ICCP-2016 Conference Sessions - At a Glance

	Sunday 24th	Monday 25th		Tuesday 26th		Wednesday 27th		Thursday 28th		Friday 29th	
Start		Renold C16	Renold C2	Renold C16	Renold C2	Renold C16	Renold C2	Renold C16	Renold C2	Renold C16	Renold C2
08:30		Opening + Welcome		S13 (I)	S14 (II)	S8 (I)	S7 (I)	S2 (I)	S3 (I)	S6	S4 (I)
08:45											
09:00		Mason Session									
09:15											
09:30											
09:45										S9 (I)	
10:00		Coffee Break		Coffee Break		Coffee Break		Coffee Break		Coffee Break	
10:15											
10:30		**S16 (I)**	S1 (I)	S13 (II)	S14 (III)	S8 (II)	S8 (II)	S2 (II)	S3 (II)	S9 (II)	S4 (II)
10:45											
11:00											
11:15											
11:30											
11:45											
12:00											S11 (I)
12:15											
12:30		Lunch break		Lunch break (Linking lunch)		Lunch break		Lunch break		Lunch break	
12:45											
13:00											
13:15											
13:30		Poster session 1				Poster session 3		Poster session 4		S9 (III)	S11 (II)
13:45											
14:00				Poster session 2							
14:15											
14:30	**Registration**										
14:45											
15:00		**S16 (II)**	S1 (II)	S13 (III)	S15 (I)	S12 (I)	S10 (I)	S2 (III)	S5 (I)		
15:15										Concluding remarks	
15:30											
15:45											
16:00											
16:15				Coffee Break		Coffee Break		Coffee Break			
16:30		Coffee Break		S13 (IV)	S15 (II)	S12 (II)	S10 (II)	S2 (IV)	S5 (I)		
16:45		S14 (I)	S1 (III)								
17:00											
17:15											
17:30											
17:45				CMW							
18:00											
Evenings		Ice Breaker Reception at Town Hall		Laboratory Tours		ICCP Business Meeting (II)		Conference Dinner at Old Trafford			

ICCP Business Meeting (I)

Posters Sessions	Poster session 1		Poster session 2		Poster session 3		Poster session 4	
	C Renold	Marquee	C Renold	Marquee	C Renold	Marquee	C Renold	Marquee
	P1	P16	P13	P15	P10	P12	P3	P5
		P17		P14	P7	P6		P2
		P4				P8		P9
						P11		

KEY TO SESSIONS

S1	Basic cloud and precipitation physics	S10	Polar clouds and cloud systems
S2	Warm boundary layer clouds	S11	Secondary ice production
S3	Convective clouds	S12	Aerosol-cloud-precip'n-interactions and processing
S4	Mixed phase clouds	S13	Clouds and climate (inc. radiative properties of clouds)
S5	Cirrus clouds	S14	Ice nuclei and cloud condensation nuclei
S6	Cloud electrification	S15	Cloud and precipitation chemistry
S7	Entrainment and mixing	S16	Measurement techniques (cloud & precip' prop's) & uncertainties
S8	mid-latitude cloud systems	S17	Applications of cloud & precipitation physics
S9	Tropical clouds and cloud systems	Mason	Plenary Session - Honouring Sir John Mason

17th International Conference on Clouds and Precipitation:

Manchester 2016

Main Menu - Daily Conference Programme of Presentations by Sessions:

NB for all **abstracts** please go to **auto-run file** and access abstract (via **Title**; **Subject** [i.e. session]; **Author** or **Presentation number** index option)

Sunday 24th July	
3.30 - 6.30pm	**ICCP Business Meeting I** *Renold F1*
2.30 - 5.30pm	**Registration for Delegates** *Renold C8*

Return to Main Menu

Monday 25th July

8.30 – 9.00am	Opening Session and Welcome *Renold C16*
9.00 – 10.00am	Session 18 - Mason *Renold C16*
10.00 - 10.30am	**Coffee Break** *Renold C15*

Parallel Sessions

10.30am - 12.30pm	Session 1 - Basic cloud and precipitation physics I *Renold C16*
	Session 16 - Measurement techniques (of cloud & precipitation properties) & uncertainties I *Renold C2*
12.30 - 1.30pm	**Lunch** *Barnes Wallis Room*

Posters

1.30 – 3.00pm	Session P1 - Basic cloud and precipitation physics *Renold C floor foyer*
1.30 – 3.00pm	Session P16 - Measurement techniques (of cloud & precipitation properties) & uncertainties *Marquee*
	Session P17 - Applications of cloud & precipitation physics *Marquee*
	Session P4 - Mixed phase clouds *Marquee*

Parallel Sessions

3.00 - 4.15pm	Session 1 - Basic cloud and precipitation physics II *Renold C16*
3.00 - 4.15pm	Session 16 - Measurement techniques (of cloud & precipitation properties) & uncertainties II *Renold C2*
4.30 - 4.45pm	**Coffee Break** *Renold C15*
4.45 – 6.00pm	Session 1 - Basic cloud and precipitation physics III *Renold C16*
	Session 14 - Ice nuclei and cloud condensation nuclei I *Renold C2*
7.00 – 10.00pm	**Icebreaker Reception** *Manchester Town Hall*

Return to Main Menu

Tuesday 26th July

Parallel Sessions

8.30 – 10.00am	Session 13 - Clouds and climate (including radiative properties of clouds) I *Renold C16*
	Session 14 - Ice nuclei and cloud condensation nuclei II *Renold C2*
10.00 - 10.30am	**Coffee Break** *Renold C15*
10.30 - 12.30pm	Session 13 - Clouds and climate (including radiative properties of clouds) II *Renold C16*
	Session 14 - Ice nuclei and cloud condensation nuclei III *Renold C2*
12.30 – 2.00pm	**Linking Lunch** *Barnes Wallis Room*

Posters

2.00 – 3.00pm	Session 13 - Clouds and climate (including radiative properties of clouds) *Renold C15*
	Session 15 - Cloud and precipitation chemistry *Marquee*
	Session 14 - Ice nuclei and cloud condensation nuclei *Marquee*

Parallel Sessions

3.00 - 4.15pm	Session 13 - Clouds and climate (including radiative properties of clouds) III *Renold C16*
	Session 15 - Cloud and precipitation chemistry I *Renold C2*
4.15 - 4.30pm	**Coffee Break** *Renold C15*
4.30 – 6.00pm	Session 13 - Clouds and climate (including radiative properties of clouds) IV *Renold C16*
	Session 15 - Cloud and precipitation chemistry II *Renold C2*
6.00 – 8.00pm	**Manchester University – Centre for Atmospheric Science (CAS) - Lab Tours**

Return to Main Menu

Wednesday 27th July

Parallel Sessions

8.30 – 10,00am	Session 7 - Entrainment and mixing I *Renold C2* Session 8 - Mid-latitude cloud systems I *Renold C16*
10.00 - 10.30am	**Coffee Break** *Renold C15*
10.30 - 12.30pm	Session 7 - Entrainment and mixing II *Renold C2* Session 8 - Mid-latitude cloud systems II *Renold C16*
12.30 - 1.30pm	**Lunch** *Barnes Wallis Room*

Posters

1.30 – 3.00pm	Session 10 - Polar clouds and cloud systems *Renold C15* Session 7 - Entrainment and mixing *Renold C15* Session 12 - Aerosol-cloud-precipitation-interactions and processing *Marquee* Session 11 - Secondary ice production *Marquee* Session 6 - Cloud electrification *Marquee* Session 8 - Mid-latitude cloud systems *Marquee*

Parallel Sessions

3.00 - 4.15pm	Session 12 - Aerosol-cloud-precipitation-interactions and processing I *Renold C16* Session 10 - Polar clouds and cloud systems I *Renold C2*
4.15 - 4.30pm	**Coffee Break** *Renold C15*
4.30 – 6.00pm	Session 12 - Aerosol-cloud-precipitation-interactions and processing II *Renold C16* Session 10 - Polar clouds and cloud systems II *Renold C2*
6.00 – 9.00pm	**ICCP Business Meeting II** *MMP Room 4/5*

Return to Main Menu

Thursday 28th July

Parallel Sessions

8.30 – 10.00am	Session 2 - Warm boundary layer clouds I *Renold C16*
	Session 3 - Convective clouds I *Renold C2*
10.00 - 10.30am	**Coffee Break** *Renold C15*
10.30 - 12.30pm	Session 2 - Warm boundary layer clouds II *Renold C16*
	Session 3 - Convective clouds II *Renold C2*
12.30 - 1.30pm	**Lunch** *Barnes Wallis Room*

Posters

1.30 – 3.00pm	Session 3 - Convective clouds *Renold C15*
	Session 2 - Warm boundary layer clouds *Marquee*
	Session 5 - Cirrus clouds *Marquee*
	Session 9 - Tropical clouds and cloud systems *Marquee*

Parallel Sessions

3.00 - 4.15pm	Session 2 - Warm boundary layer clouds III *Renold C15*
	Session 5 - Cirrus clouds I *Renold C2*
4.15 - 4.30pm	**Coffee Break** *Renold C15*
4.30 - 5.45pm	Session 2 - Warm boundary layer clouds IV *Renold C16*
	Session 5 - Cirrus clouds II *Renold C2*
7.30 – 11.00pm	**Conference Dinner** *Manchester United Football Club*

[Return to Main Menu]

Friday 29th July

Parallel Sessions

8.30 – 10.00am	Session 6 - Cloud electrification *Renold C16*
	Session 4 - Mixed phase clouds I *Renold C2*
9.45 – 10.00am	Session 9 - Tropical clouds and cloud systems I *Renold C16*
10.00 - 10.30am	**Coffee Break** *Renold C15*
10.30 - 12.30pm	Session 9 - Tropical clouds and cloud systems II *Renold C16*
10.30 – 12.00pm	Session 4 - Mixed phase clouds II *Renold C2*
12.00 - 12.30pm	Session 11 - Secondary ice production I *Renold C2*
12.30 - 1.30pm	**Lunch** *Barnes Wallis Room*
1.30 - 3.15pm	Session 9 - Tropical clouds and cloud systems III *Renold C16*
	Session 11 - Secondary ice production II *Renold C2*
3.15 - 3.30pm	**Concluding remarks of ICCP 2016** *Renold C16*

Return to Main Menu

Oral Sessions:

Session 18 - Mason

Monday 25th July, 9.00 – 10.00am
Renold C16

S18.1 Nigel Mason
09:00

S18.2 John Latham
09:15

S18.3 Anthony Illingworth
09:30

S18.4 Development of a Cloud Physics Family Tree
Greg McFarquhar*[1,2], Robert Hart[3], John Cossuth[4], Cindy Twohy[5]
[1]University of Illinois, USA, [2]National Center for Atmospheric Research, USA, [3]Florida State University, USA, [4]Naval Research Laboratory, USA, [5]NorthWest Research Associates, USA
09:45

Return to Main Menu

Session 1 - Basic cloud and precipitation physics I

Parallel Sessions, 10.30am - 12.30pm, Monday July 25th
Renold C16

S1.1 Large Eddy Simulations of the impact of shear-driven turbulence on snow growth
Bart Geerts[1], Xia Chu[1], Lulin Xue*[2]
[1]University of Wyoming, USA, [2]NCAR, USA
10:30

S1.2 Omitted turbulent mechanism leading to preferential concentration in clouds
Katarzyna Karpinska*, Szymon P. Malinowski
Faculty of Physics, University of Warsaw, Poland
10:45

S1.3 Turbulence enhancement of cloud droplet collisions: how does the droplet size distribution evolve in turbulent clouds?
Sisi Chen*, M.K. Yau, Peter Bartello
McGill University, Canada
11:00

S1.4 Drop-droplet collisions observed with holography in a vertical laminar flow
Anna Gorska*[1,2], Jacob Fugal[1,3], Subir Mitra[3], Szymon Malinowski[2,3], Stephan Borrmann[1,3]
[1]Max Planck Institute for Chemistry, Germany, [2]Institute of Geophysics, Faculty of Physics, University of Warsaw, Poland, [3]Institute of Atmospheric Physics, Johannes Gutenberg University, Germany
11:15

S1.5 Retrieval of binned rain drop size distributions profiles from multi-frequency radar observations: potential for fingerprinting rain microphysics processes
Frederic Tridon*[1], Alessandro Battaglia[1,2]
[1]Department of Physics and Astronomy, University of Leicester, UK, [2]National Center Earth Observation, University of Leicester, UK
11:30

S1.6 Use of 3D-printed analogues to investigate the fall speed and orientation of natural ice particles
Chris Westbrook
University of Reading, UK
11:45

S1.7 Effective terminal velocity as a measure for the coupling between cloud microphysics and dynamics
Ilan Koren*[1], Orit Altaratz[1], Guy Dagan[1], Reuven Heiblum[1], Qian Chen[1], Zev Levin[2]
[1]Weizmann Institute of Science, Israel, [2]Tel Aviv University, Israel
12:00

S1.8 Cumulus precipitation and the development of the boundary layer
Huiwen Xue*[1], Guoxing Chen[2]
[1]Peking University, China, [2]University at Albany, State University of New York, USA
12:15

Return to Main Menu

Session 1 - Basic cloud and precipitation physics II

Parallel Sessions, 3.00- 4.15pm, Monday July 25th
Renold C16

S1.9 Homogeneous nucleation in supercooled cloud droplets
Ben Murray*[1], James Atkinson[1,2], Steven Dobbie[1], Ross Herbert[1], Thomas Koop[3], Daniel O'Sullivan[1]
[1]University of Leeds, UK, [2]ETH, Switzerland, [3]Bielefeld University, UK
15:00

S1.10 Supercooled Cloud Tunnel Studies on the Growth Conditions of Branched Planar Snow Crystals: The Influence of Crystal Growth Time
Tsuneya Takahashi
Hokkaido University of Education, Japan
15:15

S1.11 The effectiveness of spectral bin schemes in simulating ice cloud particle size distributions and their variability
Wei Wu*[1,2], Greg McFarquhar[1,2], Lulin Xue[2], Hugh Morrison[2], Wojciech Grabowski[2]
[1]University of Illinois at Urbana Champaign, USA, [2]National Center for Atmospheric Research, USA
15:30

S1.12 The effect of ice particles growth rates in convective clouds
Paul Connolly*[1], Christopher Westbrook[2], Junshik Um[3], Karina Mccusker[2]
[1]University of Manchester, UK, [2]University of Reading, UK, [3]University of Illinois, USA
15:45

S1.13 Simulations of Radar Reflectivity Factors at 94GHz: Ice Crystal Approximation with Oblate Spheroids
Emmanuel Fontaine[1], Delphine Leroy[1], Alfons Schwarzenboeck*[1], Pierre Coutris[1], Julien Delanoë[2], Alain Protat[3], Fabien Dezitter[4], Alice Calmels[4], Walter Strapp[5], Lyle Lilie[6]
[1]UBP/ CNRS / LaMP, France, [2]UVSQ / CNRS / LATMOS, France, [3]CAWC / BOM, Australia, [4]AIRBUS, France, [5]Met Analytics, Canada, [6]Science Engineering Associates, USA
16:00

S1.14 Measurements of vapor growth and sublimation of individually levitated ice particles below -30°C
Marcus Hanson*, Alfred Moyle, Jerry Harrington
The Pennsylvania State University, USA
16:15

Return to Main Menu

Session 1 - Basic cloud and precipitation physics III

Parallel Sessions, 4.45 – 6.00pm, Monday July 25th
Renold C16

S1.15 Developing an advanced categorization scheme for autoconversion using new observables from ground based observations.
Claudia Acquistapace*[1], Ulrich Löhnert[1], Max Maahn[1], Stefan Kneifel[1], Pavlos Kollias[2]
[1]Institute for Geophysics and Meteorology, Germany, [2]McGill University, Canada
16:45

S1.16 Wind tunnel studies on formation and growth processes of atmospheric ice particles
Miklós Szakáll*[1], Alexander Jost[2], Oliver Eppers[1,2], Amelie Mayer[1], Karoline Diehl[1], Subir Mitra[2], Stephan Borrmann[1,2]
[1]University of Mainz, Germany, [2]Max Planck Institute for Chemistry, Germany
17:00

S1.17 Does the shape of the assumed raindrop size distribution matter in convection?
Sean Freeman*, Susan van den Heever, Adele Igel
Colorado State University, USA
17:15

S1.18 Exploring the diabatic role of ice microphysical processes in two North Atlantic summer cyclones
Christopher Dearden*[1], Geraint Vaughan[1], Tzu-Chin Tsai[2], Jen-Ping Chen[2]
[1]University of Manchester, UK, [2]National Taiwan University, Taiwan
17:30

S1.19 Cloud Droplet Growth and Drizzle Formation in a Turbulent Laboratory Cloud
W. Cantrell, K. Chandrakar, K. Chang, D. Ciochetto, D. Niedermeier, R. Shaw*, F. Yang
Michigan Technological University, USA
17:45

Return to Main Menu

Session 2 - Warm boundary layer clouds I

Parallel Sessions, 8.30 – 10.00am, Thursday July 28th
Renold C16

S2.1 Shallow Marine Cloud Droplet Distributions: In-Situ Field Campaign Observations and Model Parameterization Comparison
Alison Nugent*, Jorgen Jensen
NCAR, USA
08:30

S2.2 Design and evaluation of a large-eddy simulator with a novel description of aerosol-cloud interactions using a sectional framework
Juha Tonttila*[1], Sami Romakkaniemi[1], Harri Kokkola[1], Hannele Korhonen[2], Zubair Maalick[3], Thomas Kühn[1,3]
[1]Finnish Meteorological Institute, Atmospheric Research Centre of Eastern Finland, Finland, [2]Finnish Meteorological Institute, Finland, [3]University of Easter Finland, Dept. of Applied Physics, Finland
08:45

S2.3 Drizzle and non-drizzle cloud regimes observed over the northwestern Pacific in summer: Aerosol-cloud-precipitation interactions
Makoto Koike*[1], M. Mitamura[1], N. Moteki[1], H. Nakamura[1], H. Miura[1], N. Takegawa[2], K. Kita[3]
[1]University of Tokyo, Japan, [2]Tokyo Metropolitan University, Japan, [3]Ibaraki University, Japan
09:00

S2.4 Identifying Meteorological Controls on Open and Closed Mesoscale Cellular Convection as Associated with Marine Cold Air Outbreaks
Isabel McCoy*, Robert Wood
University of Washington, USA
09:15

S2.5 Modulation of stratocumulus to cumulus transition by rain
Takanobu Yamaguchi*[1,2], Graham Feingold[2], Jan Kazil[1,2]
[1]CIRES, University of Colorado, USA, [2]NOAA ESRL, USA
09:30

S2.6 Ultra-clean Layers and Low Albedo Clouds in the Marine Boundary Layer
Robert Wood*[1], Paquita Zuidema[2], Chris Bretherton[1], Bruce Albrecht[2], Virendra Ghate[3], Mampi Sarkar[2], Susanne Glienke[4], Johannes Mohrmann[1], Raymond Shaw[4], Jacob Fugal[5]
[1]University of Washington, USA, [2]University of Miami, USA, [3]Argonne National Lab, USA, [4]Michigan Technological University, USA, [5]Mainz University, Germany
09:45

Return to Main Menu

Session 2 - Warm boundary layer clouds II

Parallel Sessions, 10.30am - 12.30pm, Thursday July 28th
Renold C16

S2.7 Turbulent enhancement of collision-coalescene processes in large-eddy simulations of trade wind cumulus clouds
Axel Seifert*[1], Ryo Onishi[2]
[1]Deutscher Wetterdienst, Germany, [2]Center for Earth Information Science and Technology, Japan Agency for Marine-Earth Science and Technology, Japan
10:30

S2.8 Relationship Between Turbulence and Drizzle Onset and Growth in Low-level Continental and Marine Stratiform Clouds Using ARM Observations
Edward Luke*[1], Paloma Borque[3], Wanda Szyrmer[3], Pavlos Kollias[2,1]
[1]Brookhaven National Lab, USA, [2]Stony Brook University, USA, [3]McGill University, Canada
10:45

S2.9 Giant aerosols vs turbulent collision enhancement in marine stratocumuli.
Piotr Dziekan*[1], Jorgen Jensen[2], Anna Jaruga[1], Hanna Pawlowska[1]
[1]Institute of Geophysics, Faculty of Physics, University of Warsaw, Poland, [2]Earth Observation Laboratory, National Center for Atmospheric Research, USA
11:00

S2.10 Turbulence-microphysics feedbacks in LES of marine stratocumulus
Mikael Witte*[1], Patrick Chuang[1], Orlando Ayala[3,2], Lian-Ping Wang[2]
[1]University of California Santa Cruz, USA, [2]University of Delaware, USA, [3]Old Dominion University, USA
11:15

S2.11 Marine stratocumulus: Variability in Precipitation Rate Caused by Variability in Giant Sea-Salt Size Distributions (GCCN)
Jorgen Jensen*, Alison Nugent
NCAR Earth Observation Laboratory, USA
11:30

S2.12 Recirculation and growth of raindrops in simulated shallow cumulus
Ann Kristin Naumann*[1], Axel Seifert[2]
[1]Max Planck Institute for Meteorology, Germany, [2]Deutscher Wetterdienst, Germany
11:45

S2.13 Stratocumulus precipitation from long-resident droplets
Alberto de Lozar
Max Planck Institute for Meteorology, Germany
12:00

S2.14 Drizzle Production in Stratocumulus-topped Boundary Layers
Pavlos Kollias*[1,3], Edward Luke[2], Wanda Szyrmer[3]
[1]Stony Brook University, USA, [2]Brookhaven National Laboratory, USA, [3]McGill University, Canada
12:!5

Return to Main Menu

Session 2 - Warm boundary layer clouds III

Parallel Sessions, 3.00 - 4.15pm, Thursday July 28th
Renold C15

S2.15 The microscale dynamics of warm fog layer in the Ganges Valley
Anandakumar Karipot[1], Subharthi Chowdhuri[2], P Murugavel[2], Thara Prabha*[2]
[1]SP Pune university, India, [2]Indian Institute of Tropical Meteorology, India
15:00

S2.16 The effect of aerosol on radiation fog life-cycle
Sami Romakkaniemi*[1], Zubair Maalick[2], Juha Tonttila[1], Ari Laaksonen[3], Harri Kokkola[1], Thomas Kuhn[1,2]
[1]Finnish Meteorological Institute, Finland, [2]University of Eastern Finland, Finland, [3]Finnish Meteorological Institute, Finland
15:15

S2.17 An overview of the LANFEX, (Local and Non-local Fog EXperiment) observational campaign.
Amanda Kerr-Munslow*, Jeremy Price, Siân Lane, Bernard Claxton, Simon Osborne
Met Office, UK
15:30

S2.18 Improving high-resolution fog simulations using LANFEX observations
Ian Boutle*, Adrian Lock, Jeremy Price
Met Office, UK
15:45

S2.19 Elucidating the processes responsible for radiation fog formation during the LANFEX fog campaign.
Jeremy Price
Met Office, UK
16:00

Return to Main Menu

Session 2 - Warm boundary layer clouds IV

Parallel Sessions, 4.30 - 5.45pm, Thursday July 28th
Renold C16

S2.20 Mid boundary layer humidity pockets as the formation mechanism of small warm clouds
Eitan Hirsch[1,2], Orit Altaratz*[1], Ilan Koren[1], Zev Levin[3], Eyal Agassi[2]
[1]The Weizmann Institute of Science, Israel, [2]Israel Institute for Biological Research, Israel, [3]Tel-Aviv University, Israel
16:30

S2.21 How shallow convection in drier subsiding atmospheres supports deeper trade-wind layers and more precipitation
Raphaela Vogel*[1], Louise Nuijens[2], Bjorn Stevens[1]
[1]Max Planck Institute of Meteorology, Germany, [2]Massachusetts Institute of Technology, USA
16:45

S2.22 Impacts of cloud microphysical schemes on precipitation of shallow warm clouds
Naomi Kuba*[1], Kentaroh Suzuki[1], Masaki Satoh[1,2], Tatsuya Seiki[2], Roh Woosub[1]
[1]Atmosphere and Ocean Research Institute, Japan, [2]Research Institute for Global Change, Japan Agency for Marine-Earth Science and Technology, Japan
17:00

S2.23 Overlap statistics of shallow boundary layer clouds: Comparing ground-based observations with large-eddy simulations.
Gabriele Corbetta[1], Emiliano Orlandi[1], Thijs Heus[2], Roel Neggers[1], Susanne Crewell[1], Kerstin Ebell*[1]
[1]Institute for Geophysics and Meteorology, University of Cologne, Germany, [2]Department of Physics, Cleveland State University, USA, [3]RPG Radiometer Physics GmbH, Germany
17:15

S2.24 Attaining Low Horizontal Variability of Effective Radius in Stratocumulus Clouds
Leehi Magaritz-Ronen*, Mark Pinsky, Alexander Khain
The Hebrew University of Jerusalem, Israel
17:30

