



IRS2016

International Radiation Symposium
16-22 April | Auckland, New Zealand



Saturday April 16, 2016

3:00 PM - 6:00 PM	Registration Open (OGGB Level 0)
5:00 PM - 7:00 PM	Icebreaker Welcome Reception (OBBG Level 1)

Sunday, April 17, 2016

8:00 AM - 8:45 AM	Registration Open (OGGB Level 0)
8:45 AM - 9:00 AM	Opening and Welcome

9:00 AM - 10:00 AM	<p>Keynote Speaker: Richard McKenzie</p> <p>401 UV RADIATION IN THE MELANOMA CAPITAL OF THE WORLD: WHAT MAKES NEW ZEALAND SO DIFFERENT?</p> <p>Session Chair: Werner Schmutz Session Convenor: Werner Schmutz Room: Lecture Theatre 098</p>
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10:00 AM - 10:30 AM Morning Coffee Break

Concurrent Session 1		1A. General Remote Sensing Remote sensing of clouds	1B. Radiation Budget and Forcing GHG and Aerosol Radiative Forcing	1C. Radiative Transfer Theory and Modeling
10:30 AM - 12:30 PM		Session Chair: Allen Larar Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre OGGB 3	Session Chair: Martin Wild Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGGB 4	Session Chair: Bernhard Mayer Session Convenors: Bernhard Mayer, Alexander Marshak Room: Lecture Theatre OGGB 5
10:30-10:45	61	SPATIAL AND TEMPORAL DISTRIBUTION OF CLOUD PROPERTIES OBSERVED BY MODIS: LEVEL-3 RESULTS FROM COLLECTION 6 PROCESSING - Dr Michael King	220 CONTRASTS IN RADIATIVE FORCING BY GREENHOUSE GASES AND AEROSOLS, AND THE RESULTING IMPACTS ON HYDROLOGIC CYCLE AND PRECIPITATION - Prof. Venkatachalam Ramaswamy	362 A RADIATIVE-CONVECTIVE EQUILIBRIUM MODEL OF THE ESCAPE FROM SNOWBALL EARTH - Nick Edkins
10:45-11:00	374	HOW FAR CAN BE CHARACTERIZED THE VERTICAL STRUCTURE OF CLOUDY ATMOSPHERE WITH SATELLITE PASSIVE SENSORS? EXAMPLE WITH POLDER3/PARASOL MEASUREMENTS AND PERSPECTIVES - Dr Nicolas Ferlay	44 AN ASSESSMENT OF RADIATIVE FORCING AND RAPID ADJUSTMENT PROCESSES IN CMIP5 CLIMATE MODELS - Prof Brian Soden	9 ACTIVE AND PASSIVE MICROWAVE SOUNDING: MILLIMETER WAVE RADIATIVE TRANSFER IN NATURAL RAIN MEDIUM. - Assoc Prof Yaroslav Ilyushin
11:00-11:15	371	CLOUD AND AEROSOL PRODUCTS FROM EARTHCARE'S MULTISPECTRAL IMAGER (MSI) - Dr Stefan Horn	216 MAJOR UNCERTAINTIES IN SHORTWAVE SURFACE FORCING BY METHANE: SOURCES, IMPLICATIONS, AND PROSPECTS FOR RESOLUTION - Prof. William Collins	273 TWO-LAYER STRUCTURES OF ATMOSPHERIC AEROSOLS OVER NORTHERN SOUTH CHINA SEA: COMPONENTS AND THEIR RADIATIVE EFFECTS - Prof. Sheng-Hsiang Wang
11:15-11:30	130	VIEW ANGLE DEPENDENCE OF MODIS CLOUD PROPERTY RETRIEVALS IN MARINE LIQUID WATER CLOUDS - Dr Hartwig Deneke	129 THE SPECTROSCOPIC FOUNDATION OF CO2 CLIMATE FORCING - Dr. Martin Mlynzack	32 THEORY AND POSSIBLE APPLICATIONS OF THE SPECTRALLY-INVARIANT APPROXIMATION - Dr Alexander Marshak
11:30-11:45	272	ASSESSMENT OF THE SINGLE-LAYER APPROXIMATION IN A-TRAIN INTEGRATED CLOUD PRODUCTS THROUGH SEVERAL YEARS OF MULTI-LAYER RETRIEVALS - Dr Odran Sourdeval	46 LINE-BY-LINE FORCING DIAGNOSTICS OF CLIMATE MODEL AEROSOL AND GREENHOUSE GAS FORCING FROM THE RADIATIVE FORCING MODEL INTERCOMPARISON PROJECT - Dr Daniel Feldman	111 AN IMPROVED ATMOSPHERIC VECTOR RADIATIVE TRANSFER MODEL INCORPORATING ROUGH OCEAN BOUNDARIES - Dr Xuehua Fan
11:45-12:00	83	ANALYSIS OF THE VERTICAL DISTRIBUTION OF THE THERMODYNAMIC PHASE IN TROPICAL DEEP-CONVECTIVE CLOUDS - Prof Manfred Wendisch	43 AEROSOL RADIATIVE FORCING WITH THE MAC CLIMATOLOGY - Mr Stefan Kinne	18 TERRAIN REFLECTANCE RETRIEVAL IN THE PRESENCE OF OPTICALLY OPAQUE BROKEN CLOUDS - Dr Robert Sundberg
12:00-12:15	308	RETRIEVAL OF LIQUID CLOUD PROPERTIES FROM POLDER3/PARASOL INSTRUMENT: ADVANTAGES AND LIMITATIONS - Dr Laurent C.-Labonnote	50 TOWARDS A BETTER UNDERSTANDING OF UNCERTAINTY IN AEROSOL FORCING - Dr Stephanie Fiedler	
12:15-12:30	200	A DATA FUSION APPROACH TO IMPROVE THE RESOLUTION OF CLOUD ICE AND LIQUID WATER CONTENT FROM SATELLITE IMAGER DATA - Dr William Smith Jr	166 SHORTWAVE DIRECT RADIATIVE EFFECTS OF ABOVE CLOUD AEROSOLS OVER GLOBAL OCEANS DERIVED FROM EIGHT YEARS OF CALIOP AND MODIS OBSERVATIONS - Dr Zhibo Zhang	62 CIRRUS HETEROGENEITY EFFECTS ON CLOUD OPTICAL PROPERTIES RETRIEVED WITH AN OPTIMAL ESTIMATION METHOD FROM MODIS VIS TO TIR CHANNELS. - Dr Thomas Fauchez

