similarity Theory in a Strongly Stratified Shear Flow *Vincent Joel Peterhans* **4A.4:** Energy Anisotropy, Turbulence Organization and the Role of Pressure-Redistribution in Near-Surface Unstably-Stratified Turbulence *Ivana Stiperski* **4A.5:** Turbulent Transport Mechanism in the Roughness Sublayers over Idealized Urban Areas and its Implication to Pedestrian-Level Ventilation *Chun-Ho Liu* **4A.6:** amazing grass: a numerical study of atmosphere-grass interactions *Bas Van de Wiel*	**4B.1:** The Structure of the Vertical Temperature Profile and Scaling Relations for Heat of the Near-Surface Stable Boundary Layer *Karl Lapo* **4B.2:** Complex Interactions in the Arctic: Exploring the Marginal Ice Zone, Boundary Layer Dynamics, and Surface Heterogeneity *Abed Hammoud* **4B.3:** A Comparison of Subfilter-scale Motions from Fine Mesh LES and Observations of Stable Atmospheric Boundary Layers *Peter Sullivan* **4B.4:** Buoyancy-Pressure Correlations in Stably Stratified Turbulence *Young Ro Yi* **4B.5:** A stochastic generalization of Monin Obukhov Similarity Theory for stable boundary layers (Invited Presentation) *Nikki Vercauteren* **4B.6:** Effect of Thermal Stratification on Pollutant Dispersion in the Atmospheric Boundary Layer *Marilina Barulli*	**4C.1:** Scalar Transport via Sweep-Ejection Events in a Height-Heterogeneous Canopy: Insights from Experiments *lior shig* **4C.2:** Wind and Turbulence Fields Altered by Plants and Photovoltaic Panels. What is the Impact on Plant-Air Convective Exchanges? *Joseph Vernier* **4C.3:** Rethinking the Roughness Height: an Improved Description of Temperature Profiles over Short Vegetation *Judith Boekee* **4C.4:** A New Idealized Approach to Study Turbulence over Forests in Complex Terrain: Application to the Amazon Forest (Invited Presentation) *Marcelo Chamecki* **4C.5:** Moisture and Carbon Dioxide Turbulent Exchange within and above the Amazon Rainforest: a Multi-layer Modelling and Observational Perspective *Raquel González Armas* **4C.6:** The Turbulent Pressure Variance Within the Roughness Sublayer of a Subarctic Forest Canopy *Gabriel G. Katul*	1:45
3:15	**Poster Session I (Foyer)**			3:15
	Novel approaches for numerical simulations of the ABL	Stable and polar boundary layers II	New data sets and field experiments I	
4:45	**5A.1:** A Wall-Integral Approach Combined with Stretched-Vortex SGS model for LES of Neutral Atmospheric Boundary Layers *Xiao Liu* **5A.2:** Enabling turbulence-resolving weather modeling at sub-meter grid spacings (Invited Presentation) *Domingo Munoz-Esparza* **5A.3:** Extending Turbulence Generation Methods for Efficient Mesoscale-to-LES coupling *Nicolai Krieger* **5A.4:** Coherent Structures in the Atmospheric Boundary Layer using Resolvent Analysis *Livia S. Freire*	**5B.1:** Research progress and current application of weak turbulence and Turbulence intermittency in stable boundary layers *Yan Ren* **5B.2:** The Arctic Inversion Boundary-Layer (AIBL) Paradigm: Description and Observations of Key AIBL Features and their Modulation during MOSAiC *Ola Persson* **5B.3:** Revisiting The Energy-and Flux-Budget model in Heterogeneous and Urbanized Environments *Silvia Trini Castelli* **5B.4:** Direct Numerical Simulations of Long-lived Stable Atmospheric Boundary Layers *Inanc Senocak*	**5C.1:** The AWACA project and atmospheric boundary layer along a 1100 km coast – plateau observation transect in Antarctica. *Christophe Genthon* **5C.2:** Towards Long-term Evaluation of Turbulence Parameterisations Using a New Doppler Lidar Dataset *Natalie Harvey* **5C.3:** Advancing Marine Boundary Layer Observations Using the Helicopter Observation Platform (HOP) *Roni Avissar* **5C.4:** An Overview of the Cold-Air Experiment over the Sub-Arctic Region (CAESAR) campaign *Paquita Zuidema*	4:45
