

34th International Conference on Alpine Meteorology, Reykjavík, 18-23 June 2017

Monday 19 June		
08:30		Registration
08:45		Welcome
09:00	O1.1	An invited talk on Icelandic volcanoes Magnús Tumi Guðmundsson
09:30-10:30	O1	Oral session: Downslope windstorms, mountain wakes and rotors I Chair: Ron Smith
09:30	O1.2	The influence of an isolated ridge on a mid-latitude cyclone and upper level jet Dale Durran (University of Washington, USA), Maximo Menchaca
09:45	O1.3	An adiabatic Foehn effect Florentin Damiens (Ecole Normale Supérieure, France), François Lott, Christophe Millet, Riwal Plougonven
10:00	O1.4	Penetration and interruption of Alpine foehn (PIANO): Description of upcoming field experiment Alexander Gohm (University of Innsbruck, Austria), Lukas Omek
10:15	O1.5	Penetration and interruption of Alpine foehn (PIANO): preliminary high-resolution numerical simulations Lukas Omek (University of Innsbruck, Austria), Alexander Gohm
Coffee break & Poster session P1		
11:15-12:30	O2	Oral session: Downslope windstorms, mountain wakes and rotors II Chair: Dale Durran
11:15	O2.1	Broad spectrum mountain waves Ronald Smith (Yale University, USA), Christopher Kruse
11:30	O2.2	Influence of surface roughness on downslope windstorms and mountain waves Martina Tudor (Meteorological and Hydrological Service, Croatia), Stjepan Ivatek-Šahdan, Antonio Stanešić, Mario Hrastinski
11:45	O2.3	Mountain wave turbulence in the presence of directional wind shear over the Rocky Mountains Maria Vittoria Guarino (University of Reading, UK), Miguel Teixeira, Maarten Ambaum, Teddie L. Keller, Robert Sharman
12:00	O2.4	A simple model for the amplitude of lee waves on the boundary-layer inversion Johannes Sachsperger (MeteoServe Wetterdienst GmbH, Austria), Stefano Serafin , Vanda Grubišić, Ivana Stiperski, Alexandre Paci

12:15	O2.5	Wake formation in the lee of a small but high island: modelling and observations Andrew Ross (University of Leeds, UK), John Hughes, Simon Vosper
Lunch		
13:45		Weather forecast
14:00-15:30	O3	Oral session: Downslope windstorms, mountain wakes and rotors III Chair: Evelyne Richard
14:00	O3.1	Mountain waves and cloud bands: cases studies of 21 May 1937 and 1 February 2014 within a long research tradition Hans Volkert (DLR, Germany)
14:15	O3.2	Gravity waves generated at small Rossby number by large amplitude topography David Muraki (Simon Fraser University, Canada), Joseph Klemp
14:30	O3.3	Detection of gravity waves across the Snaefellsnes Peninsula: A case study Ioana Colfescu (NCAS, Leeds), Stephen Mobbs, Ralph Burton, Axel Wellpott, Haraldur Ólafsson, Guðrún Nína Petersen, Alan Gadian, Barbara Brooks.
14:45	O3.4	Mountain wave attenuation and momentum deposition in sheared environments Christopher Kruse (Yale University, USA), Ronald Smith
15:00	O3.5	The community foehn classification experiment Georg Mayr (ACINN University of Innsbruck, Austria), David Plavcan
15:15	O3.6	Origin of the lee-side hydraulic jump Richard Rotunno (NCAR, USA), George Bryan
Coffee break & Poster session P2		
16:15-17:00	O4	Oral: Weather forecasting in mountainous regions I Chair: Hans Volkert
16:15	O4.1	Heavy Precipitation and Flash Flood Events over Eastern Pyrenees Evelyne Richard (Laboratoire d'Aérologie, France), Maria Tous Nadal
16:30	O4.2	Forecast verification of precipitation and wind in complex terrain Gregor Skok (University of Ljubljana, Slovenia), Nigel Roberts, Hladnik Veronika
17:00	A short walk over to the Reykjavík City hall	
17:30	Reception in Reykjavík City hall	