12:30 PM - 2:00 PM Lunch Break

Concurrent Session 2		2A. General Remote Sensing Remote sensing of clouds (2:00-3:15) Atmospheric sounding and geophysical retrievals (3:15-3:45)	2B. Radiation Budget and Forcing GHG and Aerosol Radiative Forcing (2:00-2:45) Cloud radiative effect (2:45-3:45)	2C. Radiative Transfer Theory and Modeling
2:00 PM - 3:45 PM		Session Chair: Daren Lu	Session Chair: Stefan Kinne	Session Chair: Alexander Marshak

Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre OGGB 3		Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGGB 4		Session Convenors: Bernhard Mayer, Alexander Marshak Room: Lecture Theatre OGGB 5		
2:00-2:15	248	SPATIO-TEMPORAL VARIABILITY OF WARM CONVECTIVE CLOUDS OBSERVED BY METEOSAT SEVIRI AND ITS IMPLICATIONS FOR PASSIVE CLOUD RETRIEVALS - Dr Hartwig Deneke	183	SOUTHEAST ATLANTIC OCEAN AEROSOL DIRECT RADIATIVE EFFECTS OVER CLOUDS: COMPARISON OF OBSERVATIONS AND MODEL SIMULATIONS - Dr Martin de Graaf	144	RTTOV: A VERY FAST RTM FOR SATELLITE DATA ASSIMILATION AND MANY APPLICATIONS - Dr Jerome Vidot
2:15-2:30	340	THE EFFECT OF SURFACE ROUGHNESS AND FOOTPRINT SIZE ON SPECTRAL BIDIRECTIONAL REFLECTANCE-DISTRIBUTION FUNCTION (BRDF) - Dr. Charles Gatebe	285	MEASUREMENTS AND RADIATIVE TRANSFER MODEL SIMULATIONS OF SW AND LW IRRADIANCE AND BRIGHTNESS TEMPERATURE PROFILES ABOVE LAMPEDUSA SUPERSITE DURING THE CHARMEX/ADRIMED CAMPAIGN - Dr Daniela Meloni	393	RRTMGP: A FAST AND ACCURATE RADIATION CODE FOR THE NEXT DECADE - Dr. Eli Mlawer
2:30-2:45	170	BIAS IN MODIS CLOUD DROP EFFECTIVE RADIUS FOR OCEANIC WATER CLOUDS AS DEDUCED FROM MEASURED CLOUD OPTICAL THICKNESS VARIABILITY ACROSS SCATTERING ANGLES - Prof. Larry Di Girolamo	344	RADIATION CALCULATIONS ON THE BASE OF ATMOSPHERIC MODELS FROM LIDAR SOUNDING - Prof Irina Melnikova	191	RETRIEVAL OF VERTICAL PROFILES OF CLOUD DROPLET EFFECTIVE RADIUS USING SOLAR REFLECTANCE FROM CLOUD SIDES - Dr Florian Ewald
2:45-3:00	29	REMOTE SENSING OF LIQUID WATER CLOUDS USING THE RESEARCH SCANNING POLARIMETER - Dr Mikhail Alexandrov	382	RESPONDING TO CLIMATE CHANGE: IS MARINE CLOUD BRIGHTENING AN OPTION? - Prof. Thomas Ackerman	47	PROPER DETERMINATION OF DIRECT SOLAR RADIATION IN NWP AND CLIMATE MODELS - Dr. Zhian Sun
3:00-3:15	276	ESTIMATION OF MELTING LAYER MULTI-WAVELENGTH ATTENUATION BY DATA FUSION OF PASSIVE AND ACTIVE SENSORS - Dr Pablo Saavedra Garfias	26	INSIGHTS ON CLOUD RADIATIVE EFFECTS FROM DECOMPOSITION BY CLOUD REGIME - Dr Lazaros Oreopoulos	101	MARKOV CHAIN FORMALISM IN GENERALIZED RADIATIVE TRANSFER: FROM A TWO-STREAM DEMO TO A LINEARIZED VECTOR MULTI-STREAM CODE FOR MULTI-ANGLE/MULTI-SPECTRAL/MULTI-POLARIZATION (3M) REMOTE SENSING OF CLOUDS AND AEROSOLS - Dr Anthony Davis
3:15-3:30	215	VALIDATION OF ULTRASPECTRAL RADIANCES AND SOUNDING MEASUREMENTS DURING SNPP-1, SNPP-2, AND HS3 AIRBORNE FIELD CAMPAIGNS - Dr. William Smith Sr.	356	CLOUD EFFECTS ON ATMOSPHERIC SOLAR ABSORPTION IN LIGHT OF MOST RECENT SURFACE AND SATELLITE MEASUREMENTS - Dr Maria Hakuba	98	NEW VERSION OF THE SECOND SIMULATION OF THE SATELLITE SIGNAL IN THE SOLAR SPECTRUM, 6SV2 - Prof Eric Vermote
3:30-3:45	79	EXPLOITING ALL IASI CHANNELS FOR THE PHYSICAL RETRIEVAL OF TEMPERATURE, WATER VAPOUR, OZONE AND MINOR AND TRACE GASES: CO, CO2, CH4, N2O AND NH3 - Prof Carmine Serio	180	APPLICATION OF THE CERES FLUX-BY-CLOUD TYPE SIMULATOR TO GCM OUTPUT - Dr Zachary Eitzen		