5:45	**Welcoming Reception (Foyer)**			5:45

Wednesday, 18 June 2025

25th Symposium on Boundary Layers and Turbulence

	500 Room	Londra Room	Madrid Room	
	General boundary layer theory II	Sea-air interactions and marine boundary-layer processes	Urban boundary layers (including results from UIFL campaigns) I	
8:30	**6A.1:** Statistical State Dynamics based study of symmetric circulations in Eady front turbulence *Eojin Kim* **6A.2:** Observed Sensitivity of Boundary Layer Growth Rates to Lower Tropospheric Stability, Subsidence, and Surface Fluxes over Kansas *Ian C. Faloona* **6A.3:** Solar eclipse switching of surface layer turbulent fluxes *Thomas Foken* **6A.4:** Progress on Modeling the Streamwise Velocity Variance in Near-Neutral and Stable Atmospheric Surface Layers *Dan Li* **6A.5:** A Stochastic Modal Velocity Description of Near-surface Rough Wall Turbulence *michele guala* **6A.6:** Scaling of the vertical velocity spectrum and variance in the neutral surface layer *Michael Heisel*	**6B.1:** Direct measurements of CO2 fluxes over the Baltic Sea: Effects of organic matter and extreme conditions on gas transfer dynamics. *Iwona Honorata Niedzwiecka* **6B.2:** The influence of convective organization on surface wind stress in a Large-Eddy Simulation ensemble *Edoardo Foschi* **6B.3:** Mesoscale internal waves on the subtropical stratocumulus decks *Brian E. Mapes* **6B.4:** Turbulent Transport of Sea Spray Aerosols in Coastal Region: A Scanning Doppler LiDAR Experiment *Giacomo Valerio Iungo* **6B.5:** The Characteristic of Multi-scale Flow Structure and its Parameterization on Air-Sea Flux in the Atmospheric Boundary Layer *Xueling Cheng* **6B.6:** Surface Wave-Aerodynamic Roughness Length Model for Air-Sea Interactions (Invited Presentation) *Charles Meneveau*	**6C.1:** Real-time modeling of urban flows in the Energy Research and Forecasting model *Adam S. Wise* **6C.2:** Reconciling the Scaling of Urban Air Temperature with Heat Flux under Calm Conditions *Sean Robert O'Brien* **6C.3:** A relationship between upward heat transport and building arrangement in urban districts of Osaka as revealed from large-eddy simulations *Seika Tanji* **6C.4:** LES approach to urban boundary layer over heterogeneous roughness under a typhoon *Hidenori Kawai* **6C.5:** Ensemble LES Study on the Impact of Tropical Cyclone Boundary Layer Structures on Peak Wind Speeds and Wind Pressure in Urban Areas *Masaharu Kawaguchi* **6C.6:** A preliminary study on the "explicit" integration of building heights in the high resolution AROME model *Eric Bazile*	**8:30**
10:00	**Coffee Break (Foyer)**			**10:00**
		Keynote I		
10:45		**7.1:** Challenges modeling the mountain boundary layer *Manuela Lehner*		**10:45**
	New Data Sets and Field Experiments II	Fire Meteorology	Urban Boundary Layers (including results from UIFL campaigns) II	