Return to Main Menu

Session 3 - Convective clouds I

Parallel Sessions, 8.30 – 10.00am, Thursday July 28th
Renold C2

S3.1 The microphysics and kinematics of a potential flash flood on 3 August2013 during COPE
Alan Blyth*[1], Yahui Huang[2], Lindsay Bennett[1], Keith Browning[2], Sonia Lasher-Trapp[3], David Leon[4], Jeff French[4], Tom Choularton[5], Phil Brown[6], Humphrey Lean[7]
[1]National Centre for Atmospheric Science, University of Leeds, UK, [2]University of Leeds, UK, [3]University of Illinois, USA, [4]University of Wyoming, USA, [5]University of Manchester, UK, [6]Met Office, UK, [7]Met Office, UK
08:30

S3.2 Ice formation in convective clouds over southwest England
Jonathan Taylor*[1], Tom Choularton[1], Alan Blyth[2], Zixia Liu[1], Keith Bower[1], Jonathan Crosier[1,3], Martin Gallagher[1], Paul Williams[1,3], James Dorsey[1,3], Michael Flynn[1], Gillian Young[1], Lindsay Bennett[2], Yahui Huang[2], Phil Rosenberg[2], Jeff French[4], Alexei Korolev[5], Phil Brown[6]
[1]Centre for Atmospheric Science, University of Manchester, UK, [2]National Centre for Atmospheric Science, University of Leeds, UK, [3]National Centre for Atmospheric Science, University of Manchester, UK, [4]Department of Atmospheric Science, University of Wyoming, USA, [5]Cloud Physics and Severe Weather Research Section, Environment Canada, Canada, [6]Met Office, UK
08:45

S3.3 Microphysical Structure of Elevated Convection in Winter Cyclones
Amanda Murphy*[1], Robert Rauber[1], Greg McFarquhar[1], Brian Jewett[1], David Plummer[1,2], Joseph Finlon[1], Andrew Rosenow[1]
[1]Department of Atmospheric Sciences, University of Illinois at Urbana-Champaign, USA, [2]Department of Atmospheric Science, University of Wyoming, USA
09:00

S3.4 Microphysical implications of convection, turbulence, generating cells and other fine scale structures within a cyclone along the U.S. Northeast Coast: a first look at high resolution HIAPER Cloud Radar Observations
Robert Rauber*[1], Scott Ellis[2], Andrew Janiszeski[1], J Vivekanandan[2], Jeffrey Stith[2], Wen-Chau Lee[2], Greg McFarquhar[1], Brian Jewett[1]
[1]University of Illinois, USA, [2]National Center for Atmospheric Research, USA
09:15

S3.5 The microphysical properties and radiative consequences of frozen droplets in the upper regions of convective storms
Jeffrey Stith*[1], Greg McFarquhar[2], Junshik Um[2]
[1]National Center for Atmospheric Research, USA, [2]University of Illinois at Urbana-Champaign, USA
09:30

S3.6 Graupel and hail properties retrieval in supercells thunderstorms from airborne multifrequency radar and radiometer observations
Alessandro Battaglia*[1,2], Frederic Tridon[1], Kamil Mroz[1], Simone Tanelli[3], Tim Lang[4], Gerry Heymsfield[5], Lin Tian[5]
[1]Department of Physics and Astronomy, University of Leicester, UK, [2]National Center Earth Observation, University of Leicester, UK, [3]Jet Propulsion Laboratory, California Institute of Technology, USA, [4]NASA Marshall Space Flight Center, USA, [5]NASA Goddard Space Flight Center, USA
09:45

Return to Main Menu

Session 3 - Convective clouds II

Parallel Sessions, 10.30am - 12.30pm, Thursday July 28th
Renold C2

S3.7 How are changes in warm phase microphysics reflected in deep convective clouds?
Qian Chen*, Ilan Koren, Orit Altaratz, Reuven Heiblum, Guy Dagan, Lital Pinto
Weizmann Institute of Science, Israel
10:30

S3.8 Aerosol-cloud interaction signal in a meteorological ensemble of convective precipitation from COPE
Annette Miltenberger*[1], Paul Field[1,2], Philip Rosenberg[1], Adrian Hill[2], Ben Shipway[1], Jonathan Wilkinson[2], Alan Blyth[1]
[1]University of Leeds, UK, [2]MetOffice, UK
10:45

S3.9 Storm Transport of Dust from the Boundary Layer to Upper Troposphere
Susan van den Heever*[1], Leah Grant[1], Stephen Herbener[1], Amanda Sheffield[1], Stephen Saleeby[1], Cynthia Twohy[2], Kathryn Sauter[3], Tristan L'Ecuyer[3], Catherine Naud[4], Derek Posselt[5]
[1]Colorado State University, USA, [2]NorthWest Research Associates, USA, [3]University of Wisconsin - Madison, USA, [4]Columbia University, USA, [5]University of Michigan, USA
11:00

S3.10 Toward a PDF representation of deep convection: the importance and parameterization of hydrometeor transport
Mikhail Ovchinnikov*[1], May Wong[2]
[1]Pacific Northwest National Laboratory, USA, [2]National Center for Atmospheric Research, USA
11:15

S3.11 Center-of-gravity vs. mass phase space - an efficient approach for analyzing interactions and key processes in cloud fields
Reuven H. Heiblum*[1], Orit Altaratz[1], Ilan Koren[1], Graham Feingold[2], Alexander Kostinski[3], Alexander Khain[4], Mikhail Ovchinnikov[5], Erick Fredj[1,6], Guy Dagan[1], Lital Pinto[1], Ricki Yaish[1], Qian Chen[1]
[1]Department of Earth and Planetary Sciences, Weizmann Institute of Science, Israel, [2]NOAA Earth System Research Laboratory (ESRL), Chemical Sciences Division, USA, [3]Department of Physics, Michigan Technological University, USA, [4]The Institute of the Earth Science, Hebrew University of Jerusalem, Israel, [5]Atmosphere Science and Global Change Division, Pacific Northwest National Laboratory, USA, [6](Jerusalem College of Technology, Israel
11:30

S3.12 Controls on the Characteristics of Convective Clouds Associated with Sea Breeze Circulations
Adele L Igel*[1], Jungmin Park[1], Jill S Johnson[2], Susan C van den Heever[1], Ken S Carslaw[2]
[1]Colorado State University, USA, [2]University of Leeds, UK
11:45

S3.13 Assessing Clausius-Clapeyron scaling of moist convection over land within an idealized convection-resolving modeling framework
Linda Schlemmer*, Christoph Schär
Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland
12:00

S3.14 Dynamical Influences on Cold Pool Development
George Bryan
National Center for Atmospheric Research, USA
12:15

Return to Main Menu

Session 4 - Mixed phase clouds I

Parallel Sessions, 8.30 – 10.00am, Friday July 29th
Renold C2

S4.1 Microphysical cloud properties and cloud probes' benchmark during the Pallas Cloud Experiments (PaCE).
Konstantinos Doulgeris*[1], Ari Leskinen[2], Mika Komppula[2], David Brus[1]
[1]Finnish Meteorological Institute, Finland, [2]Finnish Meteorological Institute, Finland
08:30

S4.2 Liquid water content and effective radius retrievals in mixed-phase cloud layers from Cloud radar data based on the forward modeling
Yujun Qiu*[1], Tom Choularton[2], Jonny Crosier[2]
[1]Key Laboratory for Aerosol-Cloud-Precipitation of China Meteorological Administration, Nanjing University of Information Science & Technology, China, [2]Centre for Atmospheric Science, SEAES,University of Manchester, UK
08:45

S4.3 Aircraft Observations of Liquid and Ice in Midlatitude Mixed-Phase Clouds
Zhen Zhao*, Heng-chi Lei
Institute of Atmospheric Physics,Chinese Academy of Sciences, China
09:00

S4.4 Vertical profiles of cloud properties measured with a holographic imager on a cable car
Alexander Beck*, Jan Henneberger, Zamin A. Kanji, Ulrike Lohmann
Institute of Atmospheric and Climate Science, ETH Zurich, Switzerland
09:15

S4.5 A detailed examination of the microphysical processes leading to ice production within an orographic wintertime cloud with freezing drizzle
Jeffrey French*[1], Sarah Tessendorf[2], Darcy Jacobson[1], Roy Rasmussen[2], Bart Geerts[1], Binod Pokharel[1], Lulin Xue[1], Pat Holbrook[3], Mel Kunkel[3], Derek Blestrud[3], Shaun Parkinson[3]
[1]University of Wyoming, USA, [2]NCAR/RAL, USA, [3]Idaho Power Company, USA
09:30

S4.6 In-situ airborne observations of small ice in turbulent mixed phase altocumulus clouds.
Paul Barrett*[1,2], Alan Blyth[2,3], Philip R. A. Brown[1], Zbigniew Ulanowski[4]
[1]Met Office, UK, [2]University of Leeds School of Earth and Environment, Institute for Climate and Atmospheric Science, UK, [3]National Centre for Atmospheric Science, University of Leeds, UK, [4]Centre for Atmospheric and Instrumentation Research, University of Hertfordshire, UK
09:45

Return to Main Menu

Session 4 - Mixed phase clouds II

Parallel Sessions, 10.30am - 12pm, Friday July 29th
Renold C2

S4.7 In situ and radar Doppler spectrum constraints of ice sticking efficiency and ice properties in a mid-latitude squall line
Marcus van Lier-Walqui*[1,2], Ann Fridlind[2], Andrew Ackerman[2], Christopher Williams[3], Greg McFarquhar[4], Wei Wu[4], Xiaowen Li[5,6], Wei-Kuo Tao[6], Alexei Korolev[7]
[1]Columbia University, USA, [2]NASA Goddard Institute For Space Studies, USA, [3]University of Colorado, USA, [4]University of Illinois, USA, [5]Morgan State University, USA, [6]NASA Goddard Space Flight Center, USA, [7]Environment Canada, Canada
10:30

S4.8 LIMA: A two-moment microphysical scheme driven by a multimodal population of cloud condensation and ice freezing nuclei
Jean-Pierre Pinty*[1], Benoît Vié[2], Sarah Berthet[3], Maud Leriche[1]
[1]Laboratoire d'Aérologie, UMR5560, CNRS/Université de Toulouse, France, [2]Météo-France, UMR3589, CNRS/Météo-France, France, [3]LEGOS, UMR5566, CNES/CNRS/IRD/Université de Toulouse, France
10:45

S4.9 Microphysics parameterization of explicit partial melting of snow to study the formation of freezing rain and ice pellets
Mélissa Cholette*, Julie M. Thériault
University of Quebec at Montreal, Canada
11:00

S4.10 Effect of Evaporation on Midlatitude Continental Convective Clouds Experiment (MC3E) Melting Layer Simulations
Andrea Neumann*[1], Michael Poellot[1], Andrew Heymsfield[2], Aaron Bansemer[2]
[1]University of North Dakota, USA, [2]National Center for Atmospheric Research, USA
11:15

S4.11 Synthesis of observations and models using a new Bayesian framework for microphysical parameterization
Hugh Morrison[1], Marcus van Lier-Walqui*[2], Matthew Kumjian[3], Olivier Prat[4]
[1]NCAR, USA, [2]Columbia University, USA, [3]Pennsylvania State University, USA, [4]North Carolina State University, USA
11:30

S4.12 Relationship between atmospheric aerosols, hail and polarimetric radar signatures in a mid-latitude storm
Eyal Ilotoviz[1], Alexander Khain*[1], Vaughan Phillips[2], Alexander Ryzhkov[3]
[1]The Hebrew University of Jerusalem, Israel, [2]Lund University, Sweden, [3]University of Oklahoma, USA
11:45

Return to Main Menu

Session 5 - Cirrus clouds I

Parallel Sessions, 3.00 - 4.15pm, Thursday July 28th
Renold C2

S5.1 In-situ Observations of Cirrus Cloud Microphysics during CIRCCREX
Keith Bower*[1], Sebastian O'Shea[1], Thomas Choularton[1], Gary Lloyd[1], Richard Cotton[2], Steve Abel[2], Phillip Brown[2], Jonathan Murray[3], Juliet Pickering[3]
[1]University of Manchester, UK, [2]Met Office, UK, [3]Imperial College, University of London, UK
15:00

S5.2 Reconciliation of in-situ observations and large-scale simulations of mid-latitude cirrus clouds
Christian Rolf*[1], Jens-Uwe Grooß[1], Peter Spichtinger[2], Anja Costa[1], Martina Krämer[1]
[1]Forschungszentrum Jülich, Germany, [2]Institute for Atmospheric Physics, Johannes Gutenberg University of Mainz, Germany
15:15

S5.3 Aircraft-based single particle mass spectrometric analysis of cirrus cloud residues
Johannes Schneider*[1], Stephan Mertes[2], Thomas Klimach[1], Stephan Borrmann[3,1]
[1]Max Planck Institute for Chemistry, Germany, [2]Leibniz Institute for Tropospheric Research, Germany, [3]Johannes Gutenberg University, Germany
15:30

S5.4 Model Application of a new Ice Nucleation Active Surface Site Parameterization for Desert Dust and Soot
Romy Ullrich*[1], Corinna Hoose[1], Ottmar Moehler[1], Daniel J. Cziczo[2], Karl Froyd[3], Bernhard Vogel[1], Heike Vogel[1], Daniel Rieger[1], Tobias Schad[1], Konrad Deetz[1]
[1]Karlsruhe Institute of Technology, Germany, [2]Massachusetts Institute of Technology, USA, [3]NOAA, USA
15:45

S5.5 High Ice Water Content in Cirrus Clouds Linked to Biomass Burning
Graciela Raga*[1], Darrel Baumgardner[2], Mark Parrington[3]
[1]Centro de Ciencias de la Atmosfera, UNAM, Mexico, [2]Droplet Measurement Technologies, USA, [3]ECMWF, UK
16:00

Return to Main Menu

Session 5 - Cirrus clouds II

Parallel Sessions, 4.30 - 5.45pm, Thursday July 28th
Renold C2

S5.6 Aviation effects on already-existing cirrus clouds
Matthias Tesche*[1,3], Peggy Achtert[2,3], Paul Glantz[3], Kevin Noone[3]
[1]University of Hertfordshire, UK, [2]University of Leeds, UK, [3]Stockholm University, Sweden
16:30

S5.7 The Dependence of Cirrus Cloud Formation Mechanism on Latitude, Season and Surface Type
David Mitchell*[1], Anne Garnier[2], Melody Avery[3], Ehsan Erfani[1]
[1]Desert Research Institute, USA, [2]Science Systems and Applications, Inc., USA, [3]NASA Langley Research Center, USA
16:45

S5.8 Vertical Velocity Fluctuations Modulate the Aerosol Indirect Effect on Ice Clouds
Donifan Barahona*, Andrea Molod, William Putman, Max Suarez
NASA Goddard Space Flight Center, USA
17:00

S5.9 The Impact of Surface Kinetic Resistance and Particle Shape on the Competition between Heterogeneous and Homogeneous Freezing in Cirrus.
Jerry Harrington*[1], Marcus Hanson[1], Hugh Morrison[2], Benjamin Sherman[0]
[1]Penn State University, USA, [2]National Center for Atmospheric Research, USA
17:15

S5.10 Cryo-Scanning Electron Microscopy of Captured Cirrus Ice Particles
Nathan Magee*, Katie Boaggio, Lucas Bancroft, Manisha Bandamede, Kevin Hurler
The College of New Jersey, USA
17:30

Return to Main Menu

Session 6 - Cloud electrification

Parallel Sessions, 8.30 – 10.00am, Friday July 29th
Renold C16

S6.1 Diagnosing the development of a severe thunderstorm in the Amazon Region during the 2014 CHUVA/GO-Amazon 2nd IOP Field Campaign
Carlos Augusto Morales*[1], Rachel Albrecht[1], Moacir Lacerda[2]
[1]University of São Paulo, Brazil, [2]University of Mato Grosso do Sul, Brazil
08:30

S6.2 Current Understanding in Cloud Electrification
James E. Dye
NCAR, USA
08:45

S6.3 Cloud-aerosol-precipitation interactions in cloud electrification over the Amazon
Rachel Albrecht*[1], Ramon Braga[2], Carlos Morales[1], Luiz Machado[2], Meinrat Andreae[3], Daniel Rosenfeld[4], Hartmut Höller[5], Manfred Wendisch[6]
[1]Universidade de Sao Paulo, Brazil, [2]Instituto Nacional de Pesquisas Espaciais, Brazil, [3]Max Planck Institute for Chemistry, Germany, [4]Hebrew University of Jerusalem, Israel, [5]German Aerospace Center (DLR), Germany, [6]Universität Leipzig, Germany
09:00

S6.4 First evaluation of the aerosol – microphysics – electrification coupling in the Meso-NH model : lightning activity within a tropical cyclone of the South-West Indian Ocean
Christelle Barthe*[1], Thomas Hoarau[1], Pierre Tulet[1], Jean-Pierre Pinty[2], Christophe Bovalo[2], Marine Claeys[3], Benoît Vié[3]
[1]Laboratoire de l'Atmosphère et des Cyclones (UMR 8105, CNRS / Météo-France / Université de La Réunion), France, [2]Laboratoire d'Aérologie (UMR 5560, CNRS / Université de Toulouse), France, [3]CNRM-GAME (UMR 3589, CNRS / Météo-France), France
09:15

S6.5 Evaluation of thunderstorm forecasts using two microphysics schemes
Jonathan Wilkinson*, Paul Field
Met Office, UK
09:30

Return to Main Menu

Session 7 - Entrainment and mixing I

Parallel Sessions, 8.30 – 10.00am, Wednesday July 27th
Renold C2

S7.1 Airborne Radar and Lidar Observations of Cloud-Environment Interactions, Entrainment, and Drizzle Formation in High CDNC Convective Cloud Complexes
David Leon*[1], Jeffrey French[1]
[1]University of Wyoming, USA, [2]University of Illinois at Urbana-Champaign, USA, [3]National Center for Atmospheric Science, University of Leeds, UK
08:30

S7.2 High-resolution Simulations of Cumulus Entrainment
Sonia Lasher-Trapp*[1], David Leon[2], Daniel Moser[1], Jeff French[2], Alan Blyth[3]
[1]University of Illinois, USA, [2]University of Wyoming, USA, [3]NCAS, School of Earth and Environment, Univ. of Leeds, UK
08:45

S7.3 Entrainment and Dilution Rates of Successive Thermals in a Simulated Cumulus Congestus
Daniel Moser*, Sonia Lasher-Trapp
University of Illinois in Urbana-Champaign, USA
09:00

S7.4 Analysis of homogeneous and inhomogeneous mixing in liquid clouds
Alexei Korolev*[1], Alex Khain[2], Mark Pinsky[2], Jeffrey French[3]
[1]Environment and Clinate Change Canada, Canada, [2]the Hebrew University of Jerusalem, Israel, [3]University of Wyoming, USA
09:15

S7.5 Examination of Entrainment-Mixing Mechanisms in Observed and Simulated Cumuli
Chunsong Lu*[1,2], Yangang Liu[2], Seong Soo Yum[3]
[1]Nanjing University of Information Science and Technology, China, [2]Brookhaven National Laboratory, USA, [3]Yonsei University, Republic of Korea
09:30

S7.6 Investigation of DSD variations in a developing monsoon cloud: Analysis from numerical simulation and field observation
Bipin Kumar*, Sudarsan Bera, Thara Prabhakaran
Indian Institute of Tropical Meteorology, Pune, India
12:15

Return to Main Menu

Session 7 - Entrainment and mixing II

Parallel Sessions, 10.30am - 12.30pm, Wednesday July 27th
Renold C2

S7.7 Impact of cloud microphysics on the phase composition of a tropical mesoscale convective system
Charmaine Franklin*[1], Alain Protat[2]
[1]CSIRO, Australia, [2]Bureau pf Meteorology, Australia
10:30

S7.8 The Effects of Entrainment and Mixing on Droplet Size Distributions: Bridging the DNS-LES Gap
Steven Krueger
University of Utah, USA
10:45

S7.9 Impact of Aerosol Amount on Drop Environments and Mixing Characteristics of Warm Continental Cumulus During GoMACCS
Jennifer Griswold*[1], Patrick Chuang[2]
[1]University of Hawaii at Manoa, USA, [2]University of California - Santa Cruz, USA
11:00

S7.10 Exploring the Interaction Web of Aerosol-Cloud-Precipitation System
Yangang Liu*[1], Jingyi Chen[2], Chunsong Lu[3,1], Shinjae Yoo[1], Yiran Peng[4], Satoshi Endo[1], Wuyin Lin[1]
[1]Brookhaven National Lab, USA, [2]Stony Brook University, USA, [3]Nanjing University of Information and Technology, China, [4]Tsinghua University, China
11:15

S7.11 The role of organic compounds in cloud formation: Relative importance of entrainment, co-condensation and particle-phase properties
Samuel Lowe*[1,2], Daniel Partridge[1,2], David Topping[3,4], Ilona Riipinen[1,2]
[1]Department of Environmental Science and Analytical Chemistry, Stockholm University, Sweden, [2]Bert Bolin Centre for Climate Research, Stockholm University, Sweden, [3]School of Earth Atmospheric and Environmental Science, University of Manchester, UK, [4]National Centre for Atmospheric Science (NCAS), University of Manchester, UK
11:30

S7.12 Impacts of entrainment on the microphysical properties of stratocumulus clouds observed during the Marine Stratus/Stratocumulus Experiment (MASE-II)
Lisa Nyberg*, Daniel Partridge, Johan Ström
Stockholm University, Sweden
11:45

S7.13 Evaporative Cooling and Entrainment in POST Stratocumulus
Hermann Gerber*[1], Szymon P. Malinowski[2], Haflidi Jonsson[3]
[1]Gerber Scientific, Inc., USA, [2]University of Warsaw, Poland, [3]Naval Post-Graduate School, USA
12:00

S7.14 Anisotropic turbulence within a capping inversion: a missing piece in the puzzle of stratocumulus entrainment
Szymon Malinowski*[1], Marta Kopeć[1], Hermann Gerber[2], Djamal Khelif[3], Imai Jen-La Plante[1], Yongfeng Ma[1], Katarzyna Karpińska[1], Katarzyna Nurowska[1], Jesper Pedersen[1], Wojciech Kumala[1]
[1]University of Warsaw, Faculty of Physics, Institute of Geophysics, Poland, [2]Gerber Scientific Inc., USA, [3]Department of Mechanical and Aerospace Engineering, University of California, USA
12:15

Return to Main Menu

Session 8 - Mid-latitude cloud systems I

Parallel Sessions, 8.30 – 10.00am, Wednesday July 27th
Renold C16

S8.1 Microphysical and thermodynamic structure of two nocturnal elevated mesoscale convective systems sampled during the 2015 PECAN project
Daniel M. Stechman*[1], Greg M. McFarquhar[1], Robert M. Rauber[1], Brian F. Jewett[1], Robert A. Black[5], David P. Jorgensen[4], Michael M. Bell[2], Terry J. Schuur[3,6]
[1]University of Illinois at Urbana-Champaign, USA, [2]University of Hawai'i at Mānoa, USA, [3]Cooperative Institute for Mesoscale Meteorological Studies, USA, [4]National Oceanic and Atmospheric Administration/National Severe Storms Laboratory, USA, [5]National Oceanic and Atmospheric Administration/Hurricane Research Division, USA, [6]University of Oklahoma, USA
08:30

S8.2 Investigating the parameterization of graupel density on simulated squall line characteristics
Sarah Tessendorf*[1], Steven Naegele[2], Greg Thompson[1], Kyoko Ikeda[1], Trude Eidhammer[1]
[1]NCAR/RAL, USA, [2]Penn State University, USA
08:45

S8.3 Impacts of mesoscale circulation amplification on simulated squall line precipitation biases
Adam Varble*[1], Hugh Morrison[2], Edward Zipser[1]
[1]University of Utah, USA, [2]NCAR, USA
09:00

S8.4 Impacts of modeling ice particle shape evolution on orographic precipitation and squall-line structure
Anders Jensen*[1], Jerry Harrington[2], Hugh Morrison[3]
[1]NSF/NCAR, USA, [2]The Pennsylvania State University, USA, [3]NCAR, USA
09:15

S8.5 The robustness of cloud model predictions over different aerosol environments.
Jill S Johnson*, Zhiqiang Cui, Lindsay Lee, Ken Carslaw
University of Leeds, UK
09:30

S8.6 Rapid Aggregation of Ice Particles explored using multiple-radar Doppler spectra
Andrew Barrett*, Chris Westbrook, John Nicol, Thorwald Stein
University of Reading, UK
09:45

Return to Main Menu

Session 8 - Mid-latitude cloud systems II

Parallel Sessions, 10.30am - 12.30pm, Wednesday July 27th
Renold C16

S8.7 Increased aerosol concentrations above the PBL impact on MCS stratiform precipitation
Michal Clavner, William Cotton*
Colorado State University, USA
10:30

S8.8 KiD-A intercomparison: How sensitive are microphysics schemes to the representation of aerosol?
Adrian Hill*[1], Zachary Lebo[2]
[1]Met Office, UK, [2]University of Wyoming, USA

S8.9 Validation of the 2-moment microphysical scheme LIMA based on HyMeX microphysical observations
Marie TAUFOUR*[1], Benoît VIE[1], Gaëlle DELAUTIER[1], Jean-Pierre PINTY[2]
[1]CNRM-GAME, France, [2]Laboratoire d'Aérologie, France
11:00