3:45 PM - 4:15 PM **Afternoon Coffee Break**

Concurrent Session 3

4:15 PM - 6:00 PM	<p align="center">3B. Radiation Budget and Forcing</p> <p align="center">Cloud radiative effect</p> <p>Session Chair: Peter Pilewskie Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGGB 4</p>		<p align="center">3C. Ice Clouds: light scattering, radiometric and polarimetric remote sensing, and</p> <p>Session Chair: TBD Session Convenors: Ping Yang, Anthony Baran Room: Lecture Theatre OGGB 5</p>	
4:15-4:30	184	RELATIVE ROLES OF ATMOSPHERIC STATE AND BOUNDARY LAYER CLOUDS ON ARCTIC CLOUD RADIATIVE FORCING FORECASTS: THE ARISE 2014 CASE STUDY - Dr Michal Segal Rozenhaimer	214	ON THE CHARACTERIZATION OF ICE CLOUDS FROM HYPER-SPECTRAL INFRARED SATELLITE OBSERVATIONS - Dr Brian Kahn
4:30-4:45	236	CLOUD RADIATIVE EFFECT AND CLOUD PROPERTY ESTIMATES FROM AIRBORNE MEASUREMENTS OF TRANSMITTED LIGHT - Dr. Samuel LeBlanc	Invited Speaker	
4:45-5:00	311	DRIVERS OF VARIABILITY IN CLOUD RADIATIVE EFFECTS FROM SIMPLE TRANSFORMATION IMAGES OF COMPLEX SYSTEM OBSERVATIONS - Dr. Allison McComiskey	37	OPTICS OF ICE CRYSTALS: THE FRAUNHOFER DIFFRACTION, TUNNELING AND FRESNEL'S RAYS - Dr Lei Bi
5:00-5:15	165	ON THE SPATIAL AND TEMPORAL SCALES OF CLOUD-INDUCED VARIABILITY IN SOLAR IRRADIANCE AT THE SURFACE: IMPLICATIONS FOR CLOSURE STUDIES - Dr B L Madhavan	198	OPTICAL PROPERTIES OF ICE CRYSTALS: HOW CAN SURFACE ROUGHNESS EFFECTS BE DISTINGUISHED FROM BUBBLE INCLUSION EFFECTS? - Prof R. Lee Panetta
5:15-5:30	247	AEROSOL-INDUCED CHANGES IN CLOUD RADIATIVE FORCING: A KEY TO CLOSE THE GAP IN GLOBAL ESTIMATE OF AEROSOL INDIRECT RADIATIVE FORCING - Prof Zhanqing Li	28	LIGHT SCATTERING BY ATMOSPHERIC HEXAGONAL ICE CRYSTALS FOR DETERMINATION OF APPLICABILITY OF GEOMETRIC OPTICS AND FORMATION OF ATMOSPHERIC CIRCUMSCRIBED HALOS
5:30-5:45	282	ANALYSIS OF THE DIURNAL CYCLE OF CLOUD EFFECTS ON THE SURFACE RADIATION BUDGET OF THE CONTINENTAL USA SURFRAD NETWORK - Dr. Charles Long	35	ON THE AEROSOL AND CLOUD PHASE FUNCTION EXPANSION MOMENTS FOR RADIATIVE TRANSFER SIMULATIONS - Dr Jjiangnan Li
5:45-6:00	256	SURFACE BASED CLOUD RADIATIVE FORCING ASSESSMENT AT DOME-C ANTARCTIC STATION (75°S) USING BSRN DATA - Dr Christian Lanconelli		