Tuesday 20 June		
08:30	O5.1	An invited talk on Icelandic glaciers Tómas Jóhannesson (Icelandic Meteorological Office), Þorsteinn Þorsteinsson, Bergur Einarsson
09:00-10:30	O5	Oral session: Orographic precipitation I Chair: Samantha Smith
09:00	O5.2	The Enhancement of Lake-Effect Precipitation over the Tug Hill Plateau during the Ontario Winter Lake-effect Systems (OWLeS) Field Program Jim Steenburgh (University of Utah, USA), Leah Campbell, Peter Veals, Justin Minder, Ted Minder, Bart Geerts, Phil Bergmaier
09:15	O5.3	Characteristics of Easterly-Induced Snowfall in the Yeongdong region of Korea Byung-Gon Kim (Gangneung-Wonju National Universit, Korea (Rep)), Dae-Hong Koh, Juncheul Park, Seung-Hee Eun, Byeong-Cheol Choi
09:30	O5.4	Simulations of convective flash flood events in southern Switzerland Camden Plunkett (Embry-Riddle Aeronautical University, USA), Curtis James
09:45	O5.5	Orographic effects of the subtropical and extratropical Andes on precipitating clouds Maximiliano Viale (IANIGLA-CONICET, Argentina), Gualberto Zalazar, Emilio Bianchi
10:00	O5.6	Terrain-trapped airflows and orographic rainfall along the coast of northern California: Horizontal and vertical structures of kinematics and precipitation Raul Valenzuela (University of Colorado, USA), David Kingsmill
10:15	O5.7	Role of the orography in the generation of a tornadic supercell in the Mediterranean Mario Marcello Miglietta (ICAS-CNR, Italy), Mazon Jordi, Richard Rotunno
Coffee break & Poster session P3		
11:15-12:30	O6	Oral session: Orographic precipitation I Chair: Jim Steenburgh
11:15	O6.1	Use of a sub-grid orographic rain enhancement scheme in the MetUM Samantha Smith (Met Office, UK), Paul Field, Simon Vosper
11:30	O6.2	Dual-pol radar based hydrometeor classification: analysis of orographic precipitation mechanisms Nikola Besic (EPFL, Switzerland), Luca Panziera , Jordi Figueras i Ventura, Marco Gabella, Urs Germann, Olivia Romppainen-Martius, Alexis Berne
11:45	O6.3	Study on characteristics of snow crystal from the two-layer cloud structure in Yeongdong region of Korean Peninsula

		Yoo-Jun Kim (National Institute of Meteorological Sciences, Korea (Rep)), Byoung-Choi Choi, Jae-Kwan Shim, Byung-Gon Kim
12:00	O6.4	Numerical Study of Physical Processes Controlling Summer Precipitation over the Western Ghats Region Gang Zhang (Yale University, USA), Ronald Smith
12:15	O6.5	Numerical Study of Physical Processes Controlling Summer Precipitation over the Western Ghats Region Adriana Bailey (Dartmouth College, USA), Georgia Murray
		Lunch
13:45		Weather forecast
14:00-15:30	O7	Oral session: Downslope windstorms, mountain wakes and rotors IV Chair: Vanda Grubišić
14:00	O7.1	The environment of orographic wave clouds in the lee of the Colorado Front Range (and Oklahoma) Howard Bluestein (University of Oklahoma, USA), Simon Lee, Kiernan Lee, Matthew Holliday
14:15	O7.2	The Influence of Mountain-Forced Waves on the Atmospheric Kinetic Energy Spectrum Max Menchaca (University of Washington, USA), Dale Durran
14:30	O7.3	Photogrammetric analysis of rotor clouds observed during T-REX Ulrike Romatschke (NCAR, USA), Vanda Grubišić, Joseph A Zehnder
14:45	O7.4	Trapped lee waves at an inversion in flow over axisymmetric hills: theory and laboratory measurements of the drag Miguel Teixeira (University of Reading, UK), Alexandre Paci, Anne Belleudy
15:00	O7.5	The impact of upstream flow on the boundary layer in a valley – observations and high-resolution simulations Bianca Adler (Karlsruhe Institute of Technology, Germany), Norbert Kalthoff, Inge Bischoff-Gauß
15:15	O7.6	Observational and numerical analysis of pulsations and turbulence in a bora downslope windstorm event Kristian Horvath (Meteorological and Hydrological Service, Croatia), Zeljko Vecenaj, Branko Grisogono, Branko Kosovic, Mario Hrastinski
		Coffee break and Poster session P4
16:15-17:00	O8	Oral session: Downslope windstorms, mountain wakes and rotors V Chair: Howard Bluestein
16:15	O8.1	Atmospheric rotors, downslope windstorms and severe turbulence in a deep long valley Vanda Grubišić (NCAR, USA), Lukas Strauss, Stefano Serafino
16:30	O8.2	Radar kinematic information as surrogate for isentropes in stratiform orographic storms