S8.10 Aircraft observations and convection permitting model simulations of cold-air outbreak events
Steven J. Abel*[1], Ian Boutle[1], Keith N. Bower[2], Phillip R. A. Brown[1], Tom Choularton[2], Stuart Fox[1], Gary Lloyd[2], Kirk Waite[1]
[1]Met Office, UK, [2]University of Manchester, UK
11:15

S8.11 Airborne 4-Frequency Radar Measurements of Precipitation and Clouds During IPHEx and RADEX
Gerald Heymsfield*[1], Lin Tian[2,1], Mircea Grecu[2,1], Matthew McLinden[1], Lihua Li[1], Vijay Venkatesh[3]
[1]Goddard Space Flight Center, USA, [2]GESTAR/Goddard Space Flight Center, USA, [3]Science Systems and Applications, USA

S8.12 Constraining precipitation susceptibilities of warm, ice- and mixed-phase clouds with microphysical equations
Franziska Glassmeier*, Ulrike Lohmann
ETH Zurich, Switzerland
11:45

S8.13 Improving fog diagnosis in the Met Office's operational forecast model
Bernard Claxton
Met Office, UK
12:00

S8.14 Implementation of a triple-moment modal parameterization for simulating ice crystal growth habit effects on cloud and precipitation during DIAMET
Jen-Ping Chen*[1], Tzu-Chin Tsai[1], Christopher Dearden[2]
[1]National Taiwan University, Taiwan, [2]University of Manchester, UK
12:15

Return to Main Menu

Session 9 - Tropical clouds and cloud systems I

Parallel Sessions, 9.45 – 10.00am, Friday July 29th
Renold C16

S9.1 Understanding Tropical Cloud Feedback from an Analysis of the Circulation and Stability Regimes Simulated from an Upgraded Multiscale Modeling Framework
Kuan-Man Xu*[1], Anning Cheng[2]
[1]NASA Langley Research Center, USA, [2]NOAA Center for Weather and Climate Prediction (NCWCP), USA
09:45

Return to Main Menu

Session 9 - Tropical clouds and cloud systems II

Parallel Sessions, 10.30am - 12.30pm, Friday July 29th
Renold C16

S9.2 HAIC/HIWC field project: ice crystal mass-size relationship in high ice water content cloud conditions
Delphine Leroy[1], Pierre Coutris[1], Emmanuel Fontaine[1], Alfons Schwarzenboeck*[1], J. Walter Strapp[2], Alexei Korolev[3], Greg McFarquhar[4], Christophe Gourbeyre[1], Regis Dupuy[1], Fabien Dezitter[5], Alice Calmels[5]
[1]LaMP -CNRS/UBP-, France, [2]Met Analytics, Inc., Canada, [3]Environment Canada, Canada, [4]University of Illinois, USA, [5]Airbus Operation SAS, France
10:30

S9.3 On the vertical structure of IWC and 3D wind in deep tropical convection observed during the HIWC-HAIC-experiment at Darwin: a comparison of small scale, bin resolved cloud modeling with airborne cloud radar observations
Wolfram Wobrock*[1], Julien Delanoë[2]
[1]Laboratoire de Météorologie Physique, Clermont Université, France, [2]Laboratoire Atmosphère, Milieux, Observations Spatiales, France
10:45

S9.4 Ice Particle Initiation and Development in Tropical Convective Clouds around the Cape Verde Archipelago
Jonathan Crosier*[1], Gary Lloyd[1], Thomas Choularton[1], Martin Gallagher[1], Keith Bower[1], Michael Flynn[1], Jonathan Taylor[1], Alan Blyth[3], Paul Field[2], Richard Cotton[2]
[1]University of Manchester, UK, [2]Met Office, UK, [3]University of Leeds, UK
11:00

S9.5 Effects of microphysical processes on the aggregation of convective clouds and the evolution to a tropical cyclone
Tetsuya Takemi
Disaster Prevention Research Institute, Kyoto University, Japan
11:15

S9.6 Observed relationships between cloud vertical structure and convective aggregation over tropical ocean
Thorwald Stein*[1], Chris Holloway[1], Isabelle Tobin[2], Sandrine Bony[3]
[1]University of Reading, UK, [2]LSCE/IPSL/CNRS, France, [3]LMD, ISPL, CNRS, France
11:30

S9.7 Lagrangian and Eulerian Evolutions of the Tropical Column Humidity-Precipitation Relationship
Matthew Igel
University of Miami, USA
11:45

S9.8 Processes controlling the diurnal cycle of moist convection in the West African Sahel
Miroslav Provod*, John Marsham, Douglas Parker
University of Leeds, UK
12:00

S9.9 Do deep convective water budgets change in a warmer climate?
Rachel Storer*[1,2], Graeme Stephens[1,2], Susan van den Heever[1]
[1]Colorado State University, USA, [2]Jet Propulsion Laboratory, USA
12:15

Return to Main Menu

Session 9 - Tropical clouds and cloud systems III

Parallel Sessions, 1.30 - 3.15pm, Friday July 29th
Renold C16

S9.11 An integrated view of aerosol effects on convection
Philip Stier*, Sarah Taylor, Bethan White, Zak Kipling, Laurent Labbouz, Max Heikenfeld
Department of Physics, University of Oxford, UK
13:45

S9.12 Quantifying aerosol effects on deep convection throughout the cloud lifecycle in high-resolution simulations over the Amazon and Congo basin
Bethan White*, Philip Stier, Max Heikenfeld
University of Oxford, UK
14:00

S9.13 Biomass Burning Aerosol Detection in Near Real-Time: An algorithm to aid mission planning in the field
Michael Diamond*, Rob Wood
University of Washington, USA
14:15

S9.14 Microphysical Properties of TTL Cirrus
Sarah Woods*[1], Paul Lawson[1], Eric Jensen[2], Paul Bui[2], Troy Thornberry[3], Andrew Rollins[3]
[1]SPEC, Inc., USA, [2]NASA Ames Research Center, USA, [3]NOAA ESRL/CIRES, USA
14:30

S9.15 Characterization of ice particles in TTL cirrus using 2D light scattering
Zbigniew Ulanowski*[1], Paul Kaye[1], Edwin Hirst[1], Chris Stopford[1], Eric Jensen[2], James Dorsey[3], Richard Greenaway[1], Georg Ritter[1], Evelyn Hesse[1], Troy Thornberry[4], Andrew Rollins[4], Neil Harris[5], Martin Gallagher[3], Sarah Woods[6], Paul Lawson[6]
[1]University of Hertfordshire, UK, [2]NASA Ames Research Center, USA, [3]University of Manchester, UK, [4]NOAA ESRL Chemical Sciences Division, USA, [5]University of Cambridge, UK, [6]SPEC Inc., USA
14:45

S9.16 Bimodality and variability of particle size distributions in high Ice Water Content regions and their relation to cloud and meteorological conditions
Shichu Zhu*[1], Greg M McFarquhar[1], Delphine Leroy[2], Alexei Korolev[3], Alfons Schwarzenboeck[2], Wei Wu[1], Walter Strapp[4]
[1]1University of Illinois, USA, [2]CNRS/Université Blaise Pascal, France, [3]Environment Canada (EC), Canada, [4]Met Analytics Inc, Canada
15:00

Return to Main Menu

Session 10 - Polar clouds and cloud systems I

Parallel Sessions, 3.00 - 4.15pm, Wednesday July 27th
Renold C2

S10.1 Airborne observations of Antarctic clouds during the 2015 MAC field campaign
Sebastian O'Shea*[1], Tom Choularton[1], Michael Flynn[1], Keith Bower[1], Constantino Listowski[2], Amélie Kirchgaessner[2], Russell Ladkin[2], Tom Lachlan-Cope[2]
[1]University of Manchester, UK, [2]British Antarctic Survey, UK
15:00

S10.2 In-situ observations of "warm ice" over the Southern Ocean
Yi Huang[1,2], Thomas Chubb[3], Steven Siems*[1,2], Michael Manton[1], Eunmi Ahn[1], Mark DeHoog[4]
[1]Monash University, Australia, [2]Australian Research Council (ARC) Centre of Excellence for Climate System Science, Australia, [3]Snowy Hydro Ltd, Australia, [4]Hydro Tasmania Ltd, Australia
15:15

S10.3 In-situ observations of the effect of precipitation on wintertime low-altitude clouds over the Southern Ocean
Eunmi Ahn*[1], Yi Huang[1], Thomas Chubb[2], Steven Siems[1], Michael Manton[1]
[1]Monash University, Australia, [2]Snowy Hydro, Australia
15:30

S10.4 What is the role of sea surface temperature in modulating cloud and precipitation properties over the Southern Ocean?
Yi Huang*[1], Steve Siems[1], Michael Manton[1], Daniel Rosenfeld[2], Roger Marchand[3], Greg McFarquhar[4], Alain Protat[5]
[1]Monash University, Australia, [2]Hebrew University, Israel, [3]University of Washington, USA, [4]University of Illinois, USA, [5]Australian Bureau of Meteorology, Australia
15:45

S10.5 A newly identified sea salt aerosol source over sea ice - modeling vs observation
Xin Yang*[1], Markus Frey[1], Sarah Norris[2], Ian Brooks[2], Philip Anderson[3], Anna Jones[1], Eric Wolff[4], Michel Legrand[5]
[1]British Antarctic Survey, UK, [2]School of Earth and Environment, University of Leeds, UK, [3]Scottish Association for Marine Science, UK, [4]Department of Earth Science, University of Cambridge, UK, [5]Laboratoire de Glaciologie et Géophysique de l'Environnement, France
16:00

Return to Main Menu

Session 10 - Polar clouds and cloud systems II

Parallel Sessions, 4.30 – 6.00pm, Wednesday July 27th
Renold C2

S10.6 Satellite Insights into the Influence of Mixed-Phase Clouds on the Arctic Climate
Tristan L'Ecuyer*[1], Elin McIlhattan[1], Kristof van Tricht[3], Jennifer Kay[2], Norman Wood[1]
[1]University of Wisconsin, USA, [2]University of Colorado, USA, [3]KU Leuven, Belgium
16:30

S10.7 Characterization of Arctic mixed phase clouds at regional and small scales
Olivier Jourdan*[1], Guillaume Mioche[1], Julien Delanoë[2], Christophe Gourbeyre[1], Régis Dupuy[1], Alfons Schwarzenböck[1]
[1]LaMP, Université Blaise Pascal, France, [2]LATMOS, Université Versailles-St Quentin, France
16:45

S10.8 Aircraft observations of arctic stratus clouds and clouds in arctic air outbreaks over the sea
G. Lloyd[1], T. Choularton*[1], M.W. Gallagher[1], K. N. Bower[1], G Young[1], H Jones[1], J Crosier[1], S Abel[2], R Cotton[2], I Boutle[2], P Brown[2]
[1]University of Manchester, UK, [2]Met Office, UK
17:00

S10.9 Large eddy simulations using immersion-freezing ice nucleation in coupled sub-Arctic mixed-phase clouds
Gillian Young*[1], Paul J. Connolly[1], Thomas W. Choularton[1], Martin W. Gallagher[1], Hazel M. Jones[1], Jonathan Crosier[1,2], Keith N. Bower[1]
[1]Centre for Atmospheric Science, University of Manchester, UK, [2]National Centre for Atmospheric Science, University of Manchester, UK
17:15

S10.10 Arctic Aerosol-Cloud Interactions during ASCOS
Robin Stevens*[1], Adrian Hill[2], Ben Shipway[2], Paul Field[2], Ken Carslaw[1]
[1]University of Leeds, UK, [2]Met Office, UK
17:30

S10.11 Investigations of adaptive habit ice microphysics using polarimetric radar techniques
Kara Sulia*[1], Matthew Kumjian[2]
[1]University at Albany, USA, [2]Penn State University, USA
17:45

Return to Main Menu

Session 11 - Secondary ice production I

Parallel Sessions, 12.00 - 12.30pm, Friday July 29th
Renold C2

S11.1 Secondary Ice Multiplication – current state of the science and recommendations for the future
Paul Field*[1,2], Alan Blyth[4], Tom Choularton[3], Paul Connolly[3], Brown Phil[1], Paul Lawson[5], Sonia Lasher-Trapp[6], Gary LLoyd[3], Annette Miltenberger[2], Dmitri Moisseev[7], Athanasios Nenes[8], Chris Westbrook[9]
[1]Met Office, UK, [2]ICAS, Univ of Leeds, UK, [3]Manchester University, UK, [4]NCAS, Univ iof Leeds, UK, [5]SPEC inc., USA, [6]University of Illinois, USA, [7]University of Helsinki, Finland, [8]Georgia Institute of Technology, USA, [9]University of Reading, UK
12:00

S11.2 Production of secondary ice particles and splintering of freezing droplets as a potential mechanism of ice multiplication
Alexei Kiselev*[1], Annika Lauber[1], Patricia Handmann[1], Thomas Pander[1], Thomas Leisner[1,2]
[1]Karlsruhe Institute of Technology, Institute of Meteorology and Climate Research, Germany, [2]Heidelberg University, Institute of Environmental Physics, Germany
12:15

Return to Main Menu

Session 11 - Secondary ice production II

Parallel Sessions, 1.30 - 3.15pm, Friday July 29th
Renold C2

S11.3 Sticking Efficiencies and Multiplication by Fragmentation in Ice-Ice Collisions
Vaughan Phillips
Lund University, Sweden
13:30

S11.4 Observed and simulated cloud-top phase changes
Corinna Hoose*[1], Leopoldo Carro-Calvo[1], Markus Karrer[1], Sancho Salcedo-Sanz[2], Martin Stengel[3]
[1]Karlsruhe Institute of Technology, Germany, [2]Department of Signal Theory and Communications, Universidad de Alcalá, Spain, [3]Deutscher Wetterdienst, Germany
13:45

S11.5 Dual-polarization weather radar observations of secondary ice production regions
Dmitry Moisseev*[1,2], Annakaisa von Lerber[2], Paul Field[3,4]
[1]University of Helsinki, Finland, [2]Finnish Meteorological Institute, Finland, [3]Met Office, UK, [4]University of Leeds, UK
14:00

S11.6 Microphysical analysis of a warm front using radar and in-situ data
Stavros Keppas*, Jonathan Crosier, Keith Bower, Thomas Choularton
University of Manchester, UK
14:15

S11.7 On the importance of updraft speed and dwell time on the production of secondary ice based in convective clouds in southwest England
Robert Jackson*[1], Jeffrey French[1], David Leon[1], Sonia Lasher-Trapp[2], Alan Blyth[3]
[1]University of Wyoming, USA, [2]University of Illinois at Urbana-Champaign, USA, [3]University of Leeds, UK
14:30

S11.8 The Origin of Ice at a High-Alpine Site
Gary Lloyd*, Thomas Choularton, Paul Connolly, Keith Bower, Michael Flynn, Robert Farrington, Martin Gallagher, Jonathan Crosier
University of Manchester, UK
14:45

S11.9 Observation of orographic clouds at the high alpine site Jungfraujoch, Switzerland.
Jan Henneberger*, Olga Henneberg, Alex Beck, Ulrike Lohmann
ETH Zürich, Institute for Atmospheric and Climate Science, Switzerland
15:00

Return to Main Menu

Session 12 - Aerosol-cloud-precipitation-interactions and processing I

Parallel Sessions, 3.00 - 4.15pm, Wednesday July 27th
Renold C16

S12.1 On impacts of solar-absorbing aerosol on the transition of stratocumulus to trade cumulus clouds
Andrew Ackerman*[1], Xiaoli Zhou[2], Ann Fridlind[1], Robert Wood[3], Pavlos Kollias[2,4]
[1]NASA Goddard Institute for Space Studies, USA, [2]McGill University, Canada, [3]University of Washington, USA, [4]Stony Brook University, USA
15:00

S12.2 Understanding aerosol-cloud interactions in Arctic mixed-phase clouds
Gijs de Boer*[1,2], Matthew Shupe[1,2], Timothy Garrett[3], David Turner[4], Chuanfeng Zhao[5]
[1]University of Colorado, USA, [2]NOAA Earth System Research Laboratory, USA, [3]University of Utah, USA, [4]NOAA Severe Storms Laboratory, USA, [5]Beijing Normal University, China
15:15

S12.3 Cloud processing effects on CCN and cloud microphysics
James Hudson*, Stephen Noble
Desert Research Institute, USA
15:30

S12.4 The impact of aerosol particles on cloud formation and precipitation: a numerical study based on the HyMeX IOP7a case
Christina Kagkara*[1], Andrea I. Flossmann[1,2], Wolfram Wobrock[1,2], Celine Planche[1,2]
[1]LaMP/UBP, France, [2]INSU/CNRS, France
15:45

S12.5 A Path to Constraining the Aerosol-Cloud Radiative Effect
Graham Feingold*[1], Takanobu Yamaguchi[2,1], Jan Kazil[2,1], Allison McComiskey[1], Elisa Sena[3]
[1]NOAA Earth System Research Laboratory, USA, [2]CIRES/University of Colorado, USA, [3]University of Sao Paulo, Brazil
16:00

Return to Main Menu

Session 12 - Aerosol-cloud-precipitation-interactions and processing II

Parallel Sessions, 4.30 – 6.00pm, Wednesday July 27th
Renold C16

S12.6 Microphysical and Dynamical Factors Controlling the Precipitation Efficiency Response to Changes in Aerosol Loading
Zachary Lebo*[1], Graham Feingold[2]
[1]University of Wyoming, USA, [2]NOAA - ESRL/CSD, USA
16:30

S12.7 3D numerical simulation of orographic cloud seeding using a bin microphysics scheme
István Geresdi*[1], Lulin Xue[2], Roy Rasmussen[2], Noémi Sarkadi[1]
[1]University of Pécs, Hungary, [2]National Center for Atmospheric Research, USA
16:45

S12.8 Do soil dust particles from semi-arid areas enhance the influence of dust on clouds?
Matthias Hummel*, Jon Egill Kristjansson
University of Oslo, Norway
17:00

S12.9 Influence of ice nuclei on precipitation in deep convective clouds
Marco Paukert*[1], Corinna Hoose[2]
[1]Karlsruhe Institute of Technology (KIT), IMK-AAF, Germany, [2]Karlsruhe Institute of Technology (KIT), IMK-TRO, Germany
17:15

S12.10 Inclusion of forest fire smoke in WRF-CHEM simulations and its impact on deep convective clouds: A DC3 case study
Azusa Takeishi*, Trude Storelvmo
Yale University, USA
17:30

S12.11 Separating dynamical and microphysical impacts of aerosols on deep convection applying piggybacking methodology
Wojciech W. Grabowski
NCAR, USA
17:45

Return to Main Menu

Session 13 - Clouds and climate (including radiative properties of clouds) I

Parallel Sessions, 8.30 – 10.00am, Tuesday July 26th
Renold C16

S13.1 On the Representation of Cloud Phase in Global Climate Models, and its Importance for Simulations of Climate Forcings and Feedbacks
Trude Storelvmo*, Navjit Sagoo, Ivy Tan
Yale University, USA
08:30

S13.2 The dehydration-Greenhouse Feedback
Eric Girard*, Jean-Pierre Blanchet, Setigui Keita, Ana Cirisan, Ludovick Pelletier
University of Quebec at Montreal, Canada
08:45

S13.3 Regime dependence of precipitating cloud impact parameters
Anita Rapp*[1], Lu Sun[1], Tristan L'Ecuyer[2]
[1]Texas A&M University, USA, [2]University of Wisconsin-Madison, USA
09:00

S13.4 How well do GCMs simulate transitions between closed and open marine stratocumulus clouds?
Tom Goren*, Johannes Quaas
University of Leipzig, Leipzig Institute for Meteorology, Germany
09:15

S13.5 Exploring the representation of humidity variability by an assumed probability density function scheme
Vera Schemann
University of Cologne, Germany
09:30

S13.6 Cloud Retrievals for Climate and Weather Using Combinations of Geostationary and Polar-Orbiting Satellite Imager Data
Patrick Minnis[1], Szedung Sun-Mack[2], Kristopher Bedka[1], Rabindra Palikonda*[2], William Smith, Jr.[1], Christopher Yost[2], Yan Chen[2], Thad Chee[2]
[1]NASA Langley Research Center, USA, [2]Science Systems and Applications, Inc., USA
09:45

Return to Main Menu

Session 13 - Clouds and climate (including radiative properties of clouds) II

Parallel Sessions, 10.30am - 12.30pm, Tuesday July 26th
Renold C16

S13.7 A Multi-Instrument Satellite View of the Global Three-Dimensional Distribution of Cloud Liquid Water
Jussi Leinonen*, Matthew Lebsock, Graeme Stephens
Jet Propulsion Laboratory, California Institute of Technology, USA
10:30

S13.8 The missed marine warm clouds by the Cloud Profiling Radar and its impact on the accuracy of cloud microphysical property statistics
Dongyang Liu*, Qi Liu, Lingli Zhou
School of Earth and Space Sciences, University of Science and Technology of China, China
10:45

S13.9 Cloud-aerosol interactions and precipitation scavenging in the Accelerated Climate Model for Energy (ACME)
Hailong Wang*, Richard Easter, Kai Zhang, Balwinder Singh, Po-Lun Ma, Yun Qian, Philip Rasch
Pacific Northwest National Laboratory, USA
11:00

S13.10 Online comparison between droplet activation parameterisations and an embedded cloud parcel model in the GCM ECHAM-HAM
Daniel Partridge
Stockholm University, Sweden
11:15

S13.11 Optimal Estimation retrieval of cloud droplet number concentration for synergistic ground-based observations
Daniel Merk*[1], Hartwig Deneke[1], Bernhard Pospichal[2]
[1]Leibniz-Institute for Tropospheric Research (TROPOS), Germany, [2]University Leipzig, Germany
11:30

S13.12 Sub-millimetres, a new wavelength region for retrievals of cloud ice properties
Patrick Eriksson*[1], Stefan Buehler[2], Stuart Fox[3], Dong Wu[4]
[1]Chalmers University of Technology, Sweden, [2]University of Hamburg, Germany, [3]Met Office, UK, [4]Goddard Space Flight Cente, USA
11:45

S13.13 On the Influence of air mass history on aerosol-cloud interactions in the South-East Atlantic
Julia Fuchs*, Jan Cermak
Ruhr-Universität Bochum, Germany
12:00

S13.14 MARINE CLOUD BRIGHTENING [MCB] – REGIONAL APPLICATIONS
Alan Gadian*[1], John Latham[2,3], Jim Fournier[5], Ben Parkes[4], Peter Wad hams[6]
[1]NCAS, University of Leeds, UK, [2]NCAR,, USA, [3]SEAS, University of Manchester, UK, [4]L'OCEAN, University du Pierre and Marie Curie, France, [5]Planetwork, USA, [6]DAMTP, University of Cambridge, UK
12:15

Return to Main Menu

Session 13 - Clouds and climate (including radiative properties of clouds) III

Parallel Sessions, 3.00 - 4.15pm, Tuesday July 26th
Renold C16

S13.15 How well can we represent the subgrid distribution of convective clouds in a climate model?
Laurent Labbouz*[1], Zak Kipling[1], Philip Stier[1], Hugh Morrison[2], Jason Milbrandt[3], Alain Protat[4]
[1]University of Oxford, UK, [2]National Center for Atmospheric Research, USA, [3]Atmospheric Numerical Prediction Research, Environment Canada, Canada, [4]Centre for Australian Weather and Climate Research, Australia
15:00

S13.16 Mechanisms of convective cloud response to aerosol in a global model with a cloud field parameterisation
Zak Kipling*, Laurent Labbouz, Philip Stier
Department of Physics, University of Oxford, UK
15:15

S13.17 Predator - Prey: a viable concept for the parameterisation of convection?
Michael Herzog*[1], Leif Denby[1], Cathy Hohenegger[2]
[1]University of Cambridge, UK, [2]Max Planck Institute for Meteorology, Germany
15:30

S13.18 Evidence for Convective Invigoration from A-Train Observations
Johannes Muelmenstaedt*[1], Daniel Rosenfeld[2], Odran Sourdeval[1], Julien Delanoë[3], Johannes Quaas[1]
[1]Universität Leipzig, Germany, [2]Hebrew University of Jerusalem, Israel, [3]LATMOS UVSQ/CNRS/UPMC/IPSL, France
15:45

S13.19 Space-borne observations of the most extreme storms on Earth: a new perspective from the NASA-JAXA GPM mission
Kamil Mroz*[1], Alessandro Battaglia[1,2], Frederic Tridon[2], Timothy James Lang[4], Simone Tanelli[3]
[1]National Centre for Earth Observation, UK, [2]Department of Physics and Astronomy, University of Leicester, UK, [3]Jet Propulsion Laboratory, USA, [4]NASA Marshall Space Flight Center, USA
16:00

Return to Main Menu

Session 13 - Clouds and climate (including radiative properties of clouds) IV

Parallel Sessions, 4.30 – 6.00pm, Tuesday July 26th
Renold C16

S13.20 Impact of the collection efficiencies in ice phase processes on clouds and climate
Ulrike Lohmann*, David Neubauer
ETH Zurich, Switzerland
16:30