Monday, April 18, 2016

9:00 AM - 10:00 AM	<p>Keynote Speaker: Martin Wild</p> <p>399 THE GLOBAL ENERGY BALANCE FROM A SURFACE PERSPECTIVE</p> <p>Session Chair: TBD Session Convenor: Werner Schmutz Room: 098</p>	
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10:00 AM - 10:30 AM **Morning Coffee Break**

Concurrent Session 4

10:30 AM - 12:30 PM	<p align="center">4A. General Remote Sensing</p> <p align="center">Atmospheric sounding and geophysical retrievals</p> <p>Session Chair: William Smith, Sr.</p>	<p align="center">4B. Radiation Budget and Forcing</p> <p align="center">Cloud radiative effect (10:30 - 11:00); Diagnosing and validating TOA and atmospheric radiative components (11:00-12:30)</p> <p>Session Chairs: Peter Pilewskie, Stefan Kinne</p>	<p align="center">4C. Surface Measurements and Field Experiments</p> <p>Session Chair: TBD</p>
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Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre 098		Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGGB 4		Session Convenors: Bruce Forgan, Hayasaka Tadahiro Room: 055 - Case Room 3		
10:30-10:45	185	A HYPERSPECTRAL RETRIEVAL ALGORITHM USING MULTIPLE SPECTRAL REGIONS - Dr. Xu Liu	307	10-YEAR OBSERVATIONS OF CLOUD AND SURFACE LONGWAVE RADIATION AT NY-ÅLESUND, SVALBARD - Prof Sang-Woo Kim	259	THE ROLE OF CLOUDS ON THE SURFACE ENERGY BUDGET OF GREENLAND: RESULTS FROM THE ICECAPS EXPERIMENT AT SUMMIT STATION - Professor Von P. Walden
10:45-11:00	372	DEVELOPMENT OF TANSO-FTS CO2 RETRIEVAL ALGORITHM USING TANSO-CAI AEROSOL INFORMATION OVER EAST ASIA - Mr Woogyung Kim	131	LINK BETWEEN CLOUD RADIATIVE EFFECT, CLOUD PROPERTIES AND ATMOSPHERIC COMPOSITION ANALYSED FOR DIFFERENT STATIONS IN SWITZERLAND - Ms Christine Aebi	Invited Speaker	
11:00-11:15	342	A RETRIEVAL ENVIRONMENT TO DEVELOP A CONSISTENT LONG-TERM DATASET FROM MICROWAVE SOUNDER INSTRUMENTS - Dr Mathias Schreier	297	THE INCOMING ENERGY – A TOTAL SOLAR IRRADIANCE UPDATE - Dr Greg Kopp	349	AEROSOL, CLOUD AND RADIATION OBSERVATIONS DURING HOPE - CONTRIBUTIONS FROM TROPUS - Prof Andreas Macke
11:15-11:30	290	AIRBORNE FIELD EXPERIMENTS AND SELECT RADIANCE ANALYSIS FOCUSED ON SNPP VALIDATION - Dr Allen Larar	343	THE PREMOS/PICARD TOTAL SOLAR IRRADIANCE MEASUREMENTS FROM 2010 TO 2014 AND ITS CONTRIBUTION TO THE TSI-COMPOSITE - Prof. Dr. Werner Schmutz	252	SEASONAL VARIATIONS OF SURFACE RADIATION AND ENERGY BALANCE OVER ARCTIC SEA ICE DURING THE N-ICE2015 EXPERIMENT - Professor Von P. Walden
11:30-11:45	154	CALIBRATION VALIDATION OF THE CROSS-TRACK INFRARED SOUNDER (CRIS) WITH THE AIRCRAFT BASED SCANNING HIGH-RESOLUTION INTERFEROMETER SOUNDER (SHIS) - Dr Joe Taylor	352	SOLAR SPECTRAL IRRADIANCE AND CLIMATE: CURRENT UNDERSTANDING AND FUTURE OBSERVATIONS FROM THE TOTAL AND SPECTRAL SOLAR IRRADIANCE SENSOR - Prof. Peter Pilewskie	148	SHIP-BORNE MULTISPECTRAL ROTATING SHADOW BAND RADIOMETER OBSERVATIONS OF AEROSOL PROPERTIES AND AEROSOL RADIATIVE EFFECTS - Mr Jonas Walther
11:45-12:00	264	PRELIMINARY RESULTS OF ATMOSPHERIC PROFILING SYNTHESIS OBSERVATION SYSTEM (APSO5) - Prof Daren Lu	195	THE DIURNALLY COMPLETE CERES SYN1DEG OBSERVED TOA FLUX PRODUCT - Dr David Doelling	146	SHORTWAVE ABSORPTION BY AEROSOLS IN CLOUDY SCENES FROM SHIP-BASED SHADOWBAND RADIOMETER MEASUREMENTS - Dr. Piet Stammes