11:30	**8A.1** Marine Boundary Layer Turbulence and Meso-Scale Cloud Organization: Presentation of the MAESTRO Turbulence Data Set and SAR Synergies *Louis Jaffeux* **8A.2** Are We There Yet? Intercomparision of Weather-Sensing UAS During the SCALES Field Campaign *Tyler M Bell* **8A.3** Overview of the SCALES Field Campaign - A Distributed Network of WxUAS to Sense PBL Evolution of Lower Atmosphere and Associated Urban Impacts *James O. Pinto*	**8B.1A** High Temporal Resolution Measurements of NH3 Exchange between Forest and Atmosphere Ewout *Adriaan Melman* **8B.2** Comparing Turbulent Intermittency During Prescribed Fires *Alec Petersen* **8B.3** Analysis of a Severe Wildfire Event over Calci (Italy) using WRF-FIre *Simona Rinaldi*	**8C.1** Multi Scale Analysis of Flow over Heterogeneous Urban Environment *Jingzi Huang* **8C.2** Lessons learned from operating Doppler Wind Lidar Observations in ICOS Pilot Cities for three Years *Christopher C. Holst* **8C.3** Extreme Winds, Stagnation Zones, and Ventilation Solutions for Urban Canopies *Elie Bou-Zeid*	**11:30**
12:15	**Lunch Break**			**12:15**
	Mountainous boundary layers (including results Team-X campaign) I	Stable and polar boundary layers III	Parameterization of boundary layers in weather and climate models II	
1:45	**9A.1:** Impacts of Three Dimensional Effects in the Turbulence Parameterization in Complex Terrain with the High Resolution AROME Model *Léo Rogel* **9A.2:** Linear Mountain Waves in Flow Past a Mountain Range with Concavity and Convexity *Kazuo Saito* **9A.3:** WAVELET ANALYSIS OF UNSTEADY DOWNSLOPE FLOWS *Laura S. Leo* **9A.4:** Flow Structure and Turbulence Characteristics of a Mid-Latitude Glacier Boundary Layer *Ivana Stiperski* **9A.5:** Boundary Layer Dynamics During Downslope Windstorms in a Wildfire-Prone Coastal Mountain Range of Southern California: Simulations and Observations from the Sundowner Winds Experiment (SWEX) *Gert-Jan Duine* **9A.6:** Disentangling mechanisms controlling atmospheric transport and mixing processes over mountain areas at different space- and timescales: preliminary results from the field campaigns of the project DECIPHER. *Dino Zardi*	**9B.1:** Dominant Structures in Ekman Flows and Reynolds Stress Tensor Anisotropy *Abhishek Harikrishnan Jr.* **9B.2:** Effect of leads on the ABL structure over sea ice: large-eddy simulations and single-column modelling. *Dmitry Chechin* **9B.3:** Topographic Influences on Turbulence Intermittency in the Stable Boundary Layer *April L. Hiscox* **9B.4:** A Unified Framework for Similarity Functions: Connecting MOST and EFB Closure Theory *Giampietro Casasanta* **9B.5:** The Impact of Turbulent Transport Efficiency on Surface Vertical Heat Fluxes in the Arctic Stable Boundary Layer Predicted from Similarity Theory and Machine Learning *Christoph K. Thomas* **9B.6:** Sensible heat flux scaling with wind speed in the stable boundary layer *Otavio C. Acevedo*	**9C.1:** A balanced model of a hurricane vortex coupled to a boundary layer *Robert John Beare* **9C.2:** Boundary-Layer Representation and its Impact on Large-Scale Flow Dynamics in Numerical Weather Prediction and Climate Models *Gunilla Svensson* **9C.3:** The Surface Layer Parameterization Including the Presence of Suspended Snow Particles foe Earth System Models *Victoria Igorevna Suiazova* **9C.4:** Improvement in dry convections representation in NWP models: an overlap issue of Boundary Layer and Convection scheme *wonheung kim* **9C.5:** Variations of Subgrid-Scale Turbulent Fluxes in the Dry Convective Boundary Layer at Gray Zone Resolutions (Invited Presentation) *Bowen Zhou* **9C.6:** Adaptive Turbulence Schemes with Ensemble-based Parameter Estimation *Stefano Serafin*	**1:45**
3:15	**Poster Session and Coffee Break**			
	Urban boundary layers (including results from UIFL campaigns) III	Artificial intelligence in boundary layer studies	New observational techniques and measurement strategies I	