S13.21 Satellite observations of cloud glaciation processes
Edward Gryspeerdt*[1], Odran Sourdeval[1], Philipp Kühne[1], Julien Delanoë[2], Johannes Quaas[1]
[1]Universität Leipzig, Germany, [2]Laboratoire Atmosphères, Milieux, Observations Spatiales/IPSL/UVSQ/CNRS/UPMC, France
16:45

S13.22 Climatology and long-term changes in cloud cover over the ocean by using frequency distribution
Marina Aleksandrova*, Sergey Gulev, Konstantin Belyaev
P.P. Shirshov Institute of Oceanology RAS, Russia
17:00

S13.23 Measuring ice clouds at millimeter/submillimeter wavelength – how much information can we gain?
Verena Grützun*[1], Stefan A. Buehler[1], Manfred Brath[1], Jana Mendrok[2], Patrick Eriksson[2]
[1]University of Hamburg, Meteorological Institut, Germany, [2]Chalmers University of Technology, Earth and Space Sciences, Sweden
17:15

S13.24 Dependence of the Ice Water Content and Snowfall Rate on Temperature, Globally: Comparison of In-Situ Observations, Satellite Active Remote Sensing Retrievals and Global Climate Model Simulations
Andrew Heymsfield*[1], Martina Kramer[2], Norm Wood[3], Andrew Gettelman[4], Paul Field[5], Guosheng Liu[6]
[1]NCAR, USA, [2]Forschungszentrum, Germany, [3]University of Wisconsin, USA, [4]NCAR, USA, [5]UK Met Office, UK, [6]Florida State University, USA
17:30

S13.25 Report from the International Cloud Modeling Workshop: Exeter, UK, July 18-22, 2016
Zachary Lebo*[1], Ben Shipway[2]
[1]University of Wyoming, USA, [2]Met Office, UK
17:45

Return to Main Menu

Session 14 - Ice nuclei and cloud condensation nuclei I

Parallel Sessions, 4.45 – 6.00pm, Monday July 25th
Renold C2

S14.1 Intercomparison of ice nucleation measurement methods during the Fifth International Ice Nucleation Workshop and during ambient aerosol sampling
Paul DeMott*[1], Thomas Hill[1], Markus Petters[2], Daniel Cziczo[3], Ottmar Möhler[4], Naruki Hiranuma[4], Kaitlyn Suski[1], Ezra Levin[1], Ryan Mason[5], Christina McCluskey[1], Sarah Suda[2], Nicholas Rothfuss[2], Hans Taylor[2], Cedric Chou[5], Thea Schiebel[4], Allan Bertram[5]
[1]Colorado State University, USA, [2]North Carolina State University, USA, [3]Massechusetts Institute of Technology, USA, [4]Karlsruhe Institute of Technology, Germany, [5]University of British Columbia, Canada
16:45

S14.2 Suppression of the feldspar ice nucleation activity by thin coating layers of secondary organics and sulphuric acid
Ottmar Möhler*[1], Naruki Hiranuma[1], Dan J. Cziczo[2], Paul J. DeMott[3], Romy Ullrich[1], Thea Schiebel[1], Kristina Höhler[1], Claudia Mohr[1], Adam Ahern[4], Ryan Sullivan[4], Hashim Al-Mashat[5], David Bell[6], Jacqueline Wilson[6], Alla Zelenyuk[6], Nickolas Marsden[7], Fabian Marth[8], Susan Schmidt[9], Johannes Schneider[9], Anna Wonaschütz[10], Maria A. Zawadowicz[2]
[1]Karlsruhe Institute of Technology, Germany, [2]Massachusetts Institute of Technology, USA, [3]Colorado State University, USA, [4]Carnegie Mellon University, USA, [5]University of California, USA, [6]Pacific Northwest National Laboratory, USA, [7]University of Manchester, UK, [8]ETH, Switzerland, [9]Max Planck Institute for Chemistry, Germany, [10]University of Vienna, Austria
17:00

S14.3 Comparing ice nucleation measurements from a suite of instrumentation: LINC, the Leipzig Ice Nucleation counter Comparison campaign
Heike Wex*[1], Monika Kohn[2], Sarah Grawe[1], Susan Hartmann[1], Lisa Hellner[1], Paul Herenz[1], Andre Welti[1], Ulrike Lohmann[2], Zamin Kanji[2], Frank Stratmann[1]
[1]Leibniz Institute for Tropospheric Research, Germany, [2]Institute for Atmospheric and Climate Science, ETH, Switzerland
17:15

S14.4 Ice nucleation on size-selected aerosol using PINC and SPIN in sub- and super-saturated conditions with respect to water during LINC
Monika Kohn[1], Heike Wex[2], Sarah Grawe[2], Susan Hartmann[2], Lisa Hellner[2], Paul Herenz[2], André Welti[2], Frank Stratmann[2], Ulrike Lohmann[1], Zamin A. Kanji*[1]
[1]Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland, [2]Experimental Aerosol and Cloud Microphysics, Leibniz Institute for Tropospheric Research, Germany
17:30

S14.5 The adsorption of fungal ice-nucleating proteins on mineral dusts: a terrestrial reservoir of atmospheric ice-nucleating particles
Daniel O'Sullivan*[1], Benjamin J. Murray[1], James Ross[2,3], Michael E. Webb[2]
[1]Insititute for Climate and Atmopsheric Science, School of Earth and Environment, University of Leeds, UK, [2]School of Chemistry and Astbury Centre for Structural Molecular Biology, University of Leeds, UK, [3]School of Chemistry, University of Bristol, UK
17:45

Return to Main Menu

Session 14 - Ice nuclei and cloud condensation nuclei II

Parallel Sessions, 8.30 – 10.00am, Tuesday July 26th
Renold C2

S14.6 Heterogeneous ice nucleation ability of fresh and cloud-processed α-pinene SOA particles
Robert Wagner*[1], Kristina Höhler[1], Emma Järvinen[1], Alexei Kiselev[1], Ottmar Möhler[1], Claudia Mohr[1], Aki Pajunoja[2], Harald Saathoff[1], Thea Schiebel[1], Annele Virtanen[2]
[1]Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology, Germany, [2]Department of Applied Physics, University of Eastern Finland, Finland
08:30

S14.7 Moving contact lines due to electrowetting enhance ice nucleation rates
F. Yang*, R. Shaw, C. Gurganus, S.-K. Chong, Y.-K. Yap
Michigan Technological University, USA
08:45

S14.8 Observations of Ice Nucleating Particles during the ICE-D Campaign.
Jim McQuaid[1], Hannah Price[1,5], Ben Murray*[1], Claire Ryder[2], Jennifer Brooke[3], Paul Field[3], Alan Blyth[4], Paola Formenti[6], Jamie Trembath[5]
[1]School of Earth and Environment, University of Leeds, UK, [2]Department of Meteorology, University of Reading, UK, [3]Met Office, UK, [4]National Centre for Atmospheric Science, University of Leeds, UK, [5]Facility for Airborne Atmospheric Measurements, Cranfield University, UK, [6]Laboratoire Interuniversitaire des Systèmes Atmosphériques (LISA), France
09:00

S14.9 Layered structure of dust and their origins in the Cape Verde region during the ICE-D campaign
Zhiqiang Cui*[1], Alan Blyth[1,2], Hannah Price[1], Jim McQuaid[1], Ben Murray[1], Tom Choularton[3], Richard Cotton[4], Paul Field[1,4], Martin Gallagher[3], Keith Bower[3], Lindsay Bennett[1,2], Ryan Neely[1,2], Yahui Huang[1]
[1]University of Leeds, UK, [2]National Centre for Atmospheric Science, UK, [3]University of Manchester, UK, [4]Met Office, UK
09:15

S14.10 Observation of Ice Nucleating Particles and Cloud Microphysics with Active Remote Sensing
Johannes Bühl*[1], Patric Seifert[1], Rodanthi Mamouri[2], Albert Ansmann[1], Ronny Engelmann[1]
[1]TROPOS, Germany, [2]Cyprus University of Technology, Cyprus
09:30

S14.11 Conditions Influencing Transport of Fluorescent Biological Aerosol Particles in the Atmosphere and Implications for Ice Nucleation
Cynthia Twohy*[1], Gavin McMeeking[2], Christina McCluskey[3], Paul DeMott[3], Thomas Hill[3]
[1]NorthWest Research Associates, USA, [2]Handix LLC, USA, [3]Colorado State University, USA
09:45

Return to Main Menu

Session 14 - Ice nuclei and cloud condensation nuclei III

Parallel Sessions, 10.30am - 12.30pm, Tuesday July 26th
Renold C2

S14.12 Sea spray aerosols influence atmospheric ice nucleating particle populations
Christina Mccluskey*[1], Thomas Hill[1], Samuel Atwood[1], Katherine Rocci[1], Yvonne Boose[2], Gavin Cornwell[3], Camille Sultana[3], Kathryn Moore[3], Andrew Martin[3], Kimberly Prather[3], Nicholas Rothfuss[4], Hans Taylor[4], Markus Petters[4], Jurgita Ovadnevaite[5], Darius Ceburnis[5], Colin O'Dowd[5], Melita Keywood[6], Alain Protat[7], Paul DeMott[1], Sonia Kreidenweis[1]
[1]Colorado State University, USA, [2]ETH Swiss Federal Institute of Technology Zurich, Switzerland, [3]University of California, San Diego, USA, [4]North Carolina State University, USA, [5]National University of Ireland, Ireland, [6]CSIRO Atmospheric Research, Australia, [7]Australian Bureau of Meteorology, Australia
10:30

S14.13 Global synthesis of long-term cloud condensation nuclei observations
Julia Schmale[1], Silvia Henning*[2], Frank Stratmann[2], Bas Henzing[3], Patrick Schlag[4,5], Pasi Aalto[6], Helmi Keskinen[6,7], Mikhail Paramonov[6], Laurent Poulain[2], Karine Sellegri[8], Jurgita Ovadnevaite[9], Mira Krüger[10], Anne Jefferson[11], James Whitehead[12], Ken Carslaw[13], Seong Soo Yum[14], Adam Kristensson[15], Urs Baltensperger[1], Martin Gysel[1], CCN Team[16,17]
[1]Paul Scherrer Institute, Switzerland, [2]Leibniz Institute for Tropospheric Research, Germany, [3]Netherlands Organisation for Applied Scientific Research, The Netherlands, [4]University of Utrecht, The Netherlands, [5]Forschungszentrum Jülich, Germany, [6]University of Helsinki, Finland, [7]Hyytiala; Forestry Field Station, Finland, [8]University of Clermont-Ferrand, France, [9]National University of Ireland Galway, Ireland, [10]Max Planck Institute for Chemistry, Germany, [11]National Oceanic and Atmospheric Administration, USA, [12]University of Manchester, UK, [13]University of Leeds, UK, [14]Yonsei University, Republic of Korea, [15]University of Lund, Sweden, [16]Energy Research Centre of the Netherlands, The Netherlands, [17]University of Sao Paulo, Brazil
10:45

S14.14 Physical, chemical and hygroscopic properties of urban aerosols in Seoul measured during the KORUS-AQ pre-campaign
Seong Soo Yum*[1], Najin Kim[1], Minsu Park[1], Hye Jung Shin[2], Jong Sung Park[2], Seung Myung Park[2], In Ho Song[2], Joon Young Ahn[2], Gwi-Nam Bae[3], Kyung-Hwan Kwak[3], Hwajin Kim[3]
[1]Yonsei University, Republic of Korea, [2]National Institute of Environmental Research, Republic of Korea, [3]Korea Institute of Science and Technology, Republic of Korea
11:00

S14.15 IMPORTANCE OF CHEMICAL COMPOSITION OF ICE NUCLEI ON THE FORMATION OF ARCTIC ICE CLOUDS
Setigui Keita*, Eric Girard
ESCER Centre, Department of Earth and Atmospheric Sciences, University of Quebec at Montreal, Canada
11:15

S14.16 Combining Theoretical and Laboratory Studies to Parameterise Contact Nucleation by Mineral Dust
Luke Hande*, Corinna Hoose
Karlsruhe Institute of Technology, Germany
11:30

S14.17 The competition for water vapour between INP and CCN results in a suppression of ice
Emma Simpson*, Paul Connolly, Gordon McFiggans
Centre for Atmospheric Science, the University of Manchester, UK
11:45

S14.18 A Modelling Study of the Impact of Ice Nucleation by Different Aerosol Types on the Development of a Convective Cloud.
Thibault Hiron*[1,2], Andrea Flossmann[1,3]
[1]Université Blaise Pascal, France, [2]Karlsruhe Institute of Technology, Germany, [3]Centre National pour la recherche Scientifique, UMR 6016, France
12:00

S14.19 Marine organic aerosols and k-feldspar as ice nucleating particles in the atmosphere.
Jesus Vergara Temprado*, Ken Carslaw, Ben Murray
University of Leeds, UK
12:15

Return to Main Menu

Session 15 - Cloud and precipitation chemistry I

Parallel Sessions, 3.00 - 4.15pm, Tuesday July 26th

Renold C2

S15.1 The retention of organics during riming: wind tunnel and model results
Alexander Jost*[1], Karoline Diehl[2], Subir Kumar Mitra[1], Miklós Szakáll[2], Stephan Borrmann[1,2]
[1]Max Planck Institue for Chemistry, Germany, [2]University of Mainz, Germany
15:00

S15.2 Tracking the footprint of collisions and aqueous-phase chemical reactions on aerosol size distribution using a lagrangian cloud-microphysics scheme
Anna Jaruga*, Piotr Dziekan, Anna Zimniak, Hanna Pawlowska
University of Warsaw, Poland
15:15

S15.3 A new method for estimating aerosol mass flux in the urban surface layer by LAS
Renmin Yuan
University of Science and Technology of China, China
15:30

S15.4 Cloud residual particle composition measurements in convective clouds over the Amazon during ACRIDICON-CHUVA
Christiane Schulz*[1], Johannes Schneider[1], Stephan Mertes[2], Udo Kästner[2], Stephan Borrmann[1,3]
[1]Max Planck Institute for Chemistry, Germany, [2]Leibniz Institute for Tropospheric Research, Germany, [3]Institute for Atmospheric Physics, Johannes Gutenberg University, Germany
15:45

S15.5 Examination Of The Potential Impacts Of Dust and Pollution Aerosol Acting As Cloud Nucleating Aerosol On Water Resources In The Colorado River Basin
Vandana Jha*, William R Cotton, Gustavo G Carrio, Jeffery Pierce
Colorado State University, USA
16:00

Return to Main Menu

Session 15 - Cloud and precipitation chemistry II

Parallel Sessions, 4.30 – 6.00pm, Tuesday July 26th

Renold C2

S15.6 Multiphase production of oxalates on the global scale
Holger Tost
Johannes Gutenberg University, Germany
16:30

S15.7 Modelling cloud chemistry at the puy de Dôme station
Clémence ROSE*[1], Laurent DEGUILLAUME[1], Nadine CHAUMERLIAC[1], Hélène PERROUX[1], Luc PATRYL[2], Patrick ARMAND[2], Camille MOUCHEL-VALLON[1]
[1]CNRS LaMP/OPGC, France, [2]CEA, France
16:45

S15.9 Combining cloud physics instruments with geochemical analysis of rain and cloud samples - a tool for better understanding aerosol-cloud interactions.
Assaf Zipori*[1], Daniel Rosenfeld[1], Yvonne Boose[2], Larissa Lacher[2], Erel Yigal[1]
[1]The Institute of Earth Sciences, Israel, [2]institute for atmospheric and climate science, Swaziland
17:15

S15.10 Chemical and microbial content of clouds collected at the Reunion island in the Indian Ocean
Mickael Vaitilingom*[1,2], Laurent Deguillaume[1], Magali Abrantes[2], Muriel Joly[2], Martine Sancelme[2], Frederic Burnet[3], Jean-Marc Metzger[4], Anne-Marie Delort[2], Valentin Duflot[4], Pierre Tulet[4]
[1]LaMP/OPGC,CNRS UMR 6016, France, [2]ICCF, CNRS UMR 6296, France, [3]CNRM/GAME, Meteo France-CNRS UMR 3589, France, [4]LACy/OPAR, CNRS UMR 8105, Reunion
17:30

S15.11 Aerosol wet deposition at Appalachian Mountains site in the United States
Constantin Andronache
Boston College, USA
17:45

Return to Main Menu

Session 16 - Measurement techniques (of cloud & precipitation properties) & uncertainties I

Parallel Sessions, 10.30am - 12.30pm, Monday July 25th
Renold C2

S16.1 Development of Stochastic Parameterizations of Cloud Microphysics for Models and Retrievals: Use of Uncertainty in In-Situ Observations
Greg McFarquhar*[1,2], Wei Wu[1], Joe Finlon[1], Shichu Zhu[1], Dan Stechman[1], Robert Jackson[1,3], Robert Rauber[1], Brian Jewett[1], Alfons Schwarzenboeck[4], Alexei Korolev[5], Delphine Leroy[5], J Walter Strapp[6], Michael Poellot[7]
[1]University of Illinois, USA, [2]National Center for Atmospheric Research, USA, [3]University of Wyoming, USA, [4]Laboratoire de Météorologie Physique, CNRS/Université Blaise Pascal, France, [5]Meteorological Service of Canada, Canada, [6]Met Analytics, Inc., Canada, [7]University of North Dakota, USA
10:30

S16.2 Toward the future of cloud particle characterization with large sample volume ensemble particle probes
Matthew Hayman
NCAR, USA
10:45

S16.3 How biased is the sampling of clouds by aircraft?
Paul Field[1,2], Kalli Furtado*[1]
[1]Met Office, UK, [2]University of Leeds, UK
11:00

S16.4 Quantification of Mixed Phase Cloud Properties with Single Particle Light Scattering Polarimetry
Darrel Baumgardner*[1], Martina Kraemer[2], Martin Gallagher[3], James Dorsey[3], Jonathan Croiser[3]
[1]Droplet Measurement Technologies, USA, [2]Forschung Juelich, Germany, [3]University of Manchester, UK
11:15

S16.5 A Submicron Cloud Particle Imager (CPI) for Small UAV and Manned Aircraft
Paul Lawson*, Akira Kyle, Colin Gurganus
SPEC Inc., USA
11:30

S16.6 Measurements of mixed-phase and ice cloud microphysical properties with spectrum-resolved water Raman lidar and their use in evaluating cloud radar/lidar retrieval methods
Jens Reichardt*, Christine Knist
Deutscher Wetterdienst, Germany
11:45

S16.7 Improved synergy retrievals of precipitation rates and ice cloud properties using cloud radar with Doppler capability
Shannon Mason*[1], Christine Chiu[1], Robin Hogan[2,1]
[1]University of Reading, UK, [2]ECMWF, UK
12:00

S16.8 Diagnosing Raindrop Breakup and Coalescence from Vertically Pointing Radar Observations
Christopher Williams
University of Colorado Boulder, USA
12:15

Return to Main Menu

Session 16 - Measurement techniques (of cloud & precipitation properties) & uncertainties II

Parallel Sessions, 3.00 - 4.15pm, Monday July 25th
Renold C2

S16.9 Using a Ground Based Integrated Sensor System to Remotely Detect Supercooled Cloud Layers in Cold Climates
Faisal Boudala*[1], George Isaac[2], David Hudak[1], Robert Crawford[1], Martha Anderson[3], Paul Yang[4], Marie-France Turcotte[5], Ismail Gultepe[1], Di Wu[1]
[1]Cloud Physics and Severe Weather Research Section, Environment and Climate Change Canada, Canada, [2]Weather Impacts Consulting Incorporated, Canada, [3]Department of National Defence, Government of Canada, Canada, [4]Meteorological Service of Canada, Environment and Climate Change Canada, Canada, [5]Meteorological Service of Canada, Environment and Climate Change Canada, Canada
15:00

S16.10 Statistical Assessment of Rainfall Properties Over Varying Scales
Joshua Teves*, Michael Larsen
College of Charleston, USA
15:15

S16.11 Examination of the catch efficiency of precipitation gauges based on the type of snow
Julie M. Thériault*[1], Roy Rasmussen[2], Matteo Colli[3], Luca G. Lanza[3]
[1]University of Quebec at Montreal, Canada, [2]National Center for Atmospheric Research, USA, [3]University of Genova, Italy
15:30

S16.12 Development of a New Theoretical Framework for the Analysis of Disdrometer Data
Michael Larsen*[1], Robert Lemasters[2], Katelyn O'Dell[1], Joshua Teves[1]
[1]College of Charleston, USA, [2]Emory University, USA
15:45

S16.13 Exploring the Microphysical Properties of Exoplanet Clouds (or Bringing Exoplanet Clouds Down to Earth)
Alexandria Johnson*[1,2], Sara Lance[1,3], Sara Seager[1], David Charbonneau[4], Amy Bauer[5], Daniel Cziczo[1]
[1]Massachusetts Institute of Technology, USA, [2]Brown University, USA, [3]SUNY Albany, USA, [4]Harvard-Smithsonian Center for Astrophysics, USA, [5]TSI Incorporated, USA
16:00

S16.14 Quantitative evaluation of seven optical sensors for cloud microphysical measurements at the Puy-de-Dôme Observatory, France
Guyot gwennolé*[1], Gourbeyre Christophe[1], Febvre Guy[1], Shcherbakov Valery[1], Burnet Frederic[2], Dupont Jean Charles[3], Sellegri Karine[1], Jourdan Olivier[1]
[1]LaMP, France, [2]Météo-France/CNRS, France, [3]Institut Pierre-Simon Laplace, France
16:15

Return to Main Menu

Poster Sessions:

P1 Basic cloud and precipitation physics

1.30 – 3.00pm: Poster Session 1, Monday July 25th *Renold C floor foyer*

P1.1 Parameterization of Charge Modulation of Aerosol Scavenging with Varying Relative Humidity
Brian Tinsley
Univ. of Texas at Dallas, USA

P1.2 Analysis of Precipitation Characteristics based on Laser Optical Spectrometer Data in Tianjin Area
Ruijun Jin*, Wei Song
Tianjin Weather Modification Office, China

P1.3 Extreme deformation and breakup of drop suspended in a vertical wind tunnel in the presence of a horizontal electric field.
Rohini Bhalwankar*, C.G. Deshpande, A.K. Kamra
Indian Institute of tropical Meteorology,, India

P1.4 Buoyancy of warm convective clouds: the role of humidity
Guy Dagan*, Ilan Koren, Orit Altaratz, Reuven H. Heiblum
Department of Earth and Planetary SWeizmann Institute of Science, Israel

P1.5 Moist vs. dry convection: Influence of cloud droplet growth and evaporation on turbulent flow
Dennis Niedermeier*[1,2], Will Cantrell[1], Kamal Chandrakar[1], Kelken Chang[1], David Ciochetto[1], Raymond Shaw[1]
[1]Department of Physics, Michigan Technological University, USA, [2]Leibniz Institute for Tropospheric Research, Germany

P1.6 Scavenging of aerosol particles and minimum collection efficiency diameter during snow precipitation
Chang Hoon Jung*[1], Soo Ya Bae[2], Yong Pyo Kim[3]
[1]Kyungin Women's University, Republic of Korea, [2]KIAPS, Republic of Korea, [3]Ewha Womans University, Republic of Korea

P1.7 Numerical simulations for cloud droplet diffusion processes with a newly modified triple-moment bulk cloud microphysics
Wei Deng*, Jiming Sun
Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P1.8 Numerical investigation for the effects of the vertical wind shear on the cloud droplet spectra broadening at the lateral boundary of the cumulus clouds
JIMING SUN*, YONGQING WANG
Key Laboratory of Cloud-Precipitation Physics and Severe Storms,Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P1.9 Analysis on the macro- and micro- characteristics of Cloud System Based on Airborne Particle Measuring System
Liren Xu*, Jun Cai, Runqiang Chen
Institute of Atmospheric Physics,Chinese Academy of Sciences, China

P1.10 Raindrop Fall Velocity Deviations from the Terminal Velocities
Firat Testik*, Kalimur Rahman
The University of Texas at San Antonio, USA

P1.11 Microphysical features of precipitation particles in melting layer by ground-based direct measurements
Kenji Suzuki*[1], Katsuhiro Nakagawa[2], Yuki Kaneko[3], Riko Oki[3], Kenji Nakamura[4]
[1]Yamaguchi University, Japan, [2]National Institute of Information and Communications Technology, Japan, [3]Japan Aerospace Exploration Agency, Japan, [4]Dokkyo University, Japan

P1.12 Testing Lagrangian particle-based warm-rain microphysics scheme in a kinematic framework
Anna Zimniak*[1], Hanna Pawlowska[1], Wojciech W. Grabowski[2]
[1]Institute of Geophysics, Faculty of Physics, University of Warsaw, Poland, [2]National Center fo Atmospheric Research (NCAR), USA

P1.13 How do collision and coalescence contribute to the activation of droplets?
Fabian Hoffmann*, Siegfried Raasch
Leibniz Universität Hannover, Germany

P1.14 Towards micro- and macrophysical parameterization of shallow convective clouds:From Large-Eddy Simulation to multi-UAV-based cloud sampling
Fayçal Lamraoui*[1], Greg Roberts[1,2], Frédéric Burnet[1]
[1]Météo-France/CNRS, CNRM/GAME, France, [2]Scripps Institution of Oceanography, University of California, USA