12:00-12:15	239	RECENT FIELD MEASUREMENTS AND DEVELOPMENTS WITH THE GROUND-BASED ATMOSPHERIC EMITTED RADIANCE INTERFEROMETER (AERI) - Dr Jonathan Gero	222	DETERMINATION OF EARTH OUTGOING RADIATION USING A CONSTELLATION OF SATELLITES - Mr Jake Gristey	67	SHORTWAVE FLUX AT THE SURFACE OF THE ATLANTIC OCEAN: IN-SITU MEASUREMENTS, SATELLITE DATA AND PARAMETRIZATION. - Dr Alexey Sinitsyn
12:15-12:30	100	HIGH ENERGY SOLID-STATE PULSED 2-MICRON LIDAR DEVELOPMENT FOR WIND, WATER VAPOR AND CO2 MEASUREMENTS FROM GROUND AND AIRBORNE PLATFORM - Dr. Upendra Singh	163	VALIDATING CERES RADIATIVE FLUXES IN THE ARCTIC WITH AIRBORNE RADIATIVE FLUX MEASUREMENTS FROM THE ARISE CAMPAIGN - Mr Joseph Corbett	377	A HIGH-RESOLUTION OXYGEN A-BAND SPECTROMETER (HABS) AND ITS RADIATION CLOSURE - Prof Qilong Min
12:30 PM - 2:00 PM	Lunch					
2:00 PM - 3:45 PM	Poster Session 1: Themes 2,4,6,7,12					
	5	A CLIMATOLOGY OF SURFACE HEAT SOURCE ON THE TIBETAN PLATEAU IN SUMMER AND ITS IMPACTS ON THE FORMATION OF TIBETAN PLATEAU VORTEX - Dr Guoping Li				
	13	HIGH-RESOLUTION FIELD MEASUREMENTS OF THE WATER VAPOUR CONTINUUM ABSORPTION AT NEAR INFRARED ATMOSPHERIC WINDOWS - Dr Kaah Menang				
	14	APPLICATION OF MIRROR REFLECTION PRINCIPLE FOR NUMERICAL MODELING OF UNIFORM SLAB BRIGHTNESS COEFFICIENTS BY USING LINEAR SINGULAR INTEGRAL EQUATIONS - Prof Oleg Smoktly				
	15	A THEORY OF WEAK SPECTRAL LINES FORMATION IN RESPONSE TO POLARIZED RADIATION WITHIN AN "ATMOSPHERE – UNDERLYING SURFACE" SYSTEM - Prof Oleg Smoktly				
	16	ANALYTICAL APPROXIMATION FOR HOMOGENEOUS SLAB BRIGHTNESS COEFFICIENTS IN THE CASE OF STRONGLY ELONGATED PHASE FUNCTIONS - Prof Oleg Smoktly				
	19	AIRBORNE GAMMA-RAY SPECTRA: EXTRACTING PHOTOPEAKS - Eugene Druker				
	22	THE ENERGY BALANCE OVER LAND AND OCEANS: AN ASSESSMENT BASED ON DIRECT OBSERVATIONS AND CMIP5 CLIMATE MODELS - Prof Martin Wild				
	25	SPECTRAL SOLAR VARIATIONS DURING THE ECLIPSE OF MARCH 20TH, 2015 AT TWO EUROPEAN SITES - Dr. Stelios Kazadzis				
	34	UNIFIED EXIT FUNCTION FOR UPGOING AND DOWNGOING RADIATION AT ARBITRARY SYMMETRICAL LEVELS OF UNIFORM SLAB - Prof Oleg Smoktly				
	36	UPDATE ON GLOBAL LAND HYPERSPECTRAL IR EMISSIVITY DATABASE - Dr Daniel Zhou				
	39	IMPACT OF RADIATIVE TRANSFER ALGORITHM ON AEROSOL DIRECT RADIATIVE EFFECT AND FORCING - Dr Zhili Wang				
	41	INFLUENCE OF THE DIURNAL VARIATION IN AEROSOL ON THE ESTIMATION OF DIRECT RADIATIVE FORCING - Prof Jianping Guo				
	63	DETERMINATION OF AEROSOL OPTICAL DEPTH FROM SUNSHINE DURATION RECORDS - Dr. Josep-Abel González				
	66	IMPACTS OF SHAPE, SIZE, AND AREA RATIO OF SMALL ATMOSPHERIC ICE CRYSTALS ON SINGLE-SCATTERING PROPERTIES: APPLICATION TO FORWARD-SCATTERING PROBES, SATELLITE RETRIEVALS AND NUMERICAL MODELS - Dr. Junshik Um				
	73	CHARACTERISTICS OF ATMOSPHERIC AEROSOL OPTICAL DEPTH VARIATION IN CHINA DURING 1993-2012 - Assoc Prof Xiaofeng Xu				
	76	MEASURING FAST OPTICAL DEPTH VARIATIONS IN CLOUD EDGES WITH A CCD-ARRAY SPECTROMETER - Dr. Josep-Abel González				
	78	ALL-SKY RADIATIVE TRANSFER CALCULATIONS FOR IASI AND IASI – NG: THE X-IASI-AS CODE - Dr Giuliano Liuzzi				
	80	CLOUDINESS INTERANNUAL VARIATIONS IN THE ATLANTIC ARCTIC FROM THE END OF THE 19TH CENTURY - Dr Alexander Chernokulsky				
	84	VALIDATION OF CO2 PRODUCTS -INTRODUCTION OF FIELD CAMPAIGN FOR CO2 PROJECTS IN CHINA - Prof Minzheng Duan				