4:45	**10A.1:** The Role of Turbulence and thermally-driven flows in NO_2 pollution in Madrid (Spain): An observational and numerical assessment. *Pablo Ortiz Ortiz-Corral Sr.* **10A.2:** Turbulence Anisotropy in the Urban Roughness Sublayer: Bridging Townsend's Attached Eddy Model and Lumley's Invariant Analysis *Khaled Ghannam* **10A.3:** Investigating Urban Boundary Layer Turbulence in Bolognina Using High-Resolution LES *Daniela Cava* **10A.4:** Urban Modifications of the Boundary Layer along a Rural-Urban Transect in Paris, France *Dana Looschelders* **10A.5:** The role of the coastal boundary layer in Houston air quality *Yang Li* **10A.6:** Investigation of the Urban Surface Energy Balance using Large-Eddy-Simulation *Maarten van Reeuwijk*	**10B.1:** A New Large-Eddy Simulation Model in JAX with GPU Acceleration and Automatic Differentiation *Xingyu ZHU* **10B.2:** Bayesian Inversion to Quantify Parameter Uncertainty in RANS Turbulence Models for Stratified Atmospheric Boundary Layer Flows *Ethan YoungIn Shin* **10B.3:** Visual clues on the state of the surface layer: deep learning from the Raman-shifted Eye-safe Aerosol Lidar (REAL) *Pierre Dérian* **10B.4:** Interpretable machine learning reveals the drivers of turbulence anisotropy over flat and complex terrain. *Samuele Mosso* **10B.5:** ForeCAT: Predicting Eddy Dissipation Rates (EDR) with Artificial Intelligence to Forecast Clear Air Turbulence for Aviation Safety *Aditya Sengupta* **10B.6:** Climatology and Machine Learning-Based Forecasting of Near-Surface Thermal Inversions in a Karst, dimpled Terrain. *Eric Rappin*	**10C.1:** SAMURAI - Making sonic anemometers fly *Joachim H. Reuder* **10C.2:** Unveiling Spatio-temporal Turbulence Structures with In Situ Measurements from a Multicopter UAS Fleet *Norman Wildmann* **10C.3:** Can we Estimate Evaporation using Commercial Microwave Links? *Luuk van der Valk* **10C.4:** Evaluating sea-breeze induced changes to atmospheric turbulence and convection using uncrewed aircraft systems and surface-based sensors during TRACER *Gijs de Boer* **10C.5:** Using mobile ceilometers to probe the horizontal structure of a valley boundary layer *Ricardo C. Munoz*	**4:45**

Thursday, 19 June 2025

25th Symposium on Boundary Layers and Turbulence

	Londra Room	Madrid Room	
	New observational techniques and measurement strategies II	**Convection and clouds in the boundary layer I**	
8:30	**11A.1:** Tethered Balloons as Low-Cost Flow Sensors for Large-Scale Motions in the Atmospheric Boundary Layer *Nathaniel Wei* **11A.2:** Designing Observing System Simulation Experiments for the Atmospheric Planetary Boundary Layer *Derek J. Posselt, PhD* **11A.3:** Tomographic 3D Reconstructions of Artificial Releases of SO2 in the Atmospheric Boundary Layer: Insights into 1- and 2-point Statistics *Ignacio Pisso* **11A.4:** Comprehensive Wind Profiling of the Atmospheric Boundary Layer by Integrating Pulsed and Continuous Wave Doppler Lidars *Finn Burgemeister* **11A.5:** Advancing Atmospheric Turbulence Measurements with Multi-Path Ultrasonic Anemometers *Hans-Juergen Kirtzel* **11A.6:** Where to Place an Anemometer? A Wind Tunnel Study *Klara Jurcakova*	**11B.1:** High Resolution Simulations of a Cumulus Congestus Growing from a Turbulent Convective Boundary Layer: Implications for Cloud Droplet Formation and Growth *Wojciech W. Grabowski* **11B.2:** An Evaluation of Horizontal Convective Roll Characteristics and Occurrence in sub-km Simulations during the 2023 WesCon - WOEST Campaign *Isabelle Ruth Gorst* **11B.3:** Pressure Anomalies in Compressible Large Eddy Simulations of Shallow Cumulus Clouds *Yi Lin* **11B.4:** PBL- Cloud-Coupling and Impact on Cloud Development and Aerosol Cloud Interactions *Zhanqing Li* **11B.5:** Meter-scale effects of sedimentation and radiation in subtropical stratocumulus *Juan Pedro Mellado* **11B.6:** Carbon dioxide turbulent exchanges before, during and after shallow cumulus formation above the Amazon rainforest (Invited Presentation) *Jordi Vila-Guerau de Arellano*	**8:30**