		Bart Geerts (University of Wyoming, USA), Jordan Christian
16:45	O8.3	The impact of resolution on the representation of wind field in the vicinity of large Greenlandic fjords Kent Moore (University of Toronto, Canada), Debenedetti Marc
17:00	O8.4	Observation plans of ICE-POP2018 and the preliminary results Byoung-Choel Choi (National Institute of Meteorological Sciences, Korea (Rep)), Gye-Hak Jeon, Yoo-Jun Kim, Sang-Won Joo
17:30		Bus to Bessastaðir
18:00		Presidential reception at Bessastaðir

Wednesday 21 June		
08:30-10:30	O9	Oral session: Cryosphere and mountain hydrology Chair: Günther Zängl
08:30	O9.1	Impact of Icelandic volcanic dust on cryosphere Pavla Dagsson Waldhauserova (University of Iceland and Agricultural University of Iceland, Iceland), Outi Meinander, Maria Gritsevich, Jouni Peltoniemi, Ólafur Arnalds, Haraldur Ólafsson
08:45	O9.2	Coherent structures in the alpine atmospheric surface layer coupled with blowing snow response Nikolas Aksamit (University of Saskatchewan, Canada), John Pomeroy
09:00	O9.3	Investigating time scales in the meteorological forcing on snow avalanche activity Alec Van Herwijken (WSL Institute for Snow and Avalanche Research SLF, Switzerland), Konstantin Nebel, Matthias Heck, Jürg Schweizer
09:15	O9.4	MODIS snow cover data for calibration and evaluation of hydrological models in French mountainous regions Federico Garavaglia (EDF - DTG, France), Matthieu Le Lay, Frédéric Gottardi
09:30	O9.5	Hydrometeorological reconstruction of snow-influenced streamflow series in France since 1871 Jean-Philippe Vidal (Irstea, France), Laurie Caillouet, Eric Sauquet, Benjamin Graff, Isabelle Gouttevin, Guillaume Thirel, Alexandre Devers
09:45	O9.6	Parameterizing surface wind speed in complex topography for coarse-scale models Nora Helbig (WSL Institute for Snow and Avalanche Research SLF, Switzerland), Rebecca Mott, Alec Van Herwijken, Adam Winstral, Tobias Jonas
10:00	O9.7	Dynamical downscaling overcomes deficiencies in gridded precipitation products in the Sierra Nevada, California Mimi Hughes (University of Colorado at Boulder and NOAA, USA), Jessica Lundquist, Brian Henn
10:15	O9.8	Glacio-hydrological modelling on few alpine catchments: from recent past simulation to scenarios of future evolution Matthieu Le Lay (EDF, France), Frédéric Gottardi, Agnès Brenot, Joël Gailhard, Federico Garavaglia
Coffee break		
11:00-12:30	O10	Oral session: Weather forecasting in mountainous regions II Chair: Pavla Dagsson Waldhauserova
11:00	O10.1	Cooling by melting snowfall in Alpine valleys: could its predictability get improved in the near future? Günther Zängl (Deutscher Wetterdienst, Germany), Sten Schneider, Juerg Smidli
11:15	O10.2	Real time bias correction of very high resolution weather forecasting models for nowcasting in complex terrain