93	SPECTRAL UNFILTERING OF ERBE WFOV NONSCANNER SHORTWAVE OBSERVATIONS AND REVISITING ITS RADIATION DATASET FROM 1985 TO 1998 - Mr Alok Shrestha
103	SCENE IDENTIFICATION AND CLEAR-SKY COMPOSITING OF VIIRS/SNPP SATELLITE IMAGERY OVER CANADA - Dr Alexander Trishchenko
105	REMOTE SENSING OF AEROSOL OPTICAL PROPERTIES AND SOLAR HEATING RATE BY THE COMBINATION OF SKY RADIOMETER AND LIDAR MEASUREMENTS - Dr Rei Kudo
118	REMOTE SENSING OF ARCTIC BOUNDARY LAYER CLOUDS ABOVE SNOW SURFACES - Prof Manfred Wendisch
122	A STUDY OF THE EARTH RADIATION BUDGET USING A 3D MONTE-CARLO RADIATIVE TRANSFER CODE AND A-TRAIN SATELLITE DATA - Ms. Okata Megumi
124	COMPARING RETRIEVALS OF ICE CLOUD SPHERICAL ALBEDO ASSUMING VARIOUS ICE PARTICLE MODELS FOR APPLICATION TO THE GCOM-C SATELLITE MISSION - Prof Husi Letu
133	3D MONTE CARLO SIMULATION OF THE SPECTRAL-ANGULAR CHARACTERISTICS OF UPWARD SOLAR RADIATION IN BROKEN CLOUDS - Dr. Tatiana Zhuravleva
173	RECENT ADVANCES IN STUDYING THE OPTICAL PROPERTIES OF ICE CRYSTALS: IMPLICATION IN REMOTE SENSING AND RADIATION PARAMETERIZATION - Prof. Ping Yang
189	LONG-TERM SUNSHINE DURATION AND GLOBAL RADIATION DATASETS FOR ITALY FROM INSTRUMENTAL TIME SERIES - Dr Arturo Sanchez-Lorenzo
208	SHORTWAVE AND LONGWAVE RADIATIVE FORCINGS OF AEROSOLS DEPENDING ON THE VERTICAL STRATIFICATION OF AEROSOLS AND CLOUDS - Dr Eiji Oikawa
218	A SATELLITE REMOTE SENSING ALGORITHM FOR AEROSOL USING MULTI-WAVELENGTH AND MULTI-PIXEL INFORMATION AND RETRIEVAL RESULT OF GOSAT/CAI - Dr. Makiko Hashimoto
237	REASSESSMENT OF LONG-TERM TRENDS IN DOWNWARD SURFACE SHORTWAVE RADIATION OVER EUROPE FROM A HOMOGENEIZED DATASET - Dr Arturo Sanchez-Lorenzo
243	ANNUAL CYCLE OF CLOUD AND AEROSOL RADIATIVE EFFECTS OVER WEST AFRICA: OBSERVATIONALLY-BASED ESTIMATIONS - Dr Francoise Guichard
258	TIME SERIES OF THE ATMOSPHERIC INTEGRAL TRANSPARENCY COEFFICIENT (AITC) IN GERMANY - Mr Klaus Behrens
262	A NEW ICE CLOUD PARAMETERIZATION FOR INFRARED RADIATIVE TRANSFER: COMPARISON OF TWO SCATTERING SCHEMES - Dr Jerome Vidot
263	STATISTICS OF CLOUD CHARACTERISTICS OVER BEIJING, CHINA BASED ON KA BAND DOPPLER RADAR OBSERVATION - Prof Jinli Liu
267	SYNERGISTIC USE OF SPACE-BORNE CLOUD RADAR, LIDAR, AND IMAGER FOR RETRIEVAL OF CLOUD MICROPHYSICAL PROPERTIES - Dr Yuichiro Hagihara
275	SEVERAL YEARS OF SIMULTANEOUS RETRIEVALS OF ICE AND LIQUID CLOUD INTEGRATED PROPERTIES FROM THE ML METHODOLOGY - Dr Odran Sourdeval
283	DETERMINATION OF STRATOSPHERIC TEMPERATURE AND DENSITY BY GOMOS: VERIFICATION WITH RESPECT TO HIGH LATITUDE LIDAR PROFILES FROM THULE, GREENLAND - Dr Alcide di Sarra
287	DETERMINATION OF PHOTOSYNTHETICALLY ACTIVE RADIATION FROM MULTI-FILTER ROTATING SHADOWBAND MEASUREMENTS: METHOD AND VALIDATION BASED ON OBSERVATIONS AT LAMPEDUSA (35.5°N, 12.6°E) - Dr Alcide di Sarra
293	THE ARCTIC RADIATION-ICEBRIDGE SEA AND ICE EXPERIMENT (ARISE) DURING THE CRITICAL SEASONAL ICE TRANSITION - Dr William Smith Jr
299	EVALUATION OF THREE CALIPSO CLOUD PHASE PRODUCTS USING IN-SITU AIRBORNE MEASUREMENTS - Dr Gregory Cesana
303	THREE-DIMENSIONAL CLOUD TOMOGRAPHY VIA SOLAR RADIATIVE TRANSFER - Dr Anthony Davis
317	3D CLOUD HETEROGENEITY EFFECTS ON POLARIZED RADIANCES AND IMPACTS ON CLOUD DIRECTIONAL RADIATIVE SIGNATURE - Dr Celine Cornet
319	MODTRAN6: A MAJOR UPGRADE OF THE MODTRAN RADIATIVE TRANSFER CODE - Dr Robert Sundberg
325	AN EVALUATION OF THE TEMPORAL AND SPATIAL IMPACT OF MICROWAVE OBSERVATION ON FORECAST PERFORMANCE - Mr Eui-Jong Kang
333	IMPROVED QUANTIFICATION OF FAR-INFRARED WATER VAPOR ABSORPTION BY LONG-TERM RADIATIVE CLOSURE MEASUREMENTS AT THE ZUGSPITZE - Mr Andreas Reichert
334	CLIMATOLOGY OF SOLAR IRRADIANCE ATTENUATION DUE TO AEROSOL AND CLOUDS IN SÃO PAULO CITY - Prof. Marcia Yamasoe
335	A NOVEL METHOD FOR ACCURATE CALIBRATION OF HIGH SPECTRAL RESOLUTION INFRARED MEASUREMENTS OF SURFACE SOLAR RADIATION - Mr Andreas Reichert
336	THE GLOBAL ENERGY BALANCE ARCHIVE (GEBa): A DATABASE FOR THE WORLDWIDE MEASURED SURFACE ENERGY FLUXES - Prof Martin Wild
338	CHANGES IN SURFACE RADIATIVE FLUXES AS OBSERVED AT BSRN SITES AND SIMULATED IN CMIP5 CLIMATE MODELS - Prof Martin Wild
339	CLOUD INFORMATION CONTENT ANALYSIS OF MULTI-ANGULAR MEASUREMENTS IN THE OXYGEN A-BAND: APPLICATION TO 3MI AND MSPI - Mr Guillaume Merlin