10:00	**Coffee Break (Foyer)**		**10:00**
	Keynote II		
10:45	**12.1:** Boundary-layer challenges for wind energy (Keynote) *Julie K. Lundquist*		**10:45**
11:30	**13A.1:** Fast RANS Models for Turbulent Flows over Heterogeneous Vegetation Canopy and Complex Terrain **Kostis Lazaridis** **13A.2:** Perturbed Roughness Sublayer Affecting the Law of the Wall Modeled By a "Co-Spectral Link" **Yardena Bohbot Raviv** **13A.3:** Buoyancy Influences on Turbulent Flow over Forested Hills **Edward G. Patton**	**13B.1:** Turbulence Scaling, Organization, and Spectral Properties in the Moist Convective Boundary Layer **Scott T. Salesky** **13B.2:** Investigation on Wall-Resolved and Wall-Modeled Large-Eddy Simulations of Daytime Barotropic Atmospheric Boundary Layers **Tariq Md Ridwanur Rahman** **13B.3:** Convective Cold Pools and Attendant Turbulence at the Amazon Tall Tower Observatory (ATTO) (Invited Presentation) **Mauricio Oliveira**	**11:30**
	Parameterization of boundary layers in weather and climate models - III	**New observational techniques and measurement strategies III**	
1:45	**14A.1:** The impact of improved parametrizations of near-surface fluxes in the Arctic boundary layer on the large-scale circulation in regional and global climate model simulations *Dörthe Handorf* **14A.2:** Dynamic Anisotropic Turbulent Subgrid-Scale Model for Grey Zone Simulations *Dimitar Georgiev Vlaykov* **14A.3:** Can We Resolve Mesoscale Convective Circulations in the "Gray Zone?" *Branko Kosovic* **14A.4:** Weak Sensitivity of Mean Boundary Layer Characteristics to Subgrid-Scale Turbulence Parameterizations in Nested Large Eddy Simulations *Paolo Giani* **14A.5:** Using Doppler lidar vertical velocity measurements in convective boundary layer for model development *Natalie E. Theeuwes* **14A.6:** What is the best approach to calibrate a global storm resolving model? (Invited Presentation) *Yunyan Zhang*	**14B.1:** Exploiting Novel, Ground-based Profiling Techniques in the Atmospheric Boundary Layer *Ulrich Loehnert* **14B.2:** Advancing Atmospheric Physics: A Multisensor Approach to Analyze Boundary Layer Dynamics in the Mid-Atlantic Region *Christopher "Chuck" C. Baker Jr.* **14B.3:** Will a worm turn? Observing vertical vorticity structures near supercells and tornadoes *Elizabeth N. Smith* **14B.4:** Systematic Evaluation of Assimilating Ground-Based Profiling Observations for Prediction of Convection Initiation Events in New York State *Tammy M. Weckwerth* **14B.5:** Toward a Global Space-Based Planetary Boundary Layer Observatory *Joao P. Teixeira* **14B.6:** Study of Vertical Distribution and Influence of Boundary Layer Dynamics on New Particle Formation *Anna Gannet Hallar*	**1:45**
3:15	**Poster Session and Coffee Break (Foyer)**		**3:15**
	Flow and turbulence in and over vegetated canopies III	**Boundary-layer meteorology and wind energy I**	