P1.15 EVOLUTION OF RAINDROP SIZE DISTRIBUTIONS DURING A STRATIFORM PRECIPITATION EVENT IN THE CITY OF LEON (SPAIN)
Carlos Blanco-Alegre[1], Amaya Castro[1], Ana I Calvo[1], Delia Fernandez-Gonzalez[2,3], Rosa M Valencia-Barrera[2], Ana M Vega-Maray[2], Roberto Fraile*[1]
[1]University of León, Department of Physics, IMARENAB, Spain, [2]University of León, Biodiversity and Environmental

Management, Spain, [3]Institute of Atmospheric Sciences and Climate, Italian National Research Country, Italy

P1.16 On the impact of internal fluctuations on growth of cloud droplets due to collision-coalescence: Numerical calculati post-gel droplet size distribution.
Lester Alfonso[1,2], Graciela Binimelis de Raga*[1]
[1]Universidad Autonoma de la Ciudad de Mexico, Mexico, [2]Centro de Ciencias de la Atmosfera, UNAM, Mexico

P1.17 On the observation of giant sea-salt aerosol size distributions over the SE Pacific during the 2008 VOCALS deployme
Jorgen Jensen*, Alison Nugent
NCAR Earth Observation Laboratory, USA

P1.18 Collision-coalescence rates estimated from in situ observations of marine stratocumulus
Mikael Witte*, Patrick Chuang, Dione Rossiter
University of California Santa Cruz, USA

P1.19 Characterizing microphysical precursor conditions for precipitation initiation in marine stratocumulus
Hannah Chandler, David Mechem*
University of Kansas, USA

P1.20 A new sedimentation scheme for double moment microphysics model: How to make it fast, interactive and avoid si sorting
Frederick Chosson
McGill University, Canada

P1.21 The Eastern North Atlantic ARM site: a highly-instrumented surface remote sensing and in-situ measurement site fo clouds and aerosols in the remote marine boundary layer
Robert Wood*[1], Mark Miller[2], Pavlos Kollias[3], Kim Nitschke[4], Eduardo Brito de Azevedo[5]
[1]University of Washington, USA, [2]Rutgers University, USA, [3]Stony Brook University, USA, [4]Los Alamos National Laboratory, USA, [5]Universidade dos Açores, Portugal

P1.22 Analytical solutions of the supersaturation equation for awarm cloud
Ben Devenish*, K Furtado
Met Office, UK

Return to Main Menu

P2 Warm boundary layer clouds

1.30 – 3.00pm: Poster Session 4, Thursday July 28h, *Marquee*

P2.1 Aerosol-cloud interactions in ultra clean layers (UCLs): idealized parcel model study with a detailed bin microphysics scheme
Kuan-Ting O*, Robert Wood
University of Washington, Department of Atmospheric Sciences, USA

P2.2 A Comparative Case Study for Cloud Droplet Spectrum of Shallow Maritime Cumuli in RICO with Numerical Simulation and Aircraft Observations
YONGQING WANG*, JIMING SUN
Key Laboratory of Cloud-Precipitation Physics and Severe Storms, Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P2.3 LANFEX (Local and Non-local Fog EXperiment); instrumenting a multi-site field campaign
Amanda Kerr-Munslow*, James McGregor, Jeremy Price, Robert Clark, Martyn Pickering, Tony Jones, Dave Bamber, Siân Lane, Bernard Claxton
Met Office, UK

P2.4 Evaluating the Relationship of Volumetric Soil Moisture and Low-Level Cumulus Clouds during the CLASIC Field Campaign
Charles White[1], Greg McFarquhar*[1], Mark Miller[2], Brian Jewett[1], Matt McGill[3], Dennis Hlavka[4], Steven Platnick[5], G. Thomas Arnold[5], Albin Gasiewski[6]
[1]Department of Atmospheric Sciences, University of Illinois at Urbana Champaign, USA, [2]Department of Environmental Sciences, Rutgers University, USA, [3]Mesoscale Atmospheric Processes Laboratory NASA/Goddard Space Flight Center, USA, [4]Science Systems and Applications, Inc., NASA/Goddard Space Flight Center, USA, [5]NASA/Goddard Space Flight Center, USA, [6]Department of Electrical and Computer Engineering, University of Colorado at Boulder, USA

P2.5 Droplet Concentration and Spectral Broadening in Southeast Pacific Stratocumulus Clouds
Jefferson Snider, David Leon*, Zhien Wang
University of Wyoming, USA

P2.6 A three-moment warm rain scheme for large-eddy simulation models of precipitating shallow clouds
Axel Seifert*[1], Ann Kristin Naumann[2]
[1]Deutscher Wetterdienst, Germany, [2]Max Planck Institute for Meteorology, Germany

P2.7 How does fog formation vary throughout a shallow valley network?
Sian Lane*, Jeremy Price, Amanda Kerr-Munslow
Met Office, UK

P2.9 Turbulent Mixing and Drizzle Formation in Stratocumulus Clouds
Leehi Magaritz-Ronen*, Mark Pinsky, Alexander Khain
The Hebrew University of Jerusalem, Israel

P2.10 Large-Scale Meteorological Controls on Marine Boundary Layer Aerosol Variability over the North Atlantic
Sam Pennypacker*, Rob Wood
University of Washington, USA

P2.11 Improving A Cloud Parameterization with Satellite Observations
Matthew Lebsock*, Kay Suselj
Jet Propulsion Laboratory, USA

P2.12 Impacts of grid resolution on the maritime cumulus simulated by the stochastic Lagrangian cloud microphysical scheme.
Yousuke Sato*[1,2], Shin-ichiro Shima[2]
[1]RIKEN Advanced Institute for Computational Science, Japan, [2]Graduate School of Simulation Studies, University of Hyogo, Japan

P2.13 Scaling Analysis of Temperature and Liquid Water Content in the Marine Boundary Layer Clouds during POST
Yongfeng Ma*[1], Szymon Malinowski[1], Katarzyna Karpińska[1], Hermann Gerber[2], Wojciech Kumala[1]
[1]University of Warsaw, Poland, [2]Gerber Scientific Inc., USA

P2.14 High-resolution LES simulations of stratocumulus clouds and their validation with in-situ data: focus on cloud top turbulence
Marta Kopec*[1], Szymon Malinowski[1], Zbigniew Piotrowski[2]
[1]University of Warsaw, Faculty of Physics, Institute of Geophysics, Poland, [2]Institute of Meteorology and Water Management, Poland

P2.15 The turbulent super-saturation field during the onset of shallow cumulus convection
Holger Siebert*[1], Raymond A. Shaw[2], Frank Stratmann[1]
[1]Inst. f. Tropospheric Research, Germany, [2]Michigan Technological University, USA

P2.16 Momentum transport in shallow convection
Linda Schlemmer*[1,2], Peter Bechtold[2], Irina Sandu[2], Maike Ahlgrimm[2]

[1]*Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland,* [2]*European Centre for Medium-Range Weather Forecasts, UK*

P2.17 Factors leading to the deepening of the Stratocumulus marineboundary layer
Ryan Eastman*, Robert Wood
University of Washington, USA

P2.18 Simulating Feedbacks Between Stratocumulus Cloud Dynamics, Microphysics and Aerosols Over Large Scales.
Daniel Grosvenor*[1], Paul Field[2], Adrian Hill[2], Benjamin Shipway[2]
[1]*University of Leeds, UK,* [2]*Met Office, UK*

P2.19 A hybrid Lagrangian-Eulerian numerical advection scheme developed for the simulations of cloud droplet diffusion growth
Wei Lei*, Sun Jiming
Key Laboratory of Cloud-Precipitation Physics and Severe Storms, Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P2.20 Use of W-band Doppler spectra and in situ measurements to evaluate marine stratocumulus drizzle size distribution properties predicted by two large-eddy simulation codes with bin microphysics
Jasmine Remillard[1,2], Ann Fridlind*[2], Andrew Ackerman[2], George Tselioudis[2], David Mechem[3], Pavlos Kollias[1], Edward Luke[4], Patrick Chuang[5], Michael Witte[5], Robert Wood[6], Kirk Ayers[7]
[1]*Stony Brook University, USA,* [2]*NASA GISS, USA,* [3]*University of Kansas, USA,* [4]*Brookhaven National Laboratory, USA,* [5]*University of California, USA,* [6]*University of Washington, USA,* [7]*Science Systems and Applications, Inc., USA*

P2.21 The Impact of the Cloud Droplet Size Distribution Shape Parameter on Evaporation and Cloud Fraction
Adele L Igel*, Susan C van den Heever
Colorado State University, USA

Return to Main Menu

P3 Convective clouds

1.30 – 3.00pm: Poster Session 4, Thursday July 28th , *Renold C floor foyer*

P3.1 A modified cumulus parameterization scheme and its applications in the simulation of heavy rainfall
XiBa Tang
Institute of Atmospheric Physics, China

P3.2 The Use of Modern Information Technologies of Consolidation of Meteorological Information and of Machine Learning for Validation of the Numerical Model of Convective Cloud Intended for Operational Forecasting of Dangerous Convective Phenomena
Elena Stankova*, Dmitry Petrov, Andrey Balakshiy
Saint-Petersburg State University, Russia

P3.3 Excessive Forecasts of Precipitation produced by poorly-resolved convective plumes in a point-wise semi-Lagrangian model
Jonathan Wilkinson*, Paul Field, Ben Shipway, Chris Smith, Simon Vosper, Stuart Webster, Nigel Wood, Mohamed Zerroukat
Met Office, UK

P3.4 The study of environmental conditions at the development of thunderstorms over Bulgaria
Boryana Markova*[1], Rumjana Mitzeva[2]
[1]National Institute of Meteorology and Hydrology - BAS, Bulgaria, [2]Faculty of Physics, University of Sofia, Bulgaria

P3.5 Simulations of a squall line case from MC3E applying three different bin microphysics schemes
Lulin Xue*[1], Zach Lebo[2], Jiwen Fan[3], Wei Wu[4], István Geresdi[5], Aaron Bansemer[1], Xia Chu[2], Hugh Morrison[1], Roy Rasmussen[1], Wojciech Grabowski[1], Andy Heymsfield[1], Greg McFarquhar[4]
[1]National Center for Atmospheric Research, USA, [2]University of Wyoming, USA, [3]Pacific Northwest National Laboratory, USA, [4]University of Illinois at Urbana-Champaign, USA, [5]University of Pecs, Hungary

P3.6 Climatological study on the morphology and environmental properties of quasi-stationary convective clusters during the warm season in Japan
Takashi Unuma, Tetsuya Takemi*
Disaster Prevention Research Institute, Kyoto University, Japan

P3.7 Lifecycles of convective cloud morphology
Sarah Taylor*[1], Philip Stier[1], Bethan White[1], Tobias Zinner[2]
[1]University of Oxford, UK, [2]Ludwig Maximilians Universität, Germany

P3.8 The importance of multiple thermals in the production of ice and precipitation in COPE clouds
Yahui Huang*[1], Alan Blyth[1,2], Keith Browning[2], Keith Bower[3], Tom Choularton[3], Philip Brown[4], Jeffrey French[5], David Leon[5], Sonia Lasher-Trapp[6]
[1]University of Leeds, UK, [2]National Centre for Atmospheric Science, UK, [3]University of Manchester, UK, [4]Met Office, UK, [5]University of Wyoming, USA, [6]University of Illinois, USA

P3.9 A mesoscale model intercomparison study of a mid-latitude event observed during the HYMEX campaign
Celine Planche*[1,2], Wolfram Wobrock[1,2], Andrea Flossmann[1,2], Christina Kagkara[0]
[1]Université Clermont Auvergne, Laboratoire de Météorologie Physique, France, [2]CNRS, INSU, UMR 6016, Laboratoire de Météorologie Physique, France

P3.10 Evolution of convective clouds initiated over mountains observed by Ka-band scanning Doppler radar and stereo photogrammetry
Ryohei Misumi*, Namiko Sakurai, Takeshi Maesaka, Shin-ichi Suzuki, Shingo Shimizu, Koyuru Iwanami
National Research Institute for Earth Science and Disaster Prevention, Japan

P3.11 Hail cloud identification indexes based on Doppler radar data in Northwestern Fujian
Chen Binbin*[1], Lin Changcheng[1], Lin Wen[1], Yang Kai[1], Zhang Wei[2]
[1]Fujian Meteorological Science Institute, China, [2]Longyan Meteorological Bureau, China

P3.12 An Investigation of Relationships between Wind Shear and Microphysical Pathways Leading to Convective Rainfall
Shailendra Kumar*[1], Sonia Lasher-Trapp[1], Daniel Moser[1], Jeff French[2], Alan Blyth[3], David Leon[2]
[1]University of Illinois, USA, [2]University of Wyoming, USA, [3]NCAS, School of Earth and Environment, Univ. of Leeds, UK

P3.13 High-resolution numerical simulations of an unusual cloud formation
Guillaume Penide*[1], Nicolas Ferlay[1], Fanny Minvielle[1], Timothy Garrett[2]
[1]LOA - University of Lille, France, [2]University of Utah, USA

P3.14 Evaluation of the Microphysics of Precipitation with Multifrequency Radar Observations (EMPORiuM): a prospective study
Frederic Tridon*[1], Celine Planche[2,3], Alessandro Battaglia[1,4], Marie Monier[2,3], Joel Van Bealen[2,3], Wolfram Wobrock[2,3]
[1]Department of Physics and Astronomy, University of Leicester, UK, [2]LaMP/UBP, UK, [3]INSU/CNRS, UK, [4]National Center Earth Observation, University of Leicester, UK

P3.15 Stochastic Parameterisation of Deep Convection Based on the Plant and Craig Approach Applied to the Bechtold Scheme
Leo Separovic*, Martin Charron, Paul Vaillancourt, Jing Yang, Ayrton Zadra
Recherche en Prévision Numérique Atmosphérique, Meteorological Research Division, Environment and Climate Change Canada, Canada

P3.16 THE ROLE OF VERTICAL WIND SHEAR IN THE GREAT PYROCUMULUS OF COSTA DEL SOL (MÁLAGA, SPAIN) ON 30 AUGUST 2012
Jose Maria Sánchez-Laulhé[1], Miguel Angel Catalina[2], Roberto Fraile*[3], Maria Fernandez-Raga[3]
[1]AEMET, Málaga Meteorological Center, Spain, [2]Regional Service against fire (INFOCA) in Málaga, Spain, [3]University of León. Department of Applied Chemistry and Physics, IMARENAB, Spain

P3.17 Drawing insights from a bin microphysical scheme to improve a bulk scheme in a simulation of a 3-dimensional squall line
Gregory Thompson*[1], Sarah Tessendorf[1], Istvan Geresdi[2], Noemi Sarkadi[2]
[1]NCAR-RAL, USA, [2]Univ of Pecs, Hungary, Hungary

P3.18 A pseudo-aerosol convective invigoration effect caused by meteorology
Adam Varble
University of Utah, USA

P3.19 Comparison of ice particle size distributions observed during MC3E in trailing stratiform outflow with NU-WRF simulations using diagnostic and prognostic droplet number concentrations
Ann Fridlind*[1], Xiaowen Li[2,3], Di Wu[2,4], Marcus van Lier-Walqui[1,5], Wei-Kuo Tao[2], Andrew Ackerman[1], Greg McFarquhar[6], Wei Wu[6], Xiquan Dong[7], Jingyu Wang[7]
[1]NASA GISS, USA, [2]NASA GSFC, USA, [3]Morgan State University, USA, [4]Science Systems and Applications, Inc., USA, [5]Columbia University, USA, [6]University of Illinois, USA, [7]University of North Dakota, USA

P3.20 Analysis of convective updraft characteristics: Comparing models and observations using KDP columns
Marcus van Lier-Walqui*[1,2], Ann Fridlind[2], Andrew Ackerman[2], Di Wu[3,4], Xiaowen Li[5,4], Wei-Kuo Tao[4], Pavlos Kollias[6], Alexander Ryzhkov[7,8], Scott Collis[9]
[1]Columbia University, USA, [2]NASA Goddard Institute for Space Studies, USA, [3]Science Systems and Applicaitons Inc., USA, [4]NASA Goddard Space Flight Center, USA, [5]Morgan State University, USA, [6]Stonybrook University, USA, [7]University of Oklahoma, USA, [8]NOAA National Severe Storms Laboratory, USA, [9]Argonne National Laboratory, USA

P3.21 Application of High Speed Imaging (HSI) probe in the characterization of glaciated and mixed-phase conditions in deep convective clouds
Biagio Esposito*[1], Alexei Korolev[2], Mengistu Wolde[3]
[1]Italian Aerospace Research Centre, Italy, [2]Environment Canada, Canada, [3]National Research Council, Canada

P3.22 Characterization of tropical convective cloud structure using an airborne G-band Radiometer and W-band cloud radar in the HIWC environment
Mengistu Wolde*[1], Cuong Nguyen[1], Philip Gabriel[2], Alexei Korolev[3]
[1]National Research Council of Canada, Canada, [2]General Analytics LLC, USA, [3]Environment and Climate Change Canada, Canada

Return to Main Menu

P4 Mixed phase clouds

1.30 – 3.00pm: Poster Session 1, Monday July 25th , *Marquee*

P4.1 Analysis on the microphysical features of raindrop size distribution under different synoptic systems in mountainous area Fujian
Lin Wen*[1], Lin Changcheng[1], Yao Zhanyu[2], Chen Binbin[1], Li Dan[1], Zheng Wenjun[3]
[1]Fujian Meteorological Science Institute, China, [2]Chinese Academy of Meteorological Science, China, [3]Youxi Meteorological Bureau, China

P4.2 Investigation of Riming within Mixed-phase Stratiform Clouds Using Weather Research and Forecasting (WRF) Model
Tuanjie Hou*, Hengchi Lei, Zhaoxia Hu
Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P4.3 Investigation of Mass-Dimension Relationship Parameters Within a Surface of Equally Realizable Solutions
Joseph Finlon*[1,3], Greg McFarquhar[1,3], Robert Rauber[1], Brian Jewett[1], David Plummer[1,2], Roy Rasmussen[3]
[1]University of Illinois at Urbana-Champaign, USA, [2]University of Wyoming, USA, [3]National Center for Atmospheric Research, USA

P4.4 Diffusion processes in mixed-phase clouds involving direct particle interactions
Manuel Baumgartner*, Peter Spichtinger
Johannes Gutenberg University, Germany

P4.5 Aerosol-cloud interactions over the Arctic using the Canadian atmospheric chemistry model GEM-MACH
Ana Cirisan*[1], Sylvie Gravel[2], Wanmin Gong[3], Vickie Irish[4], Allan Bertram[4], Éric Girard[1]
[1]Université du Québec à Montréal, Canada, [2]Canadian Meteorological Centre, Canada, [3]Environment Canada, Canada, [4]Department of Chemistry, The University of British Columbia, Canada

P4.6 Modeling the melting of graupel and hail in a bulk microphysics parameterization
Axel Seifert*[1], Vivek Sant[2]
[1]Deutscher Wetterdienst, Germany, [2]Max Planck Institute for Meteorology, Germany

P4.7 Implementing ice microphysics to a large eddy simulation model coupled with sectional aerosol module
Jaakko Ahola*[1,3], Tomi Raatikainen[1], Juha Tonttila[2], Sami Romakkaniemi[2], Hannele Korhonen[1]
[1]Finnish Meteorological Institute, Finland, [2]Finnish Meteorological Institute, Finland, [3]University of Turku, Finland

P4.8 Model simulations with COSMO-SPECS: Application of prognostic INP description for stratiform clouds
Martin Simmel*[1], Matthias Lieber[2], Oswald Knoth[1], Ina Tegen[1]
[1]TROPOS Leibniz Institute for Tropospheric Research, Germany, [2]Center for Information Services and High Performance Computing (ZIH), TU Dresden, Germany

P4.9 Comparison of large eddy simulation models for arctic clouds
Tomi Raatikainen*[1], Jaakko Ahola[1], Juha Tonttila[2], Sami Romakkaniemi[2], Ari Laaksonen[1], Hannele Korhonen[1]
[1]Finnish Meteorological Institute, Finland, [2]Finnish Meteorological Institute, Finland

P4.10 The Importance of Soil Dust for Mixed-phase Clouds in Global Climate Models
Luisa Ickes*, Tanja Stanelle, Ulrike Lohmann
Institute for Atmospheric and Climate Science, Switzerland

P4.11 Aircraft measurements of mixed-phase clouds versus cloud-resolving modeling studies in Northern China
Xueliang Guo*, Shichao Zhu, Guangxian Lu, Lijun Guo
Chinese Academy of Meteorological Sciences, China

P4.12 Formation and development of orographic mixed phase clouds in real cases
Olga Henneberg*, Ulrike Lohmann, Jan Henneberger
ETH Zurich, Switzerland

P4.13 An LES study on the role of ship induced ACI in mixed-phase stratocumulus
Anna Possner*[1], Annica Ekman[2], Ulrike Lohmann[1]
[1]ETH Zurich, Switzerland, [2]Stockholm University, Sweden

P4.14 The evolution and precipitation production of an orographic wintertime cloud with freezing drizzle
Sarah Tessendorf*[1], Jeffrey French[2], Courtney Weeks[1], Roy Rasmussen[1], Bart Geerts[2], Binod Pokharel[2], Lulin Xue[1], Pat Holbrook[3], Derek Blestrud[3], Melvin Kunkel[3], Shaun Parkinson[3]
[1]NCAR/RAL, USA, [2]University of Wyoming, USA, [3]Idaho Power Company, USA

P4.15 Modelling of water stable isotope ratios in a 1.5D bin-resolved microphysics model
Andrea Flossmann*[1,2], Wolfram Wobrock[1,2]
[1]LaMP/UBP, France, [2]INSU/CNRS, France

P4.16 Ground based in situ measurements of arctic cloud microphysical and optical properties at Mount Zeppelin, Svalbard
Guyot gwennolé*[1], Jourdan Olivier[1], Olofson Frans[1], Schwarzenboeck Alfons[1], Gourbeyre Christophe[1], Febvre Guy[1], Dupuy Régis[1], Bernard Christophe[2], Tunved Peter[3], Ancellet Gérard[4], Law Kathy[4], Wobrock Wolfram[1],

Shcherbakov Valery[1]
[1]LaMP, France, [2]OPGC, France, [3]Department of Applied Environmental Science, Sweden, [4]LATMOS, France

P4.17 Identification of super-cooled liquid layers in mixed-phase clouds based on cloud radar observations
Anne Hirsikko[1], Ewan O'Connor[1,2], Mika Komppula[3], Sami Romakkaniemi*[3]
[1]Finnish Meteorological Institute, Finland, [2]University of Reading, UK, [3]Finnish Meteorological Institute, Finland

P4.18 Understanding microphysical controls on arctic stratus clouds: A comparison of high-resolution NWP models during the ASCOS field campaign
Christopher Dearden*[1], Robin Stevens[2], Anna Possner[3]
[1]University of Manchester, UK, [2]University of Leeds, UK, [3]ETH, Switzerland

P4.19 Response of mixed-phase boundary layer clouds with predominantly rapid or slow ice nucleation processes to cloud-top temperature trend
Ann Fridlind*[1], Alexander Avramov[2], Andrew Ackerman[1], Peter Alpert[3], Daniel Knopf[4], Paul DeMott[5], Sarah Brooks[6], Andrew Glen[6]
[1]NASA GISS, USA, [2]MIT, USA, [3]CNRS, France, [4]Stony Brook University, USA, [5]Colorado State University, USA, [6]Texas A&M University, USA

P4.20 A model for a turbulent mixed-phase cloud
Ben Devenish
Met Office, UK

Return to Main Menu

P5 Cirrus clouds

1.30 – 3.00pm: Poster Session 4, Thursday July 28th , *Renold C floor foyer*

P5.1 Impact of nucleation rates on ice crystal number concentrations in cirrus clouds
Patrik Marschalik*, Peter Spichtinger
Johannes Gutenberg University, Germany

P5.2 Influence of soot number emissions on contrail cirrus life cycle and climate impact
Andreas Bier*, Ulrike Burkhardt
DLR-Institute of Atmospheric Science, Germany

P5.3 Redistribution of water vapour and aerosol particles by cirrus clouds
Philipp Reutter*[1], Ralf Weigel[1], Max Port[1], Christian Rolf[2], Martina Krämer[2], Martin Schnaiter[3], Emma Järvinen[3], Silke Groß[4], Martin Wirth[4], Peter Spichtinger[1], Stephan Borrmann[1]
[1]University of Mainz, Germany, [2]Forschungszentrum Jülich, Germany, [3]Karlsruhe Institute of Technology, Germany, [4]German Aerospace Center (DLR), Germany

P5.4 Subvisible cirrus clouds - a dynamical systems approach
Peter Spichtinger*, Elisa Spreitzer, Patrik Marschalik
Johannes Gutenberg University, Germany