	345	APPLICATION OF THE CORRECTED SINGLE SCATTERING APPROXIMATION FOR CIRRUS LIDAR SOUNDING - Prof Irina Melnikova
	347	CLOUD RADIATION IMPACT FROM OPTICS SIMULATION AND AIRBORNE OBSERVATION - Prof Irina Melnikova
	357	CALIPSO RETRIEVALS OF ICE PARTICLE NUMBER CONCENTRATION - Dr. David L. Mitchell
	359	A METHOD OF GENERATING 3D CLOUD FIELD USING CLOUDSAT/CALIPSO DATA - Dr Juan Huo
	360	COMPARISON OF CLOUD HEIGHTS FROM IR OBSERVATION ON GROUND AND SATELLITE WITH GROUND-BASED CLOUD RADAR AND CEILOMETER - Ms Wenxing Zhang
	368	DERIVING HIGH RESOLUTION UV AEROSOL OPTICAL DEPTH OVER EAST ASIA USING CAI-OMI JOINT RETRIEVAL - Ms Sujung Go
	370	DEVELOPMENT AND ACCURACY TEST OF AEROSOL RETRIEVAL ALGORITHM UTILIZING UV-VIS MEASUREMENT - Dr Mijin Kim
	376	AN OPTIMAL ESTIMATION BASED AEROSOL RETRIEVAL ALGORITHM USING OMI NEAR-UV OBSERVATIONS - Dr Ukyo Jeong
	381	ARTDECO : AN ATMOSPHERIC RADIATIVE TRANSFER DATABASE FOR EARTH AND CLIMATE OBSERVATION - Professor Philippe Dubuisson
	389	LIDAR OBSERVATIONS OF LOW-LEVEL WIND REVERSALS OVER THE GULF OF LION AND CHARACTERIZATION OF THEIR IMPACT ON THE WATER VAPOUR VARIABILITY - Prof. Paolo Di Girolamo
	394	15 YEARS OF UNIQUE DATA FROM MISR - Ms Catherine Moroney
	395	MEASURING BROADBAND IR IRRADIANCE IN THE DIRECT SOLAR BEAM - Mr Ibrahim Reda
	398	RADIATIVE AND GEOMETRIC ASPECTS OF FIRE RADIATIVE POWER MEASUREMENT FROM SPACE - Dr Charles Ichoku