4:45	**15A.1:** Breaking Through Drag Partition: An Appraisal of the Raupach Model *Elia Buono* **15A.2:** Stratification Effects on Momentum Transfer in the Roughness Sublayer over Tall Forested Canopies *Luca Mortarini* **15A.3:** Characterization of observed In-canopy light fluctuations from sub-second to diurnal time scales - towards understanding dynamic photosynthesis at canopy scale *Arnold F. Moene* **15A.4:** Turbulence within a Canopy Clearing *Patrick Hawbecker* **15A.5:** Investigating Buoyant Plume Dynamics During Wildland Fires Over Plant Canopies Using Large-Eddy Simulations (LES) *Ajinkya Desai* **15A.6:** Turbulence Boundary Layer Over Re-configurable Tree Canopies *Kourosh Shoele*	**15B.1:** A new mesoscale parameterization for added turbulence by wind turbines *Cristina Lozej Archer* **15B.2:** Coriolis Effects on Wind Turbine Wakes in the Atmospheric Boundary Layer *Michael Howland* **15B.3:** Is a Partial-Slip Boundary Condition at the Surface Appropriate in an LES of Stably-Stratified Atmospheric Flow? *Antonia Englberger* **15B.4:** Preliminary Study on the Effect of Wind Farm Clear-air Echoes in the Convection Initiation *Chenggang Wang Sr.* **15B.5:** Impacts of Wind Farms on Boundary-Layer Properties in the American Southern Great Plains *Arianna Marie Jordan* **15B.6:** Atmospheric boundary layer simulations for Perdigao using WRF-LES *Gokhan Kirkil*	**4:45**

Friday, 20 June 2025

25th Symposium on Boundary Layers and Turbulence

	Londra Room	Madrid Room	
	The ABL over heterogeneous land surfaces I	Beyond the textbook: unsteadiness, advection, baroclinicity, and more	
8:30	**16A.1:** Validity of Taylor's Frozen Turbulence Hypothesis Within a Forest Clearing *Subharthi Chowdhuri* **16A.2:** On the Shear Stress in Separation Regions Within Atmospheric Boundary Layers over Complex Terrain *Majed Wardeh* **16A.3:** Strongly Stable Boundary-Layer Flows over Thermally Heterogeneous Surfaces: Effect of Heterogeneity Orientation *Dmitrii V. Mironov* **16A.4:** Are the observed surface heterogeneities represented in the mesoscale models? *Results of the 1st mesoscale intercomparison of the LIAISE (Land surface Interactions with the Atmosphere over the Iberian Semi-arid Environment) experimental field campaign* *Maria A. Jimenez* **16A.5:** Observational Evidence of Lift in the Canopy Layer Caused by Elongated Buildings or a Narrow Forest Band *Bertrand C. Carissimo* **16A.6:** Spatial Eddy Covariance from Multi-Tower Setup for Dispersive Flux Estimation *Hawwa Kadum*	**16B.1:** Scaling the Vertical-Velocity Variance During the Very Late Afternoon Transition of the Convective Boundary Layer *Omar El guernaoui* **16B.2:** Directionality of the Turbulent Exchange of Momentum: an Eigen-Decomposition Approach *Federica Gucci Jr.* **16B.4:** Revisiting the Surface Energy Imbalance with Total Energy Conservation *Jielun Sun 16B.5A: Simulating the Spectrum of Atmospheric Flow and Extreme Wind Statistics with Real-Weather Large-Eddy Simulation* ***Bernard Postema*** **16B.6:** On the scaling of turbulence and associated transport processes in thermally-driven slope winds (Invited Presentation) *Dino Zardi*	**8:30**
10:00	**Coffee Break**		**10:00**
	Keynote III		
10:45	**17.1:** Atmospheric Boundary Layer Turbulence: from MOST to the role of Horizontal Transport *Marc Calaf*		**10:45**
	Boundary-Layer Meteorology and Wind Energy II		
11:30	**18A.1** Modeling Wind Farm–Atmosphere Interactions (Invited Presentation) *Richard J.A.M. Stevens* **18A.2** Enhancing Wind Speed Forecasting with Turbulence Data: An Explainable Machine Learning Approach *Jhon Quinones* **18A.3** Impact of Subgrid-Scale Model on Large-Eddy Simulations of a Wind Farm in Stable and Conventionally-Neutral Conditions *Mina Ghobrial*	**18B.1** Impact of Roof-top Photovoltaics on the Urban Microclimate: High-resolution LES study using the PALM Model System *Julian Anders* **18B.2** Wind flow dynamics over a photovoltaic power plant: comparison with a vegetated canopy *Shunko Bolsee*	**11:30**