P5.5 Microphysical properties of cirrus clouds between 75N and 25S derived from extensive airborne in-situ observations
Martina Krämer*[1], Armin Afchine[1], Linnea Avallone[2,12], Darrel Baumgardner[3], Stephan Borrmann[4], Bernhard Buchholz[5], Anja Costa[3], Volker Ebert[5], David Fahey[6], Robert Herman[7], Eric Jensen[8], Marcus Klingebiel[4], P.Lawson S.Woods[9], Anna Luebke[1,12], Jessica Meyer[1], Christian Rolf[1], A.Rollins T.Thornberry[6], Jessica Smith[10], Nicole Spelten[1], Martin Zöger[11]
[1]Research Center Jülich, IEK-7, Germany, [2]NSF, USA, [3]DMT, USA, [4]Univ. Mainz, Germany, [5]PTB, Germany, [6]NOAA, USA, [7]JPL, USA, [8]NASA, USA, [9]SPEC Inc., USA, [10]Harvard Univ., USA, [11]DLR-FX, Germany, [12]formerly LASP, USA

P5.6 A Microphysics Guide to Cirrus Clouds - Part I: Cirrus Types
Martina Krämer*[1], Christian Rolf[1], Anna Luebke[1,9], Armin Afchine[1], Nicole Spelten[1], Anja Costa[1], Jessica Meyer[1], Martin Zöger[2], Jessica Smith[3], Robert Herman[4], Bernhard Buchholz[5], Volker Ebert[5], Darrel Baumgardner[6], Stephan Borrmann[7], Marcus Klingebiel[7], Linnea Avallone[8,9]
[1]Research Center Jülich, IEK-7, Germany, [2]DLR-FX, Germany, [3]Harvard Univ., USA, [4]JPL, USA, [5]PTB, Germany, [6]DMT, USA, [7]Univ. Mainz, Germany, [8]NSF, USA, [9]formerly LASP, USA

P5.7 Cirrus clouds observations over the Amazon: Results from 3 lidar systems and radiosondings during the GoAmazon 2014/15 experiment
Diego Gouveia*[1], Henrique Barbosa[1], Boris Barja[3], Eduardo Landulfo[2]
[1]Physics Institute. São Paulo University (USP), Brazil, [2]Centro de Lasers e Aplicações, Instituto de Pesquisas Energéticas e Nucleares (IPEN), Brazil, [3]Atmospheric Optics Group of Camagüey. Meteorological Institute of Cuba, Cuba

P5.8 Satellite retrievals of the ice crystal number concentration
Odran Sourdeval*[1], Edward Gryspeerdt[1], Julien Delanoë[3], Philipp Kühne[1], Friederike Hemmer[2], Johannes Quaas[1]
[1]Universität Leipzig, Germany, [2]Université Lille1, France, [3]LATMOS, France

P5.9 Hysteresis of ice cloud coverage in a climate model
Ulrike Burkhardt
DLR Institute for Atmospheric Physics, Germany

P5.10 Three-dimensional structure of ice supersaturation and cirrus clouds
Ilona Glatt*[1], Peter Spichtinger[1], Patrick Neis[2], Andreas Petzold[2]
[1]Institute of Atmospheric Physics, Johannes Gutenberg-University Mainz, Germany, [2]Forschungszentrum Jülich GmbH, Instut für Energie- und Klimaforschung, Germany

P5.11 Derivation of physical and optical properties of midlatitude cirrus ice crystals for a size-resolved cloud microphysics model
Ann Fridlind*[1], Rachel Atlas[2], Bastiaan van Diedenhoven[1,3], Junshik Um[4], Greg McFarquhar[4], Andrew Ackerman[1], Elisabeth Moyer[2], Paul Lawson[5]
[1]NASA GISS, USA, [2]University of Chicago, USA, [3]Columbia University, USA, [4]University of Illinois, USA, [5]Spec Inc., USA

P5.12 Can detailed simulations reproduce general ice size distribution properties observed within a widespread mid-latitude synoptic cirrus deck?
Ann Fridlind*[1], Rachel Atlas[2], Robert Jackson[3,4], Greg McFarquhar[3], Andrew Ackerman[1], Daniel Knopf[5], Elisabeth Moyer[2], Paul Lawson[6]
[1]NASA GISS, USA, [2]University of Chicago, USA, [3]University of Illinois, USA,

[4]University of Wyoming, USA, [5]Stony Brook University, USA, [6]Spec Inc., USA

Return to Main Menu

P6 Cloud electrification

1.30 – 3.00pm: Poster Session 3, Wednesday July 27th , *Marquee*

P6.1 Numerical study of a severe thunderstorm formed over Bulgaria
Boryana Tsenova*[1], Tsvetelina Dimitrova[2], Denitsa Barakova[1,3], Rumjana Mitzeva[3]
[1]National Institute of Meteorology and Hydrology, Bulgaria, [2]Agency Hail Suppression, Bulgaria, [3]Sofia University, Bulgaria

P6.2 Numerical investigation for a deep convection electrification and lightning with a 1.5D aerosol-cloud bin model
Yi Yang*, Jiming Sun
Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P6.3 Cloud and Precipitation in the Brazil: The CHUVA Project
Luiz A. T. Machado*[1], Micael A. Cecchini[1], Enrique V. Mattos[1], Thiago Biscaro[1], Alan J. P. Calheiros[1], Rachel Albrecht[2], Earle Williams[3], Jennifer Comstock[4], Manfred Wendisch[5]
[1]INPE, Brazil, [2]USP, Brazil, [3]MIT, USA, [4]PNNL, USA, [5]Leipzig Institute for Meteorology, Germany

P6.4 Evaluation of the Lightning Potential Index in the COSMO-Model
Ulrich Blahak*, Kathrin Wapler
German Meteorological Service (DWD), Germany

P6.5 Explicit simulation of storm electrification processes in a mesoscale model and comparaison to LMA observations taken during the HyMeX experiment.
Jean-Pierre Pinty*[1], Christophe Bovalo[1], Eric Defer[1], Evelyne Richard[1], Paul Krehbiel[2], William Rison[2], Ronald Thomas[2]
[1]Laboratoire d'Aérologie, UMR5560, CNRS/Université de Toulouse, France, [2]New Mexico Tech., USA

Return to Main Menu

P7 Entrainment and mixing

1.30 – 3.00pm: Poster Session 3, Wednesday July 27th , *Renold C floor foyer*

P7.1 Mixing at the boundary between a turbulent cloud and non-turbulent environment.
Paul Goetzfried*[1], Bipin Kumar[2], Raymond Shaw[3], Joerg Schumacher[1]
[1]Technische Universität Ilmenau, Germany, [2]Indian Institute of Tropical Meteorology, India, [3]Michigan Technological University, USA

P7.2 Theoretical investigation of mixing in warm clouds. Homogeneous mixing
Mark Pinsky*[1], Alexander Khain[1], Alexei Korolev[2]
[1]The Hebrew University of Jerusalem, Israel, [2]Environment Canada, Canada

P7.3 Theoretical analysis of mixing in liquid clouds: Inhomogeneous mixing
Alexander Khain*[1], Mark Pinsky[1], Alexey Korolev[2]
[1]The Hebrew University of Jerusalem, Israel, [2]The Hebrew University of Jerusalem, Israel, [3]Environment Canada, Canada

P7.4 Examination of the bimodal droplet spectra observed during COPE
Jason Sulskis, Jeff French*, David Leon, Robert Jackson
University of Wyoming, USA

P7.5 The entrainment velocity in stratocumulus driven by radiative and evaporative cooling
Alberto de Lozar*, Juan Pedro Mellado
Max Planck Institute for Meteorology, Germany

P7.6 Wind-shear effects in stratocumulus-top entrainment
Juan Pedro Mellado*, Bernhard Schulz, Alberto de Lozar
Max Planck Institute for Meteorology, Germany

P7.7 A simple model for entrainment and mixing in growing deep cumulus updrafts
Hugh Morrison
NCAR, USA

P7.8 Are LES model simulated cloud microphysical relationships consistent with in-situ measured ones for stratocumulus clouds?
Kyoung Ock Choi*, Seong Soo Yum
Yonsei University, Republic of Korea

P7.9 Characteristics of cloud microphysical relationships in the clouds measured during the GoAmazon project and their implication on entrainment and mixing processes
Jae Min Yeom*[1], Seong Soo Yum[1], Fan Mei[2], Beat Schmid[2], Jennifer Comstock[2], Luiz Machado[3], Micael Cecchini[3]
[1]Yonsei University, Republic of Korea, [2]Pacific Northwest National Laboratory, USA, [3]Instituto Nacional de Pesquisas Espaciais (INPE), Centro de Previsão de Tempo e Estudos Climáticos (CPTEC), Brazil

P7.10 Local entrainment rates and anisotropy of entraining structures in laboratory analogues of cumulus and stratocumulus clouds.
Anna Górska*[1,2], Szymon Malinowski[1,3], Jacob Fugal[2,3], Wojciech Kumala[1]
[1]University of Warsaw, Faculty of Physics, Institute of Geophysics, Poland, [2]Max Planck Institute for Chemistry, Germany, [3]Institute for Atmospheric Physics, Johannes Gutenberg University of Mainz, Germany

P7.11 Effect of Entrainment-Mixing on Cloud Microphysics: A Study using In-situ Observations
Sudarsan Bera[1], Thara Prabhakaran*[1], Wojciech Grabowski[2]
[1]Indian Institute of Tropical Meteorology, India, [2]National Centre for Atmospheric Research, USA

P7.12 Large-eddy simulation of the stratocumulus-topped boundary layer: a study of entrainment and anisotropic cloud-top turbulence
Jesper G. Pedersen*[1], Szymon P. Malinowski[1], Wojciech W. Grabowski[2]
[1]University of Warsaw, Poland, [2]National Center for Atmospheric Research, USA

P7.13 The role of updraft merging in the development of deep convection
Ian Glenn, Steven Krueger*
University of Utah, USA

Return to Main Menu

P8 Mid-latitude cloud systems

1.30 – 3.00pm: Poster Session 3, Wednesday July 27th , *Marquee*

P8.1 The simulation and mechanism analysis of '721' torrential rain in Beijing
Fan Ping
Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P8.2 721-Beijing rainstorm process analysis caused by the Hetao cyclone development eastward shift
xuefeng meng
Inner Mongolia Autonomous Region Meteorological Observatory, China

P8.3 Characteristics of Cloud Chart and Environment Field on a Heavy Rain in Shanxi Province in July 2011
Zhao Guixiang*[1], Zhao Jianfeng[1], YANG dong[1], PENG Aiguo[2], ZHANG Chaoming[3]
[1]Shanxi Meteorological Office, China, [2]Pianguan Weather Station, China, [3]Shanxi Atmospheric sounding technology support center, China

P8.4 Circulation induced by low level radiative cooling
Ann Kristin Naumann*, Bjorn Stevens, Cathy Hohenegger
Max Planck Institute for Meteorology, Germany

P8.5 A Modeling Study of Parameterization Schemes for Depositional Growth of Ice Crystal: Four Rainfall Cases over Tropics and Midlatitudes
Xiaofan Li
Zhejiang University, China

P8.6 Effects of Large-Scale Forcing on Cloud Microphysical and Rainfall Responses to Radiation during the Landfall of Severe Tropical Storm Bilis (2006)
Guoqing Zhai*, Xiaofan Xiaofan
Zhejiang University, China

P8.7 Characteristics of wintertime snowfall for the last decade in the Yeongdong region of Korea
Byung-Gon Kim*[1], Seung-Hee Eun[1], Dea-Kyeong Seong[1], A-Reum Ko[2], Byeong-Cheol Choi[2], Ki-Ho Chang[2], Won-Seok Seo[3]
[1]Gangneung-Wonju National University, Republic of Korea, [2]National Institute of Meteorological Study, Republic of Korea, [3]Korean Polar Research Institute, Republic of Korea

P8.8 Radar-derived structural characteristics and precipitation production of convection observed during the COnvective Precipitation Experiment (COPE)
David Plummer*[1], David Leon[1], Jeffrey French[1], Robert Jackson[1], Ryan Neely[2,3], Alan Blyth[2,3], Lindsay Bennett[2,3], David Dufton[2]
[1]University of Wyoming, USA, [2]University of Leeds, UK, [3]National Centre for Atmospheric Science, UK

P8.9 Modeling of daytime convective development over land with COSMO-EULAG
Bogdan Rosa*[1], Wojciech Grabowski[2], Michal Ziemianski[1], Damian Wójcik[1]
[1]Institute of Meteorology and Water Management - National Research Institute, Poland, [2]NCAR, USA

P8.10 Evaluation of bulk microphysics schemes in simulated snow clouds in the Hokuriku district, Japan
Tetsuya Kawano*[1], Takumi Honda[2], Kenji Suzuki[3], Soichiro Sugimoto[4], Tsutomu Takahashi[5]
[1]Kyushu University, Japan, [2]RIKEN, Japan, [3]Yamaguchi University, Japan, [4]Central Research Institute of Electric Power Industry, Japan, [5]Honolulu, USA

P8.11 The interaction between ice nuclei and deep convection in Southeast China
Xin Deng*, Huiwen Xue
Peking University, China

P8.12 Improved predictions of atmospheric icing in Norway
Bjørg Jenny Engdahl*[1,2], Jón Egill Kristjánsson[2], Gregory Thompson[3], Bjørn Egil Nygaard[4], Lisa Bengtsson[5], Harold McInnes[1]
[1]Norwegian Meteorological Institute, Norway, [2]University of Oslo, Norway, [3]National Center for Atmospheric Research, USA, [4]Kjeller Vindteknikk, Norway, [5]Swedish Meteorological and Hydrological Institute, Sweden

P8.13 On the effect of aerosols on orographic cloud and precipitation
Yan Yin*, Hui Xiao
Nanjing University of Information Science and Technology, China

P8.14 Spatio-temporal characterization of warm convective cloud fields over Central Europe
Sebastian Bley*, Hartwig Deneke, Fabian Senf
Leibniz Institute for Tropospheric Research, Germany

P8.15 Comparing the spatio-temporal variability of warm cumulus clouds from ICON-LES, COSMO-DE modelling and Meteosat observations
Sebastian Bley*[1], Hartwig Deneke[1], Fabian Senf[1], Cintia Carbajal Henken[2], Odran Sourdeval[3]
[1]Leibniz Institute for Tropospheric Research, Germany, [2]FU Berlin, Institute for Space Sciences, Germany, [3]University of Leipzig, Germany

P8.16 Aerosol-Cloud interactions in orographic wave clouds (ICE-L)
Annette Miltenberger*[1], Paul Field[1,2], Adrian Hill[2], Ben Shipway[2]
[1]University of Leeds, UK, [2]MetOffice, UK

P8.17 The effects of atmospheric aerosol on the warm rain process: two case studies during the COnvective Precipitation Experiment (COPE) and numerical simulations
Zixia Liu*[1], Thomas W. Choularton[1], Jonathan Crosier[1,4], Jonathan W. Taylor[1], Keith N. Bower[1], Paul J. Connolly[1], Martin Gallagher[1], Alan M. Blyth[2], Philip R. A. Brown[3]
[1]Center for Atmospheric Science, School of Earth, Atmospheric and Environmental Sciences, University of Manchester, UK, [2]National Centre for Atmospheric Science, University of Leeds, UK, [3]Met Office, UK, [4]National Centre for Atmospheric Science, University of Manchester, UK

P8.18 Evaluating the role of precipitation-sized ice particles in the simulations of deep convection with a multi-moment four-category ice microphysics scheme
Tzu-Chin Tsai*[1], Jen-Ping Chen[1], Xiquan Dong[2], Jingjing Tian[2], Jingyu Wang[2]
[1]National Taiwan University, Taiwan, [2]University of North Dakota, Grand Forks, USA

P8.19 Monitoring fog at Sofia Airport using GNSS tropospheric products and Sofia Stability Index
Anastasiya Stoycheva*[1], Ilian Manafov[2], Keranka Vassileva[3], Guergana Guerova[4]
[1]National Institute of Meteorology and Hydrology, Bulgaria, [2]Bulatsa, Bulgaria, [3]National Institute of Geophysics, Geodesy and Geography, BAS, Bulgaria, [4]Sofia University, Department of Meteorology and Geophysics, Bulgaria

P8.20 Cloud Characteristics over Beijing Revealed with IAP's Ka Band Doppler Radar
Daren LU*, Hui WANG, Jinli LIU
Institute of Atmospheric Physics,CAS, China

P8.21 Evaluation of cloud properties in Environment Canada's high-resolution NWP simulations with satellite-borne radar, lidar, and aircraft in-situ observations
Zhipeng Qu*[1], Alexei Korolev[1], Howard Barker[1], Mengistu Wolde[2], Cuong Nguyen[2], Alain Protat[3], Julien Delanoë[4], Alfons Schwarzenboeck[5], Jason Milbrandt[6], Stephane Belair[6], Jason Cole[6]
[1]Environment and Climate Change Canada, Canada, [2]National Research Council Canada, Canada, [3]Bureau of Meteorology, Australia, [4]Laboratoire Atmosphères, Milieux, Observations Spatiales, France, [5]Université Blaise Pascal, France, [6]Environment and Climate Change Canada, Canada

P8.22 Meteosat-based Characterization of the Initiation and Growth of Severe Convective Storms over Central Europe
Fabian Senf, Sebastian Bley, Daniel Merk*, Hartwig Deneke
Leibniz Institute for Tropospheric Research, Germany

P8.23 Dominant Cloud Microphysical Processes during the 2013 Southwest China Summer Floods
Yongjie Huang*[1,2], Xiaopeng Cui[1]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, China, [2]University of Chinese Academy of Sciences, China

P8.24 Cloud microphysics simulation using multi-dimensional bin-microphysics model
Akihiro Hashimoto*[1], Rhohei Misumi[2], Masataka Murakami[1]
[1]Meteorological Research Institute, Japan, [2]National Research Institute for Earth Science and Disaster Prevention, Japan

P8.25 Numerical modelling of stable radiation fog
Daniel Smith*[1], Ian Renfrew[1], Stephen Dorling[1], Jeremy Price[2]
[1]University of East Anglia, UK, [2]UK Met Office Research Unit, UK

Return to Main Menu

P9 Tropical clouds and cloud systems

1.30 – 3.00pm: Poster Session 4, Thursday July 28h, *Marquee*

P9.1 Simulation of the tropical cyclone Dumile in Meso-NH : coupling between a 2-moment microphysics scheme, an aerosol scheme inititalized with MACC analysis, and an explicit emission of sea salt
Thomas Hoarau*[1], Christelle Barthe[1], Pierre Tulet[1], Olivier Bousquet[1], Jean-Pierre Pinty[2], Marine Claeys[3], Benoît Vié[3], Julien Delanoë[4], Jacques Pelon[4]
[1]Laboratoire de l'Atmosphère et des Cyclones (UMR 8105, CNRS / Météo-France / Université de La Réunion), France, [2]Laboratoire d'Aérologie (UMR 5560, CNRS / Université de Toulouse), France, [3]CNRM-GAME (UMR 3589, CNRS / Météo-France), France, [4]LATMOS (UMR 8190, UVSQ/CNRS/UPMC-IPSL), France

P9.2 A characterization of cold pools in the West African Sahel
Miroslav Provod*[1], John Marsham[1], Douglas Parker[1], Cathryn Birch[1,2]
[1]University of Leeds, UK, [2]Met Office @ Leeds, UK

P9.3 The Impact of Biomass Burning Aerosols on Convective Cloud over the Western Pacific Warm Pool
Hsiang-He Lee*[1], Chien Wang[1,2]
[1]Singapore-MIT Alliance for Research and Technology (SMART), Singapore, [2]Department of Earth, Atmosphere and Planetary Science, MIT, USA

P9.4 Emergence of consistent reflectivity profile behavior in the tropics as observed by TRMM
Reuven H. Heiblum*[1], Orit Altaratz[1], Ilan Koren[1], Alexander Kostinski[2]
[1]Department of Earth and Planetary Sciences, Weizmann Institute of Science, Israel, [2]Department of Physics, Michigan Technological University, USA

P9.5 The Effects of Sea-Spray on Deep Convective Cloud under strong wind conditions
Jacob Shpund, Alexander Khain*, Daniel Rosenfeld
The Hebrew University of Jerusalem, Israel

P9.6 Sensitivity of precipitation to clouds over upwind ocean in the Hawaii Island
Lulin Xue*, Roy Rasmussen, Kyoko Ikeda, Martyn Clark
National Center for Atmospheric Research, USA

P9.7 Evaluating cloud processes in HadGEM-UKCA in preparation for CLARIFY
Nick Schutgens*, Duncan Watson-Parris, Zak Kipling, Philip Stier
University of Oxford, UK

P9.8 Convective invigoration in Indian monsoon a possibility ?
Thara Prabha*[1], Gayatri Kulkarni[1], Sachin Patade[1], Neelam Malap[1], Mahen Konwar[1], Murugavel P[1], Sathi Nair[1], Duncan Axisa[2], Alexander Khain[3]
[1]Indian Institute of Tropical Meteorology, India, [2]National Center for Atmospheric Research, USA, [3]HUJI, Israel

P9.9 Simulation of tropical cyclones response to aerosol type
I-Chun Tsai*[1], Jen-Ping Chen[2], Chih-Yao Yang[2]
[1]Research Center for Environmental Changes, Academia Sinica, Taiwan, [2]Department of Atmospheric Sciences, National Taiwan University, Taiwan

P9.10 Physical basis for Cloud droplet spectral broadening in the downdraft zones
Mahen Konwar, Bipin Kumar, Sudarsan Bera, T. V. Prabha*
Indian Institute of Tropical Meteorology, India

P9.11 The use of IAGOS BCP observations to evaluate satellite products developed for detecting areas of high ice water content.
Elisabeth Öström*[1], Steven J. Abel[1], Lorenzo Labrador[1], Peter N. Francis[1], Karl Beswick[2], Martin W. Gallagher[2]
[1]Met Office, UK, [2]University of Manchester, UK

P9.12 Variations of Ice Microphysical Properties in Tropical MCS Using Cloud In-Situ Data and Corresponding Radar Reflectivity Profiles
Emmanue Fontaine*[1], Delphine Leroy[1], Alfons Schwarzenboeck[1], Pierre Coutris[1], Julien Delanoë[2], Alain Protat[3], Fabien Dezitter[4], Alice Calmels[4], Walter Strapp[5], Lyle Lilie[8], Pattrick Minnis[6], Christopher Yost[7]
[1]UBP / CNRS / LaMP, France, [2]UVSQ / CNRS / LATMOS, France, [3]CAWC / BOM, France, [4]AIRBUS, France, [5]Met Analytics, Canada, [6]NASA Langley Research Center, USA, [7]Science Systems and Applications, USA, [8]Science Engineering Associates, USA

P9.13 Analysis of high-resolution cloud-precipitation distribution over Tibetan Plateteau
Jinli LIU*, Ling WANG, Daren LU, Yongheng BI
Institute of Atmospheric Physics,CAS, China

P9.14 High-resolution simulations of aerosol impacts and ice-phase microphysics in convective clouds over the Amazon
Max Heikenfeld*, Bethan White, Natalie Weigum, Laurent Labbouz, Philip Stier
Atmospheric, Oceanic and Planetary Physics, Department of Physics, University of Oxford, UK

P9.15 Real case studies of the formation of cirrus clouds in the tropical tropopause layer with a mesoscale model
Aurélien Podglajen
Laboratoire de Meteorologie Dynamique, France

P9.16 Cloud Aerosol Interactions in Southern West African Stratocumulus
Phil Rosenberg*[1], John Marsham[1], Paul Field[2,1], Adrian Hill[1]
[1]University of Leeds, UK, [2]Met Office, UK

P9.17 Raindrop spectra observations in a coastal region of eastern Mexico
Fernando García-García*, Guillermo Montero-Martínez, Omar Rivas-Hernández
Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México, Mexico

P9.18 An ensemble approach using an optimization method to weighting convective parameterizations of the regional model BRAMS
Ariane Frassoni*[1], Saulo R. Freitas[1], Eduardo F. P. da Luz[3], Haroldo F. de Campos Velho[2], Manoel A. Gan[1], João Gerd Z. de Mattos[1], Georg A. Grell[4]
[1]National Institute for Space Research, Center for Weather Forecasting and Climate Studies, Brazil, [2]Laboratory for Computing and Applied Mathematics, National Institute for Space Research, Brazil, [3]Brazilian National Centre for Monitoring and Early Warning of Natural Disasters, Brazil, [4]National Oceanic and Atmospheric Administration, USA

P9.19 Seasonal aspects of cloud radiative heating in the upper troposphere lower stratosphere in the tropics
Erik Johansson*[1,2], Abhay Devasthale[1], Tristan L'Ecuyer[4], Annica M. L. Ekman[2,3], Michael Tjernström[2,3]
[1]Atmospheric Remote Sensing, Research and development department, Swedish Meteorological and Hydrological Institute (SMHI), Sweden, [2]Department of Meteorology, Stockholm University (MISU), Sweden, [3]Bolin Center for Climate Research, Stockholm University, Sweden, [4]Department of Atmospheric and Oceanic Sciences, University of Wisconsin-Madison, USA

P9.20 Scanning Polarimetric Doppler Cloud Radar capability in characterizing the Tropical Clouds
Madhu Chandra R KALAPUREDDY*[1], Sukanya Patra[1], Soumojit Bose[1,2]
[1]Indian Institute of Tropical Meteorology (IITM), India, [2]Birla Institute of Technology(BIT), India