		Matteo Buzzi (MeteoSwiss, Switzerland), A. Mark Liniger, Marco Gaia, Christoph Frei, Marco Sassi
11:30	O10.3	Sub-kilometer modelling in operational NWP for areas with complex orography Xiaohua Yang (Danish Meteorological Office, Denmark)
11:45	O10.4	Wind speed analog-based predictions in complex topography Iris Odak Plenkovic (Meteorological and Hydrological Service, Croatia), Luca Delle Monache, Kristian Horvath, Mario Hrastinski
12:00	O10.5	Anelastic and compressible EULAG solvers for limited-area numerical Alpine weather prediction in the COSMO consortium Damian Wojcik (Institute Of Meteorology and Water Management, Poland), Bogdan Rosa, Michal Z. Ziemiański
12:15	O10.6	Mountains and meteorological and climatological extremes in Iceland Haraldur Ólafsson (University of Iceland and Icelandic Meteorological Office, Iceland)
Lunch		
13:15		Group photo
13:30		Excursion to Borgarfjörður and dinner

Thursday 22 June		
08:30-10:30	O11	Oral session: Boundary layers and turbulence in complex terrain I Chair: Joan Cuxart
08:30	O11.1	Experimental validation of a modelling chain simulating the dispersion of pollutants from the incinerator of Bolzano (Italy) Dino Zardi (University of Trento, Italy), Stefano Alessandrini, Gianluca Bisignano, Marco Falocchi, Enrico Ferrero, Lorenzo Giovannini, Massimo Guariento, Marco Lodi, Luca Mortarini, Marco Palmitano, Werner Tirler, Elena Tomasi, Luca Verdi
08:45	O11.2	On the relationship between atmospheric dynamics and PM10 concentration in the Arve Valley around Passy Chantal Staquet (University Grenoble Alpes, France), Julian Quimbayo-Duarte, Stella Todzo, Isabel Peinke, Gabriele Arduini, Charles Chemel, Florence Troude
09:00	O11.3	Impact of along-valley orographic variations on the dispersion of passive tracers in a stable atmosphere: an idealized study Julian Quimbayo-Duarte (University Grenoble Alpes, France), Chantal Staquet, Charles Chemel, Gabriele Arduini
09:15	O11.4	Investigation and evaluation of atmospheric processes in orographic terrain applying the WRF model with very high resolution: examples from selected cases Hans-Stefan Bauer (University of Hohenheim, Germany), Shravan Kumar Muppa, Volker Wulfmeyer, Andreas Behrendt, Florian Spaeth
09:30	O11.5	Influence of horizontal grid spacing in mountainous terrain on simulated planetary boundary layer depths in large-scale transport models Gert-Jan Duine (University of Virginia, USA), Stephan FJ De Wekker
09:45	O11.6	Large eddy simulation of snowfall preferential deposition over complex topography Francesco Comola (Swiss Federal Institute of Technology, Switzerland), Marco G. Giometto, Marc B. Parlange, Michael Lehning
10:00	O11.7	The spatial variability of the temperature structure in a major east-west oriented valley in the Alps Yasmin Markl (Zentralanstalt für Meteorologie und Geophysik, Austria), Lavinia Laiti, Mathias W. Rotach
10:15	O11.8	Limited-area ensemble forecasts during Sochi-2014 Winter Olympics: multi-model vs single-model approach Andrea Montani (Arpae, Italy), Chiara Marsigli, Tiziana Paccagnella
Coffee break & Poster session P5		
11:15-12:30	O12	Oral session: Boundary layers and turbulence in complex terrain II Chair: Dino Zardi