12:15	**Lunch Break**		**12:15**
	The ABL over heterogeneous land surfaces II	Interactions with radiation and clouds and implications for solar energy II	
1:45	**19A.1:** Regional Impacts of Simulated Irrigation on ABL Structure in an Earth System Model. *Pierre Tiengou* **19A.2:** Analyses of the Impact of Surface Source Heterogeneity on Scalar Similarity Using Multi-Scalar Observations and Large Eddy Simulations *Olli Peltola* **19A.3:** Flux-Gradient Relationships for Heat and Water Vapor in Heterogeneous Semi-Arid Environments *Daniel Martinez* **19A.4:** Modeling the CO2 Transport Through Surface-Heterogeneity Induced Secondary Circulations Using Deep Learning *Luise Wanner* **19A.5:** Generalized MOST Framework with Turbulence Anisotropy as a Boundary Condition for High Resolution Large-Eddy-Simulations. *Benjamin Mark Udina* **19A.6:** Anisotropy-Generalized Monin Obukhov and Scalar Exchange Over Varied Ecosystems and Vegetated Canopies *Marc Calaf*	**19B.1:** Parameterization of Floating Photovoltaic Arrays for Energy Yield Assessments *Baptiste Amiot* **19B.2:** Modeling Heat and Mass Transfer for a Floating Photovoltaic power plant using the Immersed Boundary Method *Baptiste Berlioux* **19B.3:** How do 3D Radiative Effects impact the Cloud-topped Boundary Layer? *Mirjam Tijhuis* **19B.5:** Sensitivities of CCCma calculated SW fluxes at surface and TOA to different liquid cloud profiles *Xiquan Dong* **19B.6:** The Shedding Light On Cloud Shadows project: measuring and simulating surface solar irradiance under broken clouds *Chiel van Heerwaarden*	**1:45**
3:15	**Coffee Break**		**3:15**
	The ABL over heterogeneous land surfaces III	Mountainous boundary layers (including results Team-X campaign) II	
4:00	**20A.1:** Impact of Vegetation Barriers on Inertial Particle Transport and Preferential Deposition in Dust Storms *Shuai Shuai* **20A.2:** A Simplified Land Surface Model to Assess the Representation of Land-Atmosphere Coupling with Surface Heterogeneities using a Hierarchy of Models *Alice Maison* **20A.3:** The role of surface heterogeneity in modifying boundary layer structures *Andrew Neil Ross* **20A.4:** Coastal-Urban Environments: Analysis of Planetary Boundary Layer Evolution Following Sea Breeze Events During CUBIC *Michelle Rose Storm* **20A.5:** Influence of Wetlands Type Surface Heterogeneity on Boundary Layer in Diurnal Cycle: Large-Eddy Simulation Study *Andrey V. Debolskiy* **20A.6:** Characterictics of turbulence observed in the low troposphere over a highly-contrasted area (Invited Presentation) *Marie Lothon*	**20B.1:** Evening-Transition Thermal Processes and Flow-Dynamics Over Opposing Slopes *Rui Cheng* **20B.2:** Unravelling relevant scales in the mountain boundary layer by evaluating observations and numerical models with a data-driven method *Brigitta Goger* **20B.3:** Parametrization of the Convective Boundary Layer over Subgrid Orography *Nathan Philippot* **20B.4:** Investigating the surface energy balance closure over mountain areas: results from the INTERFACE project *Lorenzo Giovannini* **20B.5:** Is Finite-volume Cut-cell Eta, or Similar, Pointing Ways of Doing a Decent Boundary Layer Job with Very Rough Topography? *Fedor Mesinger*	**4:00**
5:30	**Conference Adjourns**		**5:30**