P9.21 Impacts of mesoscale convective systems development on the distribution of precipitation over Costa Rica.
Ana María Durán-Quesada*[1,2], Daniel Poleo[3], Jorge A Amador[1,2]
[1]Department of Atmospheric, Oceanic and Planetary Physics. School of Physics. University of Costa Rica, Costa Rica, [2]Center for Geophysical Research. University of Costa Rica., Costa Rica, [3]National Meteorological Institute, Costa Rica., Costa Rica

P9.22 Numerical Simulation of Convective Cold Pools Observed during the DYNAMO Field Campaign
Adam Kochanski, Steven Krueger*
University of Utah, USA

P9.23 Aerosol cloud interaction in the West coast of India and Arabian sea during the drought year of 2015
Thara Prabha*[1], Mahen Konwar[1], Mercy Varghese[1], Murugavel P[1], Gayatri Kulkarni[1], Sathi Nair[1], Sachin Patade[1], Yogesh Tiwari[1], Balaji B[1], Resmi E. A[1], Subharthi Chowdhuri[1], Aswin T[3], Jayarao K[1], Nandakumar K[3], Safai P. D.[1], Rajeevan M[2]
[1]Indian Institute of Tropical Meteorology, India, [2]Ministry of Earth Sciences, India, [3]M. G. University, India

Return to Main Menu

P10 Polar clouds and cloud systems

1.30 – 3.00pm: Poster Session 3, Wednesday July 27th , *Renold C floor foyer*

P10.1 Characteristics of clouds at the northern edge of the Southern Ocean: A comparison between ground-based lidar and satellite observations
Simon Alexander*[1], Alain Protat[2]
[1]Australian Antarctic Division, Australia, [2]Bureau of Meteorology, Australia

P10.2 Regional differences in Antarctic Clouds and Aerosols – Part one Observations.
Tom Lachlan-Cope*[1], Constantino Listowski[1], Amélie Kirchgaessner[1], Russ Ladkin[1], Sebastian O'Shea[2], Keith Bower[2], Mike Flynn[2], Tom Choularton[2]
[1]Britsh Antarctic Survey, UK, [2]School of Earth, Atmospheric and Environmental Sciences, University of Manchester, UK

P10.3 Characterization of clouds during ACSE 2014
Peggy Achtert*[1], Ian M. Brooks[1], Georgia Sotiropoulou[2], Joseph Sedlar[2], Michael Tjernström[2], Barbara J. Brooks[5], P. Ola G. Perrson[3], John Prytherch[1], Dominic J. Salisbury[1], Matthew D. Shupe[3], Paul E. Johnston[4], Dan Wolfe[4]
[1]School of Earth and Environment, UK, [2]Department of Meteorology & Bolin Centre for Climate Research, Sweden, [3]NOAA Earth System Research Laboratory, USA, [4]Earth System Research Laboratory, USA, [5]National Centre for Atmospheric Science, UK

P10.4 Mixed-phase Convective Clouds in the High-latitude Boundary Layer over Water: evaluation of convection parameterizations with LES simulations and observations
Yonggang Wang[1], Lulin Xue[2], Bart Geerts*[1]
[1]University of Wyoming, USA, [2]NCAR, USA

P10.5 Impact of the Convection on the Arctic Climate during Wintertime
Eun-Hyuk Baek*[1], Sungsu Park[2], Baek-Min Kim[1]
[1]Korea Polar Research Institue, Republic of Korea, [2]Seoul National University, Republic of Korea

P10.6 A case study evaluating Global Precipitation Measurement (GPM) observations of precipitation over the Southern Ocean
Eunmi Ahn*[1], Yi Huang[1], Thomas Chubb[2], Steven Siems[1], Michael Manton[1]
[1]Monash University, Australia, [2]Snowy Hydro, Australia

P10.7 In-situ observations of supercooled liquid water in a post-frontal environment over the Southern Ocean
Yi Huang*[1], Thomas Chubb[2], Steven Siems[1], Michael Manton[1], Eunmi Ahn[1]
[1]Monash University, Australia, [2]Snowy Hydro, Australia

P10.8 Analyzing the dissipation of an Arctic mixed-phase cloud during the ASCOS field campaign
Katharina Weixler*[1], Annica Ekman[2], Corinna Hoose[1], Marco Paukert[1], Joseph Sedlar[2], Michael Tjernström[2]
[1]Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology, Germany, [2]Department of Meteorology, Stockholm University, Sweden

P10.9 Impact of aerosol and meteorological conditions on the persistence of Arctic mixed-phase cloud
Shizuo Fu*, Huiwen Xue
Peking University, China

P10.10 Regional differences in Antarctic Clouds and Aerosols - Part two Modelling
Constantino Listowski*[1], Tom Lachlan-Cope[1], Amélie Kirchgaessner[1], Russ Ladkin[1], Sebastian O'shea[2], Keith Bower[2], Mike Flynn[2], Tom Choularton[2]
[1]British Antarctic Survey, NERC, UK, [2]School of Earth, Atmospheric and Environmental Sciences, University of Manchester, UK

P10.11 The effects of microphysics on convection-permitting simulations of a Southern Ocean cyclone
Kalli Furtado*[1], Paul Field[1,2]
[1]Met Office, UK, [2]University of Leeds, UK

P10.12 Lidar observations of the effect of gravity-wave activity on the properties of Polar Stratospheric Clouds
Peggy Achtert*[1], Matthias Tesche[2], Marin Stanev[3], Benedikt Ehard[4]
[1]University of Leeds, UK, [2]University of Hertfordshire, UK, [3]Stockholm University, Sweden, [4]DLR, Germany

P10.13 The Dry Ice Clouds of Summit, Greenland: A study of Properies and Characteristics
Claire Pettersen*[1], Ralf Bennartz[2,1], Aronne Merrelli[1], Dave Turner[3], Matthew Shupe[4]
[1]University of Wisconsin - Madison, USA, [2]Vanderbilt University, USA, [3]National Severe Storms Laboratory, USA, [4]NOAA Earth System Research Laboratory, USA

P10.14 Southern Ocean Cloud - Radiation Interactions and their representation in the Australian regional forecast model as revealed by Research Vessel Investigator observations
Alain Protat
Australian Bureau of Meteorology, Australia

P10.15 Dissecting the role of various precipitation micro-physical processes in Arctic clouds using ICECAPS observations
Ralf Bennartz[1,2]
[1]Vanderbilt University, USA, [2]University of Wisconsin - Madison, USA

P10.16 Evaluation of Arctic mixed-phase clouds simulated by a habit-prediction model

Tempei Hashino*[1], Gijs de Boer[2], Hajime Okamoto[1]
[1]Kyushu University, Japan, [2]University of Colorado, USA

Return to Main Menu

P11 Secondary ice production

1.30 – 3.00pm: Poster Session 3, Wednesday July 27th , *Marquee*

P11.1 Highly Active Ice Particle Production in Hokuriku Winter Snow Clouds - Videosonde and HYVIS Observations
Tsutomu Takahashi*[1], Soichiro Sugimoto[2]
[1]Emeritus Prof. Kyushu Univ., Japan, [2]CRIEPI, Japan

P11.2 Sensitivity of structure and polarimetric characteristic of a squall line to microphysical parameters
Eyal Ilotoviz*[1], Alexander Khain[1], Vaughan Phillips[2], Alexander Ryzhkov[3], Jacob Shpund[1]
[1]The Hebrew University of Jerusalem, Israel, [2]Lund University, Sweden, [3]University of Oklahoma, USA

P11.3 Laboratory studies of the rime-splintering process.
Andreas Tofaris*, Paul Connolly, James Dorsey
University of Manchester, UK

P11.4 The role of submicron aerosol particles in the formation of high ice particle concentrations in mesoscale convective systems
Luis Ladino*[1], Alexei Korolev[1], Ivan Heckman[1], Mengistu Wolde[2]
[1]Environment and Climate Change Canada, Canada, [2]National Research Council of Canada, Canada

P11.5 Comparative study of very efficient ice nucleating particles in contact and immersion freezing mode
Nadine Hoffmann*[1], Michael Koch[1], Hanna Guggenberger[1], Alexei Kiselev[1], Thomas Leisner[1,2]
[1]Karlsruhe Institute of Technology, Institute of Meteorology and Climate Research, Germany, [2]Heidelberg University, Institute of Environmental Physics, Germany

Return to Main Menu

P12 Aerosol-cloud-precipitation-interactions and processing

1.30 – 3.00pm: Poster Session 3, Wednesday July 27th , *Marquee*

P12.1 Characteristics of recent severe haze events in Korea and possible inadvertent weather modification
Seung-Hee Eun*[1], Byung Gon Kim[1], Kyu-Min Lee[1], Jin-Soo Park[2]
[1]Gangneung-Wonju National University, Republic of Korea, [2]National Institute of Environmental Research, Republic of Korea

P12.2 Numerical Simulation of Dust−Cloud Interactions Using a Regional Model
Yi-Chiu Lin*[1], Jen-Ping Chen[2]
[1]Taiwan Typhoon and Flood Research Institute, National Applied Research Laboratories, Taiwan, [2]Department of Atmospheric Sciences, National Taiwan University, Taiwan

P12.3 From invigoration to suppression – the aerosol effect on warm convective clouds
Guy Dagan*, Ilan Koren, Orit Altaratz, Reuven H. Heiblum
1Department of Earth and Planetary SWeizmann Institute of Science, Israel

P12.4 Ice in Clouds Experiment - Dust (ICE-D): In-situ aircraft measurements of cloud evolution
Richard Cotton
Met Office, UK

P12.5 Marine Boundary Layer Aerosol Variability: a Budget Approach
Johannes Mohrmann*, Robert Wood
University of Washington, USA

P12.6 Model simulations with COSMO-SPECS: New parameterizations of heterogeneous freezing modes
Karoline Diehl*[1], Verena Grützun[3], Jens Stoll[2], Martin Simmel[2], Oswald Knoth[2], Ralf Wolke[2]
[1]Institute of Atmospheric Physics, University, Germany, [2]Leibniz Institute for Tropospheric Research, Germany, [3]Meteorological Institute, University, Germany

P12.7 LACIS-T - A wind tunnel for investigating the Interactions between Cloud Microphysics and Turbulence
Jens Voigtländer*[1], Dennis Niedermeier[1], Holger Siebert[1], Jörg Schumacher[2], Raymond A. Shaw[3], Frank Stratmann[1]
[1]Leibniz Institute for Tropospheric Research (TROPOS), Germany, [2]Ilmenau University of Technology, Germany, [3]Michigan Technological University, USA

P12.8 Impacts of Aerosols Microphysics on Aerosol- Cloud-Interaction in a series of heavy haze-fog events
Chunhong Zhou
Institute of Atmospheric Composition, Chinese Academy of Meteorological Sciences,, China

P12.9 Spatial and temporal variations in aerosol properties in convection-permitting simulations in an idealised tropical marine domain
Celine Planche*[1,2], Graham Mann[2,3], Mohit Dalvi[4], Kenneth Carslaw[2], Paul Field[4], John Marsham[0]
[1]Université Clermont Auvergne, Laboratoire de Météorologie Physique, CNRS, INSU, UMR 6016, France, [2]School of Earth and Environment, ICAS, University of Leeds, UK, [3]National Centre for Atmospheric Sciences, School of Earth and Environment, University of Leeds, UK, [4]Met Office, UK

P12.10 In-cloud measurements highlighting the role of chemical composition in cloud droplet activation
Olli Väisänen*[1], Arttu Ylisirniö[1], Pasi Miettinen[1], Liqing Hao[1], Harri Portin[2], Antti Ruuskanen[2], Sami Romakkaniemi[2], Kari Lehtinen[1,2], Annele Virtanen[1]
[1]University of Eastern Finland, Finland, [2]Finnish Meteorological Institute, Finland

P12.11 Investigating the influence of water diffusion through aerosol particles on ice nucleation
Kathryn Fowler*, Paul Connolly, David Topping
The University of Manchester, UK

P12.12 GIANT AEROSOLS OBSERVATIONS AND EFFECTS
Pilar Gumà-Claramunt, Fabio Madonna*, Aldo Amodeo, Gelsomina Pappalardo
Istituto di Metodologie per l'Analisi Ambientale Consiglio Nazionale delle Ricerche CNR-IMAA, Italy

P12.13 CEMBAI: Climate in Eastern Mediterranean Basin - Aerosol Impacts - presentation of the project
Marie Monier*[1], François Dulac[3], Marc Mallet[2], Karine Sellegri[1], Jean Sciare[5], Guillaume Penide[7], Fabien Solmon[6], Karine Desboeufs[4]
[1]LaMP, CNRS/UBP, France, [2]LA, CNRS, France, [3]LSCE, CNRS/CEA, France, [4]LISA, CNRS/UPD, France, [5]Cyprus Institute, Cyprus, [6]ICTP, Italy, [7]LOA, CNRS/Lille3, France

P12.14 SCAVENGING OF AEROSOL PARTICLES BY RAIN IN LEON (SPAIN)
Carlos Blanco-Alegre[1], Amaya Castro[1], Ana I Calvo[1], Elisabeth Alonso-Blanco[2], Delia Fernandez-Gonzalez[3,4], Rosa M Valencia-Barrera[3], Ana M Vega-Maray[3], Santiago de Castro-Alfageme[3], Roberto Fraile*[1]
[1]University of León. Department of Physics, IMARENAB, Spain, [2]Centre for Energy, Environment and Technology Research (CIEMAT), Spain, [3]University of León. Biodiversity and Environmental Management, Spain, [4]Institute of Atmospheric Sciences and Climate, Italian National Research Country, Italy

P12.15 The Cloud System Evolution in the Trades (CSET) Study-A Showcase for Aerosol-Cloud-Precipitation Interactions
Bruce Albrecht[1], Paquita Zuidema[1], Chris Bretherton[2], Robert Wood*[2], Virendra Ghate[3]
[1]University of Miami, USA, [2]University of Washington, USA, [3]Argonne National Lab, USA

P12.16 Impacts of aerosol particle episodes on cloud physical properties and precipitation
Christina Kagkara*[1,3], Nikolaos Hatzianastassiou[3], Andrea I. Flossmann[1,2]
[1]LaMP/UBP, France, [2]INSU/CNRS, France, [3]Laboratory of Meteorology/University of Ioannina, Greece

P12.17 Analysis of Remote and Combustion Aerosol over the South East Pacific and its Links to Stratocumulus Cloud Droplet Size Distribution
Steffen Freitag*[1], Antony D Clarke[1], Steven G Howell[1], Jefferson R Snider[2], Cameron S McNaughton[1], Lindsey M Shank[1], Vladimir N Kapustin[1], Vera L Brekhovskikh[1], Jean-Louis Brenguier[1]
[1]University of Hawaii at Manoa, USA, [2]University of Wyoming, USA

Return to Main Menu

P13 Clouds and climate (including radiative properties of clouds)

2.00 – 3.00pm: Poster Session 2, Tuesday July 26th , *Renold C floor foyer*

P13.1 THE UPDATED EFFECTIVE RADIATIVE FORCING OF MAJOR ANTHROPOGENIC AEROSOLS AND THEIR EFFECTS ON GLOBAL CLIMATE AT PRESENT AND IN THE FUTURE
Hua Zhang*[1], Shuyun Zhao[1], Zhili Wang[2]
[1]National Climate Center, China, [2]Chinese Academy of Meteorological Sciences, China

P13.2 Sensitivity of Cloud Feedbacks to Turbulence Closure, Microphysics Scheme, and Grid Size in Cloud-Resolving RCE Simulations
Andrew Lesage[1], Steven Krueger*[1], Marat Khairoutdinov[2]
[1]University of Utah, USA, [2]Stony Brook University, USA

P13.3 Validation of MODIS liquid water path for oceanic non-raining warm clouds and its implication on the vertical profile of cloud water content
Qi Liu*, Lingli Zhou, Dongyang Liu, Lei Xie, Lin Qi
University of Science and Technology of China, China

P13.4 Implementing a two-moment bulk cloud microphysics scheme into TaiESM
Chein-Jung Shiu*[1], I-Chun Tsai[1], Wei-Ting Chen[2], Jen-Ping Chen[2], Huang-Hsiung Hsu[1]
[1]Academia Sinica, Taiwan, [2]National Taiwan University, Taiwan

P13.5 Radiative impacts of cloud processed bimodal CCN spectra
Stephen R. Noble*, James G. Hudson
Desert Research Institute, USA

P13.6 Seasonal trends in cloud vertical properties in the SE Asia region from IAGOS in situ observations
Karl Beswick[2], Gary Lloyd[1,2], Tom Choularton[1], Petzold Andreas[3], Matt Freer[4], Darrel Baumgardner[4], Martin Gallagher*[1,2], James Dorsey[2]
[1]National Centre for Atmospheric Science, Manchester, UK, [2]University of Manchester, Centre for Atmospheric Science, UK, [3]Forschungszentrum Jülich GmbH, Institut für Energie- und Klimaforschung, Jülich, Germany, [4]Droplet Measurement Technology, USA

P13.7 Climatic impact of marine organic aerosols as ice nuclei in the Arctic
Wan Ting Katty Huang*, Ulrike Lohmann, Luisa Ickes
Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland

P13.8 Precipitation Differences in Boreal Summer Measured by DPR Ka- and Ku-Band
Yunfei Fu*, Aoqi Zhang, Yilun Chen, Lu Yu
University of Science and Technology of China, China

P13.9 Radiative effects of inter-annually varying versus inter-annually invariant aerosol emissions from fires
Benjamin Grandey[1], Hsiang-He Lee*[1], Chien Wang[2,1]
[1]Singapore-MIT Alliance for Research and Technology, Singapore, [2]Massachusetts Institute of Technology, USA

P13.10 Observed relationship between cloud macrophysical properties and precipitation intensity
Yaniv Tubul*, Reuven H Heiblum, Ilan Koren, Orit Altaratz
Department of Earth and Planetary Sciences, Weizmann Institute of Science, Israel

P13.11 Vertical Distributions and Seasonal Fluctuations from CALIOP: A Regional Aerosol-Cloud Interaction Analysis
Ashley Heikkila*, Jennifer Griswold
University of Hawaii at Manoa, USA

P13.12 Large size and low number concentration cloud in mid and high latitudes
Suginori Iwasaki*[1], Takashi Shibata[2], Hisayuki Kubota[3], Hajime Okamoto[4]
[1]National Defense Academy, Japan, [2]Nagoya University, Japan, [3]Japan Agency for Marine-Earth Science and Technology, Japan, [4]Kyushu University, Japan

P13.13 Evaluation and Development of Cloud Microphysical Conversion Processes in the MIROC-SPRINTARS with A-Train Observations
Takuro Michibata*[1,2], Toshihiko Takemura[1]
[1]Research Institute for Applied Mechanics, Kyushu University, Japan, [2]Department of Earth System Science and Technology, Kyushu University, Japan

P13.14 Uncertainty in the long-wave effective radiative forcing by aerosol-cloud interactions
Johannes Quaas*, Irene Heyn, Karoline Block, Edward Gryspeerdt, Philipp Kühne, Johannes Mülmenstädt, Marc Salzmann
University of Leipzig, Germany

P13.15 On the relationships among cloud cover, mixed-phase partitioning, cloud feedback, and planetary albedo in GCMs
Daniel McCoy*[1,4], Ivy Tan[2], Dennis Hartmann[1], Mark Zelinka[3], Trude Storelvmo[2]
[1]University of Washington, USA, [2]Yale University, USA, [3]Lawrence Livermore Laboratory, USA, [4]University of Leeds, UK

P13.16 Interannual variations of cloud fraction and cloud types in the Atlantic Arctic from the end of the 19th century

Alexander Chernokulsky*[1], Igor Esau[2,3], Olga Bulygina[4], Igor Mokhov[1,5], Vladimir Semenov[1,6]
[1]Obukhov Institute of Atmospheric Physics RAS, Russia, [2]Nansen Environmental and Remote Sensing Center, Norway, [3]Centre for Climate Dynamics at the Bjerknes Centre, Norway, [4]All-Russia Research Institute of Hydrometeorological Information, Russia, [5]Lomonosov Moscow State University, Russia, [6]Institute of Geography RAS, Russia

P13.17 Evaluations of microphysics in a global cloud system model using TRMM/AMSR-E and a satellite simulator.
Woosub Roh*[1], Masaki Satoh[1,2]
[1]AORI, the university of Tokyo, Japan, [2]JAMSTEC, Japan

P13.18 The longwave, shortwave and UV fluxes in the cloudy atmosphere: measurements and simulations using the onboard actinometrical complex of the aircraft-laboratory YAK-42D "ROSHYDROMET"
Grigory Kolokutin, Victor Petrov*, Boris Fomin
Central Aerological Observatory, Russia

P13.19 Impact of lidar data processing on the estimation of cloud radiative forcing
Fabio Madonna*[1], Simone Lolli[2], Marco Rosoldi[1], Gelsomina Pappalardo[1], E. Judd Welton[2]
[1]Istituto di Metodologie per l'Analisi Ambientale Consiglio Nazionale delle Ricerche CNR-IMAA, Italy, [2]NASA-JCET, USA

P13.20 On the Potential Use of 3D Monte Carlo Radiative Transfer Models in Weather and Climate Models
Howard Barker*[1], Jason Cole[1], Jiangnan Li[2]
[1]Environment and Climate Change Canada, Canada, [2]Environment and Climate Change Canada, Canada

P13.21 Revised Cloud-Radiation Coupling for the COSMO-Model
Ulrich Blahak*[1], Pavel Khain[2], Harel Muskatel[2], Quiang Fu[3]
[1]German Meteorological Service (DWD), Germany, [2]Israel Meteorological Service, Israel, [3]University of Washington, USA

P13.22 Radiative-Convective Equilibrium to Evaluate AGCM Convective Parameterizations
Kevin Reed*[1], Brian Medeiros[2], Adam Herrington[0]
[1]Stony Brook University, USA, [2]National Center for Atmospheric Research, USA

P13.23 GCM cloud parameterization development from evaluation of large-eddy and SCM simulations using in situ observations and satellite retrievals of warm, boundary-layer clouds
Andrew Ackerman*[1], Ann Fridlind[1], George Tselioudis[1], Jasmine Remillard[1,2], Maxwell Kelley[1]
[1]NASA Goddard Institute for Space Studies, USA, [2]Stony Brook University, USA

Return to Main Menu

P14 Ice nuclei and cloud condensation nuclei

2.00 – 3.00pm: Poster Session 2, Tuesday July 26th , *Marquee*

P14.1 A laboratory investigation of the ice nucleation efficiency of several types of mineral and soil dust
Mikhail Paramonov*, Zamin A. Kanji, Ulrike Lohmann
ETH Zürich, Switzerland

P14.2 Parameterising Cloud Condensation Nuclei concentrations during HOPE
Luke Hande*[1], Christa Engler[2], Corinna Hoose[1], Ina Tegen[2]
[1]Karlsruhe Institute of Technology, Germany, [2]Leibniz Institute for Tropospheric Research, Germany

P14.3 Free tropospheric INP concentrations at the High Altitude Research Station Jungfraujoch
Larissa Lacher*, Ulrike Lohmann, Zamin Kanji
ETH, Switzerland

P14.4 CCN measurements at the Princess Elisabeth Antarctica Research Station
Paul Paul[1], Heike Wex*[1], Alexander Mangold[2], Frank Stratmann[1]
[1]Leibniz Institute of Tropospheric Research, Germany, [2]Royal Meteorological Institute, Belgium

P14.5 What influences CCN properties in central Europe?
Silvia Henning*, Wolfram Birmili, Alexander Beyer, Laurent Poulain, Achim Grüner, Alfred Wiedensohler, Hartmut Herrmann, Frank Stratmann
Leibniz Institute for Tropospheric Research, Germany

P14.6 Particle Hygroscopicity of Organics in the Supercooled Temperature Range Down to Minus 10°C
Silvia Henning*, Alexander Beyer, Jens Voigtländer, Frank Stratmann
Leibniz Institute for Tropospheric Research, Germany

P14.7 An approximation for freezing temperature of water droplets: homogeneous nucleation and immersion mode heterogeneous ice nucelation
Kuan-Ting O*, Robert Wood
University of Washington, Department of Atmospheric Sciences, USA

P14.8 The influence of particle generation on the immersion freezing behavior of different kinds of combustion ashes
Sarah Grawe*[1], Stefanie Augustin-Bauditz[1], Susan Hartmann[1], Lisa Hellner[1], Jan B. C. Pettersson[2], Andrea Prager[3], Heike Wex[1], Frank Stratmann[1]
[1]Leibniz Institute for Tropospheric Research, Germany, [2]University of Gothenburg, Sweden, [3]Leibniz Institute of Surface Modification, Germany

P14.9 Ice Nuclei Measurements over Mountain and Coastal site along West Coast of India
Sandeep Wagh*, Pradeep Kumar Pallath
Department of Atmospheric and Space Sciences, Savitribai Phule Pune University, India

P14.10 Could prediction of atmospheric dust help better modelling of heterogeneous cloud glaciation?
Slobodan Nickovic[1,2]
[1]Republic Hydrometeorological Service of Serbia, Serbia, [2]Institute of Physics, Serbia, [3]L'Istituto di Metodologie per l'Analisi Ambientale, Italy