11:15	O12.1	Evolution of the temperature profile during the life-cycle of a valley-confined cold-pool in the Pyrenees Joan Cuxart (University of the Balearic Islands, Spain), Laura Conangla, Daniel Martínez-Villagrasa, Burkhard Wrenger, J.R. Miró, Gemma Simó, Maria Antonia Jiménes
11:30	O12.2	Local and non-local controls on a persistent cold-air pool in the Arve River Valley Charles Chemel (University of Hertfordshire, UK), Gabriele Arduini, Chantal Staquet
11:45	O12.3	The thermally driven wind system of the Adige Valley in the Alps Lorenzo Giovannini (University of Trento, Italy), Lavinia Laiti, Stefano Serafin, Dino Zardi
12:00	O12.4	Wintertime circulation in the Chamonix-Mont-Blanc valley from scanning wind lidar measurements (Passy-2015 field experiment) and numerical simulations Tiphaine Sabatier (Meteo-France and CNRS, France), Alexandre Paci, Yann Largeron, Christine Lac, Alain Dabas, Guylaine Canut, Pauline Martinet, Jean-Marie Donier
12:15	O12.5	Boundary-layer profiling with ceilometers in complex terrain Martin Piringer (ZAMG, Austria), Kathrin Baumann-Stanzer, Christoph Lotteraner
Lunch		
13:45		Weather forecast
14:00-15:30	O13	Oral session: Boundary layers and turbulence in complex terrain III Chair: Eric P. Kelsey
14:00	O13.1	Trailing Mountain Waves James Doyle (Naval Research Laboratory, USA)
14:15	O13.2	How essential are 3D shear effects for the representation of the turbulence kinetic energy (TKE) structure in an Alpine valley? Brigitta Goger (University of Innsbruck, Austria), Mathias W. Rotach, Alexander Gohm, Oliver Fuhrer, Ivana Stiperski, Albert A. M. Holtslag
14:30	O13.3	Characteristics of the spectral gap in a valley convective boundary layer Nevio Babic (University of Virginia, USA), Željko Večenaj, Stephan De Wekker
14:45	O13.4	Spatial variations in the diurnal cycle of turbulent fluxes in an east-west oriented valley Manuela Lehner (University of Innsbruck, Austria), Mathias W. Rotach, Eleni Sfyri, Ivana Stiperski, Friedrich Obleitner
15:00	O13.5	Integral length scales in atmospheric surface boundary layers Željko Večenaj (University of Zagreb, Croatia), Danijel Belušić, Branko Grisogono
15:15	O13.6	Dependence of similarity theory on turbulence anisotropy Ivana Stiperski (University of Innsbruck, Austria), Mark Calaf

Coffee break and Poster session P6		
16:15-17:00	O14	Oral session: Miscellaneous Chair: James Doyle
16:15	O14.1	The Impact of Mount Washington on the Vertical Structure of Temperature and Moisture and the Height of the Boundary Layer Eric P. Kelsey (Plymouth State University), Adriana Bailey, Georgia Murray
16:30	O14.2	Impact of higher boundary temperatures on simulations of atmospheric ice accretion on structures during the 2015-2016 icing winter in West-Norway Kristian Ingvaldsen (University of Oslo, Norway), Hálfdán Ágústsson, Bjørn Egil Nygaard, Terje Koren Berntsen
16:45	O14.3	Daily and sub-daily extreme rainfall over the Swiss Alps: a climatology Luca Panziera (University of Bern and MeteoSwiss, Switzerland), Marco Gabella, Urs Germann, Olivia Martius
17:00	O14.4	Multi-sensor precipitation estimation in the Alps: challenges and opportunities Marco Gabella (MeteoSwiss, Switzerland), Luca Panziera, Ioannis Sideris, Ulrich Hamann, Alexis Berne, Urs Germann, Bertrand Calpini
17:15	O14.5	US Army Research Lab's Meteorological Sensor Array Andre Pattantyus (Army Research Laboratory, USA), Jeffrey Smith, Christopher Hocut, Benjamin MacCall
17:30	O14.6	The causes of foehn warming in the lee of mountains Ian Renfrew (University of East Anglia, UK), Andrew Elvidge
17:45	O14.7	On forecasting snow surface temperature in complex alpine terrain Sascha Bellaire (WSL Institute for Snow and Avalanche Research), Tobias Sauter, Mathias W. Rotach

Friday 23 June		
08:30-10:30	O15	Oral session: Results from field campaigns Chair: Dave Whiteman
08:30	O15.1	Examples of applications of mesoscale meteorology in the complex orography of Norway Hálfdán Ágústsson (Kjeller Vindteknikk, Norway)
08:45	O15.2	The Cerdanya-2017 field experiment: an overview of the campaign and a few preliminary results Alexandre Paci (Meteo-France & CNRS, France), Joan Cuxart, Joan Bech, Maria Rosa Soler, Josep Ramon Miró et al.
09:00	O15.3	Downslope windstorms, mountain waves, orographic precipitation and associated processes analysis during 10-17 January 2017 in The Cerdanya-2017 field experiment Mireia Udina (University of Barcelona, Spain), Laura Trapero, Maria Rosa Soler, Joan Bech, Josep Ramon Miró, Alexandre Paci
09:15	O15.4	The Cerdanya Cold Pool Experiment 2015 (CCP15): a field campaign study of the cold pool in the largest pyrenean valley Daniel Martinez-Villagrassa (University of Balearic Islands, Spain), Gemma Simó, Laura Conangla, Davide Tabarelli, Josep Ramon Miró, Álvaro López-Grifol, Burkhard Wrenger, Maria Antònia Jiménez, Rodrigo Picos, Dino Zardi, Joan Cuxart
09:30	O15.5	Lidar observations and high-resolution modelling of a wind jet at the exit of the Isarco Valley (Italy) Marco Falocchi (University of Trento, Italy), Lorenzo Giovannini, Elena Tomasi, Gianluca Antonacci, Tommaso Pallaveri, Dino Zardi
09:45	O15.6	Periodic wind systems in the Dead Sea valley – first comprehensive measurements of their characteristics and evolution Jutta Metzger (Karlsruhe Institute of Technology, Germany), Ulrich Corsmeier
10:00	O15.7	Long-range transport to summits north, south and at the Eastern Alpine divide – an outstanding Sahara dust event Kathrin Baumann-Stanzer (ZAMG, Austria), Claudia Flandorfer, Christoph Lotteraner, Martin Piringer, Marion Greilinger, Anneliese Kasper-Giebl, Gerhard Schauer
10:15	O15.8	Gap wind and wakes in SE-Iceland on 18 October 2016 Guðrún Nína Petersen (Icelandic Meteorological Office, Iceland), Haraldur Ólafsson, Stephen Mobbs, Axel Wellpott, Ioana Colfescu
Coffee break & Poster session P7		
11:15-12:30	O16	Oral session: Results from field campaigns and the history of mountain meteorology Chair: Hálfdán Ágústsson
11:15	O16.1	Interactions of a mesoscale katabatic flow with a small crater basin to produce cold and warm air intrusions, flow bifurcations and a hydraulic jump

		Dave Whiteman (University of Utah, USA), Manuela Lehner, Sebastian Hoch, Bianca Adler, Norbert Kalthoff, Roland Vogt, Iris Feigenwinter, Thomas Haiden, Richard Rotunno, Matthew Hills
11:30	O16.2	Processes leading to heavy precipitation over north-eastern Adriatic during the HyMeX SOP1 Branka Ivancan-Picek (Meteorological and Hydrological Service - DHMZ, Croatia), Martina Tudor, Kristian Horvath, Antonio Stanesic, Stjepan Iivatek-Sahdan
11:45	O16.3	INCA analysis and nowcasting as part of the international collaborative experiments for the PyeongChang Olympic and Paralympic Games 2018 (ICE-POP 2018) Benedikt Bica (ZAMG, Austria), Nauman Khurshid Awan, Josef Kemetmüller, Alexander Kann, Yong Wang
12:00		Closing remarks

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