P14.11 Long-term Measurements of Ice Nuclei Concentration at Cape Verde
André Welti*, Paul Herenz, Élise Beaudin, Nadja Samtleben, Frank Stratmann
Leibniz Institute for Tropospheric Research, Germany

P14.12 A chamber study on the impact of organic components on warm and cold cloud formation
Wiebke Frey*, Paul Connolly, James Dorsey, Dawei Hu, Rami Alfarra, Gordon McFiggans
University of Manchester, Centre for Atmospheric Science, UK

P14.13 Deposition ice nucleation: Can the FHH adsorption nucleation theory shed light on the temperature dependence of critical supersaturations?
Ari Laaksonen*[1,2], Jussi Malila[2], Athanasios Nenes[3,4]
[1]Finnish Meteorological Institute, Finland, [2]University of Eastern Finland, Finland, [3]Georgia Institute of Technology, USA, [4]ICE-HT, Foundation for Research and Technology, Greece

P14.14 Evaluation of the immerison freezing behaviors of dust collected in northwest Greenland
Yutaka Tobo*[1,2], Naoko Nagatsuka[1], Jun Uetake[1]
[1]National Institute of Polar Research, Japan, [2]SOKENDAI (The Graduate University for Advanced Studies), Japan

P14.15 An introduction to the BACCHUS INP Database and a review of the geographical distribution of INP measurements
James Atkinson*, Zamin A. Kanji, Berko Sierau, Ulrike Lohmann
ETH Zürich, Switzerland

P14.16 Closure between CCN and Cloud Droplet Concentrations for Warm Clouds in Western Japan
Masataka Murakami*, Narihiro Orikasa, Atsushi Saito, Katsuya Yamashita
Meteorological Reseach Institute, Japan

P14.17 CCN activation characteristics in the presence of biomass burning plumes

Mercy Varghese*[1], P Murugavel[1], Sachin Patade[1], Duncan Axisa[2], Resmi E. A.[1], Thara Prabha[1]
[1]Indian Institute of Tropical Meteorology, India, [2]National Centre for Atmospheric Research, USA

P14.18 Seasonal variations of aerosol, CCN, IN concentrations from ground-based observations at Tsukuba, Japan
Narihiro Orikasa*[1], Atsushi Saito[1], Katsuya Yamashita[2], Takuya Tajiri[1], Yuji Zaizen[1], Masataka Murakami[1]
[1]Meteorological Research Institute, Japan, [2]Snow and Ice Research Center, National Research Institute for Earth Science and Disaster Prevention, Japan

P14.19 Comparative study of ice nucleating efficiency of K-feldspar in immersion, deposition and contact freezing modes
Thibault Hiron*[1,2], Andreas Peckhaus[1], Nadine Hoffmann[1], Kiselev Alexei[1], Thomas Leisner[1]
[1]Karlsruhe Institute of Technology, Germany, [2]Université Blaise Pascal, France

P14.20 Measurements of Aerosol hygroscopicity in a tropical site influenced by pristine and anthropogenic polluted air masses
Henrique Barbosa*[1], Mira Pohlker[2], Ryan Thalman[3,6], Jian Wang[3], Theotonio Pauliquevis[4], Joel Brito[1], Ulrich Pöschl[2], Meinrat Andreae[2], Scot Martin[5], Paulo Artaxo[1], Alex Araujo[1]
[1]Universidade de São Paulo, Brazil, [2]Max Planck Institute for Chemistry, Germany, [3]Brookhaven National Laboratory, USA, [4]Universidade Federal de São Paulo, Brazil, [5]Harvard University, USA, [6]Snow College, USA

P14.21 Understanding ice nucleation by desert dust: Feldspar composition is important
Alex Harrison*[1], Thomas Whale[1], Benjamin Murray[1], John Morris[2]
[1]School of Earth and Environment, University of Leeds, UK, [2]Asymptote Ltd., UK

P14.22 Immersion freezing ice nucleation ability of atmospheric aerosol particles: an experimental study on asian dust and local dust
Takuya TAJIRI*, Yuji ZAIZEN, Masataka MURAKAMI
Meteorological Research Institute, Japan

P14.23 Density Functional Calculations of Thermodynamic Characteristics of Droplets on Small Solid Charged and Uncharged Nuclei
Alexander Shchekin*, Tatiana Lebedeva, Dmitry Tatyanenko
St Petersburg State University, Russia

P14.24 Activity of different proteinaceous ice nucleating particles
Susan Hartmann*[1], Meilee Ling[2], Sarah Grawe[1], Lisa Hellner[1], Tina Šantl-Temkiv[2], Thomas Boesen[2], Heike Wex[1], Kai Finster[2], Jonas Jakobsson[3], Jakob Löndahl[3], Frank Stratmann[1]
[1]Leibniz Institute for Tropospheric Research, Germany, [2]Aarhus University, Denmark, [3]Lund University, Sweden

P14.25 The new INKA instruments for laboratory and field measurements of ice nucleating particles
Kristina Höhler*[1], Thea Schiebel[1], Jens Nadolny[1], Ezra J. T. Levin[2], Kaitlyn Suski[2], Paul J. DeMott[2], Ottmar Möhler[1]
[1]Karlsruhe Institute of Technology, Germany, [2]Colorado State University, USA

P14.26 Results from the FIN-2 formal intercomparison of ice nucleation measurement methods
Paul Connolly[1], Corinna Hoose*[2], Xiaohong Liu[3], Dan Cziczo[4], Ottmar Möhler[2], Paul DeMott[5], Naruki Hiranuma[2], Markus Petters[6]
[1]The University of Manchester, UK, [2]Karlsruhe Institute of Technology, Germany, [3]University of Wyoming, USA, [4]Massachusetts Institute of Technology, USA, [5]Colorado State University, USA, [6]North Carolina State University, USA

Return to Main Menu

P15 Cloud and precipitation chemistry

2.00 – 3.00pm: Poster Session 2, Tuesday July 26th , *Marquee*

P15.1 Modeling of the volcanic convection and acid precipitation of the Piton de La Fournaise during the April 2007 eruption
Tulet Pierre*[1], Durand Jonathan[1], Filippi Jean-Batiste[2], Leriche Maud[3], Bielli Soline[1]
[1]LACy (CNRS, Réunion University, Météo-France), Reunion, [2]SPE (CNRS, Corte University), France, [3]LA (CNRS, Toulouse III university), France

P15.2 Chemical Composition of Fog Water in the Winter Season in Nanjing: Observational Study
Shuxian Fan
Nanjing University of Information Science and Technology, China

P15.3 Numerical simulation of cloud chemistry using bin microphysical scheme
Gabriella Schmeller*, István Geresdi
University of Pécs, Hungary

P15.4 Characterizing the Chemical Properties of Individual Metal-containing Particles in the Atmosphere of Nanjing by Single Particle Mass Spectrometry (SPAMS)
Kui Chen*[1,2], Yan Yin[1,2], Shaofei Kong[1,2], Hui Rui[1], Honglei Wang[1,2]
[1]Key Laboratory for Aerosol-Cloud-Precipitation of China Meteorological Administration, China, [2]Collaborative Innovation Center on Forecast and Evaluation of Meteorological Disasters, China

P15.5 SPACCIM modelling of the non-radical aqueous-phase chemistry of organic compounds in clouds and deliquesced aerosols
Andreas Tilgner*, Erik Hans Hoffmann, Luisa Schöne, Ralf Wolke, Hartmut Herrmann
Leibniz Institute for Tropospheric Research (TROPOS), Germany

P15.6 WRF Modelling of ozone transport over the West Pacific Warm Pool
Richard Newton*[1], Geraint Vaughan[1], Charles Chemel[2]
[1]University of Manchester, UK, [2]University of Hertfordshire, UK

P15.7 Hygroscopic parameterization of multi - scale aerosol during summer in the Mount Huang,China
Yang Suying, Wang qihua*, Li yanwei, Yin Yan, Zhang Zefeng, Chen Hui
Nangjing university of information science and technology, China

P15.8 Cloud condensation nuclei (CCN)-activation behaviour of atmospheric black carbon particles and acquisition of coating in fog
Ghislain Motos*, Julia Schmale, Joel Corbin, Marco Zanatta, Urs Baltensperger, Martin Gysel
Paul Scherrer Institute, Switzerland

P15.9 15 years of in-situ measurements of upper tropospheric humidity and ice-supersaturated regions by the MOZAIC programme
Patrick Neis[1], Herman G.J. Smit[1], Susanne Rohs[1], Florian Berkes[1], Philippe Nedelec[2], Damien Boulanger[2], Peter Spichtinger[3], Andreas Petzold*[1]
[1]Forschungszentrum Jülich GmbH, Institut für Energie- und Klimaforschung 8: Toposphäre, Germany, [2]Laboratoire d'aérologie, CNRS UMR-5560 et Observatoire Midi-Pyrénées, Université Paul-Sabatier, France, [3]Institut für Physik der Atmosphäre, Johannes Gutenberg Universität, Germany

P15.10 Role of bacteria in atmospheric chemistry: Biodegradation rates determination in cloud water, from experimentation to modelisation.
Nolwenn Wirgot*[1], Hélène Perroux[2,3], Muriel Joly[1,2], Laurent Deguillaume[2,3], Virginie Vinatier[1], Anne-Marie Delort[1,4]
[1]Blaise Pascal University, Institute of chemistry of Clermont-Ferrand, France, [2]Blaise Pascal University, OPGC,LaMP, France, [3]CNRS, UMR 6016, LaMP/OPGC, BP 80026, F-63171, France, [4]CNRS, UMR 6296, ICCF, France

P15.11 Rainwater chemistry in Central Amazonia during GoAmazon2014/5
Theotonio Pauliquevis*[1], Henrique Barbosa[2], Ricardo Godoi[3], Rodrigo Souza[4], Bruno Portela[5], Glauber Cirino[5], Cybelli Barbosa[3], Priscila Kurzlop[3], Carlos Yamamoto[3], Paulo Artaxo[2]
[1]Federal University of Sao Paulo, Brazil, [2]University of Sao Paulo, Brazil, [3]Federal University of Parana, Brazil, [4]University of the State of Sao Paulo, Brazil, [5]National Institute for Research in Amazonia, Brazil

P15.12 Antarctic Observations of Bio-Fluorescent Aerosol
Ian Crawford[1], David Topping[2], Simon Ruske[1], Michael Flynn[1], Keith Bower[1], Neil Brough[5], Virginia Foot[4], Paul Kaye[3], Martin Gallagher*[1,2]
[1]University of Manchester, School of Earth, Atmospheric and Environmental Science, UK, [2]National Centre for Atmospheric Science, UK, [3]University of Hertfordshire, Science and Technology Research Institute, UK, [4]Defence Science and Technology Laboratory, Porton Down,, UK, [5]British Antarctic Survey, NERC, UK

P15.13 Wet removal of black carbon aerosols controlled by their cloud condensation nuclei activity
Sho Ohata*[1], Tatsuhiro Mori[1], Nobuhiro Moteki[1], Makoto Koike[1], Yutaka Kondo[2]
[1]The University of Tokyo, Japan, [2]National Institute of Polar Research, Japan

P15.14 Observational study of the cloud condensation nuclei (CCN) activity in the Norh China Plain
Chunsheng Zhao
Peking Univ., China

P15.15 Multiphase chemistry modelling using the regional model COSMO-MUSCAT: Results for the field campaign HCCT-2010.
Ralf Wolke*[1], Roland Schrödner[2], Andreas Tilgner[1], Dominik van Pinxteren[1], Hartmut Herrmann[1]
[1]Leibniz-Institute for Tropospheric Research, Germany, [2]Lund University, Centre for Environental and Climate Research, Sweden

Return to Main Menu

P16 Measurement techniques (of cloud & precipitation properties) & uncertainties

1.30 – 3.00pm: Poster Session 1, Monday July 25th *Marquee*

P16.1 Improving the retrieval of particle size spectra and liquid water content from optical spectrometer measurements using a Monte Carlo inversion method
Guy Febvre, Delphine Leroy*, Valery Shcherbakov, Alfons Schwarzenboeck
LaMP -CNRS/UBP-, France

P16.2 Mass retrieval for ice crystals from particle images and ice water content measurements: a numerical optimization approach
Pierre Coutris*[1], Delphine Leroy[1], Emmanuel Fontaine[1], Alfons Schwarzenboeck[1], J. Walter Strapp[2]
[1]Laboratoire de Météorologie Physique (LaMP), CNRS/Université Blaise Pascal, France, [2]Met Analytics, Inc., Canada

P16.3 Characterization of response time behavior on the Fast-2D optical array probe detector board
Matthew Hayman*, Katie McMenamin, Jorgen Jensen
NCAR, USA

P16.4 Study of droplet activation in thin liquid clouds using ground-based Raman lidar and ancillary remote sensors
Marco Rosoldi*, Fabio Madonna, Gelsomina Pappalardo
Consiglio Nazionale delle Ricerche Istituto di Metodologie per l'Analisi Ambientale, Italy

P16.5 Cloud cover estimation based on ceilometer measurements: a comparison with visual observations
Montse Costa-Surós*[2], Josep Calbó[1], Josep-Abel González[1], Arturo Sanchez-Lorenzo[3]
[1]Universitat de Girona, Spain, [2]University of Warsaw, Poland, [3]Instituto Pirenaico de Ecología, Consejo Superior de Investigaciones Científicas, Spain

P16.6 Finnish Meteorological Institute - Aerosol Cloud Interaction Tube (FMI - ACIT), parameters for proper operation and first results.
Konstantinos Doulgeris*, David Brus
Finnish Meteorological Institute, Finland

P16.7 Calculation of polarimetric radar fields using the output of a bin microphysics scheme
Noémi Sarkadi*[1], István Geresdi[1], Miklós Szakáll[2]
[1]University of Pécs, Hungary, [2]Johannes Gutenberg University of Mainz, Germany

P16.8 A droplet generator system for calibrating and evaluating the performance of airborne cloud particle probes.
Robert Jackson*, Spencer Faber, William Kuestner, Jeffrey French
University of Wyoming, USA

P16.9 Interpretation of airborne CASPOL measurements using methods developed in the CLOUD chamber
Leonid Nichman*[1], Emma Järvinen[2], James Dorsey[1,3], Sebastian O'Shea[1], Paul Connolly[1], Jonathan Crosier[1,3], Martin Gallagher[1]
[1]University of Manchester, UK, [2]Karlsruhe Institute of Technology, Germany, [3]National Centre for Atmospheric Science, UK

P16.10 The complexity of variational retrieval of liquid cloud properties
Kerstin Ebell*, Ulrich Loehnert, Emiliano Orlandi, Susanne Crewell
University of Cologne, Institute for Geophysics and Meteorology, Germany

P16.11 Investigating a New Disdrometer Sampling Method to Reduce Measurement Variability
Katelyn O'Dell*, Michael Larsen
College of Charleston, USA

P16.12 An observation system for detection of local severe snowstorm causing snow-related disaster
Katsuya Yamashita*, Sento Nakai, Hiroki Motoyoshi
National Research Institute for Earth Science and Disaster Prevention, Japan

P16.13 Quantitative Estimation of Contribution of Raindrop flux to total precipitation intensity in Mixed Phase Precipitation from Optical Disdrometer Data
Hiroki Motoyoshi*[1], Ryohei Misumi[2], Masaaki Ishizaka[1], Sento Nakai[1], Katsuya Yamashita[1]
[1]Snow and Ice Research Center, National Research Institute for Earth Science and Disaster Prevention, Japan, [2]Storm, Flood and Landslide Research Unit, National Research Institute for Earth Science and Disaster Prevension, Japan

P16.14 Fast open path IR hygrometer for airborne application – feasibility study
Jakub Nowak*[1], Paweł Magryta[2], Michał Kustosz[2], Tadeusz Stacewicz[2], Wojciech Kumala[1], Szymon Malinowski[1]
[1]University of Warsaw, Faculty of Physics, Institute of Geophysics, Poland, [2]University of Warsaw, Faculty of Physics, Institute of Experimental Physics, Poland

P16.15 Rainfall characteristics in central London: a cross sensor, high temporal resolution analysis
Andrew Gabey*, Sue Grimmond, Simone Kotthaus, William Morrison
University of Reading, UK

P16.16 Compararison Study between Ultrasonic and Laser Snow Depth Meter over Daegwallyeong Site during 2011-

2014
JiWon Choi*, Ki-Ho Chang, Ha-Young Yang, Jin-Yim Jeong, Dong-Oh Park, Baek-Jo Kim
National Institute of Meteorological Sciences, Republic of Korea

P16.17 Documenting variability of ice mass-dimensional properties during winter storms in Finland
Annakaisa von Lerber*[1,2], Dmitri Moisseev[3,1], Walter Petersen[4], Ari-Matti Harri[1]
[1]Finnish Meteorological Institute, Finland, [2]Aalto University, Finland, [3]University of Helsinki, Finland, [4]NASA Marshall Space Flight Center, USA

P16.18 Discriminating between liquid and ice particles measured in mixed phase cloud during the INUPIAQ campaign
Robert Farrington*[1], Paul Connolly[1], Thomas Choularton[1], Keith Bower[1], Gary Lloyd[1], Michael Flynn[1], Christopher Hoyle[2], Paul Field[3,4], Erik Herrmann[2]
[1]University of Manchester, UK, [2]Paul Scherrer Institute, Switzerland, [3]University of Leeds, UK, [4]Met Office, UK

P16.19 Providing the better methods to estimate snowfall rate by using laser disdrometers
Hiroyuki Konishi*[1], Naohiko Hirasawa[2]
[1]Osaka Kyoiku Univ., Japan, [2]National Institute of Polar Research, Japan

P16.20 Variability of Local Droplet Size Distributions in Marine and Arctic Stratocumulus Clouds Observed with Airborne Digital Holography
S. Glienke*[1,2], O. Schlenczek[1,3], J. Fugal[1,3], R. Shaw[2], S. Borrmann[1,3]
[1]Johannes Gutenberg University Mainz, Germany, [2]Michigan Technological University, USA, [3]Max Planck Institute for Chemistry, Germany

P16.21 Improvements in Optical Array Probe Characterization: Laboratory and Simulation Results
Colin Gurganus*, Paul Lawson
SPEC, USA

P16.22 Uncertainties in historical precipitation and wind time series over Russia and their influence on reanalysis data
Pavel Shabanov
P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences (IO RAS), Russia

P16.23 Improved Algorithms for Radar Remote Sensing of Snowfall Rate Using Dual Polarization C Band Radar
Faisal Boudala*[1], David Hudak[1], Sudesh Boodoo[1], Norman Donaldson[1], Rodica Nitu[2], Kai Wong[2]
[1]Cloud Physics and Severe Weather Research Section, Environment and Climate Change Canada, Canada, [2]2Meteorological Service of Canada, Environment Canada, Environment and Climate Change Canada, Canada

P16.24 ADVANCED OPTICAL PACKAGE FOR ESTIMATING OF CLOUD COVER AND STRUCTURE
Mikhail Krinitskiy
P.P.Shirshov Institute of Oceanology of the Russian Academy of Sciences, Russia

P16.25 Vertical profile of fog microphysics measurements : a case study.
Frédéric BURNET*, Pierre-Etienne BRILOUET, Marie MAZOYER, Thierry BOURRIANNE, Jean-Michel ETCHEBERRY, Dominique LEGAIN
Meteo-France/CNRS, CNRM/GAME, France

P16.26 Comparative analysis of lab-grown ice crystals by Cryo-Scanning Electron Microscopy
Lucas Bancroft*, Katie Boaggio, Kevin Hurler, Manisha Bandamede, Nathan Magee
The College of New Jersey, USA

P16.27 Potential of Higher Moments of the Radar Doppler Spectrum for Studying Ice Clouds
Maximilian Maahn*[1], Ulrich Löhnert[2]
[1]University of Colorado, USA, [2]University of Cologne, Germany

P16.28 Quantifying uncertainty in forward scattering probes due to non-sphericity of atmospheric ice crystals
Junshik Um*, Greg M McFarquhar
University of Illinois at Urbana-Champaign, USA

P16.29 Recalibration of CAS probe during time periods with large droplet concentrations: Results from RACORO
Siddhant Gupta*[1], Greg M McFarquhar[1], Haf Jonsson[2]
[1]University of Illinois at Urbana-Champaign, USA, [2]Center for Interdisciplinary Remotely Piloted Aircraft Studies, Canada

Return to Main Menu

P17 Applications of cloud & precipitation physics

1.30 – 3.00pm: Poster Session 1, Monday July 25th *Marquee*

P17.1 Effect Verification and Analysis for Artificial Precipitation Enhancement of Stratiform Cloud by Rocket in Dalian
Hongbin Li*[1], Yu Fu[1], Xiuping Wang[2], Deping Zhou[3], Wenyao Pu[1], Fansheng Zhao[1], Yang He[1]
[1]Dalian Weather Modification Office, China, [2]Dalian Meteorological Observatory, China, [3]Shenyang Institute of Atmospheric Environment, China Meteorologial Administration, China

P17.2 Research on the use of radar products in artificial precipitation effect assessment
Jun Cai*, Liren Xu, Haiyang Sun
Institute of Atmospheric Physics,Chinese Academy of Sciences, China

P17.3 Cloud Seedability Study Using WRF Model Outputs to Drive a One-Dimensional Cloud Model
Zhaoxia Hu*, Ling Jin, Hengchi Lei
Institute of Atmospheric Physics, Chinese Academy of Sciences, China

P17.4 Second-order potential vorticity in moist atmosphere and its application in the diagnosis of heavy precipitation
Na Li*, Shouting Gao, Lingkun Ran
Institute of Atmospheric Physics, China

P17.5 Using geochemical analysis of rain samples and satellite images in order to investigate cloud seeding efficiency
Assaf Zipori*, Daniel Rosenfeld, Yigal Erel
The Institute of Earth Sciences, Israel

P17.6 Cloud Response after Precipitation Enhancement Operation
Yilin Wang*[1], Zhanyu Yao[2]
[1]Shandong Institute of Meteorology, China, [2]Chinese Academy of Meteorological Sciences, China

P17.7 Analysis On Characteristics of Radar Echoes and Conditions for Precipitation Enhancement in Gutian of Fujian
Lin Changcheng*[1], Yao Zhanyu[2], Lin Wen[1], Chen Binbin[1], Jiang shangci[3], Li Dan[1]
[1]Fujian Institute of Meteorological Science, China, [2]Chinese Academy of Meteorological Sciences, China, [3]Gutian Observatory of Ningde Meteorological Bureau, China

P17.8 Simulation of an orographic cloud airborne seeding case using a bin microphysics scheme
Lulin Xue*[1], István Geresdi[2], Roy Rasmussen[1], Sarah Tessendorf[1], Courtney Weeks[1], Jeffrey French[3], Bart Geerts[3], Pat Holbrook[4], Derek Blestrud[4], Mel Kunkel[4], Shaun Parkinson[4]
[1]National Center for Atmospheric Research, USA, [2]University of Pécs, Hungary, [3]University of Wyoming, USA, [4]Idaho Power Company, USA

P17.9 Observation and study of macro and micro physical responses in cold cloud catalytic
Yuwen SUN[1,2], Xiangfeng HU[1,2], Baodong LI*[1,2], Zhihui WU[1,2], Xiaobo DONG[1,2]
[1]Hebei weather modification office, China, [2]Hebei Key Laboratory of Meteorology and Ecology Environment, China

P17.10 Examination of Potential Changes in Orographic Precipitation and Snowpack over the Western United States in a Future Climate from a High Resolution 10 year CONUS Simulation using WRF
Roy Rasmussen*[1], Kyoko Ikeda[1], Changhai Liu[1], Aiguo Dai[2]
[1]NCAR, USA, [2]State University of New York, USA

P17.11 The modern climatology of Northern Eurasia tornadoes
Alexander Chernokulsky*[1], Michael Kurgansky[1,2], Igor Mokhov[1,2], Evgeniya Selezneva[3], Andrei Shikhov[4], Denis Zakharchenko[2], Bogdan Antonescu[5]
[1]Obukhov Institute of Atmospheric Physics RAS, Russia, [2]Lomonosov Moscow State University, Russia, [3]Institute of Mathematical Problems of Biology RAS, Russia, [4]Perm State University, Russia, [5]Centre for Atmospheric Science School of Earth, Atmospheric and Environmental Sciences, The University of Manchester, UK

P17.12 Cloud physical response of cloud seeding based on radar observation
Zhanyu YAO
Chinese Academy of Meteorological Sciences, China

P17.13 An analysis of the impact of ground-based glaciogenic seeding on winter orographic clouds at Daegwallyeong during 2013-2015
Ha-Young Yang*, Sanghee Chae, Seong-Kyu Seo, Jin-Yim Jeong, Ki-Ho Chang, Young-San Park, Jiwon Choi, Baek-Jo Kim
National Institute of Meteorological Sciences, Republic of Korea

P17.14 Probabilistic Quantitative Precipitation Forecast of Different Type Typhoons in Taiwan
Hsu-Feng Teng
Department of Atmospheric Sciences, National Taiwan University, Taiwan

P17.15 Silver Iodide Ice Nucleus Observations On and Over the Medicine Bow Range, Wyoming

Bruce Boe
Weather Modification, Inc., USA

Return to Main Menu