Concurr						
4:15 PM - 5:45 PM	5A. Understanding Climate Using Satellite Data Datasets for climate studies : evaluation and climate change studies Session Chair: Jürgen Fischer Session Convenors: Claudia Stubenrauch, Graeme Stephens Room: Lecture Theatre 098		5B. Radiation Budget and Forcing Diagnosing and validating TOA and atmospheric radiative components (4:15-5:30) Diagnosing and validating surface energy balance components (5:30-5:45) Session Chair: Arturo Sanchez-Lorenzo Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGGB 4		5C. Surface Measurements and Field Experiments Session Chair: TBD Session Convenors: Bruce Forgan, Hayasaka Tadahiro Room: 055 - Case Room 3	
4:15-4:30	188	ASSESSMENT OF CAPABILITY OF DEPICTING CLOUD AMOUNT ANOMALIES FROM ERA-INTERIM AND MERRA USING MODIS - Dr. Yinghui Liu	238	TROPICAL ATMOSPHERIC ENERGY RELATIONSHIP TO CLOUD TYPES - Mr Seiji Kato	94	DETERMINING CLOUD CHARACTERISTICS USING A FAR INFRARED HEMISPHERICAL SKY IMAGER - Dr Julian Gröbner
4:30-4:45	145	CLOUD PROPERTIES FROM MODIS AND AVHRR USING THE CERES CLOUD ALGORITHMS: A CLOUD RECORD FOR CLIMATE STUDIES - Dr. Patrick Minnis	60	VALIDATION OF SHORTWAVE TOA AND SURFACE IRRADIANCES DERIVED FROM SEVIRI - Dr Ping Wang	Invited Speaker	
4:45-5:00	227	CLOUD DETECTION AND UNCERTAINTIES: A VIEW FROM MODIS - Prof Steven Ackerman	204	EVALUATING MERRA RADIATIVE VARIABLES IN TWO AND THREE DIMENSIONS USING CERES, CLOUDSAT, CALIPSO, AND MODIS DATA - Dr Laura Hinkelman	257	DIRECT-SUN RADIATION MEASUREMENTS: COMPARISON OF INTEGRATED PYRHELIOMETER AND SPECTRORADIOMETER MEASUREMENTS - Mr Klaus Behrens
5:00-5:15	182	EVALUATION OF CLIMATE CHANGE FINGERPRINTING USING THE REFLECTED SOLAR SPECTRA - Dr Zhonghai Jin	255	VERTICAL PROFILES OF ACTINIC FLUXES: IMPORTANCE FOR ATMOSPHERIC ABSORPTION - Dr. Piet Stammes	12	THE 4TH FILTER RADIOMETER COMPARISON FOR AEROSOL OPTICAL DEPTH MEASUREMENTS AT PMOD/WRC - Dr. Stelios Kazadzis
5:15-5:30	137	SATELLITE-BASED CLIMATE DATA RECORDS OF SURFACE SOLAR RADIATION FROM THE CM SAF - Mr Jörg Trentmann	324	RADIATION BUDGET MEASURED THROUGH THE ATMOSPHERE USING A RETURN GLIDER RADIOSONDE - Dr. Rolf Philippona	147	7-SEAS/BASELINE: COMBINED OBSERVATIONAL AND MODELING EFFORTS TO BETTER QUANTIFY AEROSOL-CLOUD INTERACTIONS OVER LAND - Dr Si-Chee Tsay
5:30-5:45	331	ANALYZING THE CLOUD GLACIATION POINT USING SATELLITE DATA. - Dr. Leopoldo Carro-Calvo	86	CORRECTION OF BROADBAND SNOW ALBEDO MEASUREMENTS AFFECTED BY UNKNOWN SLOPE AND SENSOR TILTS - Ms Ursula Weiser	176	DETERMINATION OF THE NEAR-INFRARED EXTRATERRESTRIAL SOLAR SPECTRUM USING ABSOLUTELY CALIBRATED GROUND-BASED FOURIER TRANSFORM SPECTROSCOPY - Mr Jon Elsey
6:00 PM - 8:00 PM	IRC Business Meeting (Lecture Theatre OGGB 5)					

Tuesday, April 19, 2016

9:00 AM - 10:00 AM	Keynote Speaker: Lesley Gray 402 SOLAR VARIABILITY AND ITS INFLUENCE ON CLIMATE Session Chair: TBD Session Convenor: Werner Schmutz Room: 098					
10:00 AM - 10:30 AM	Morning Coffee Break					
Concurrent Session 6						
10:30 AM - 12:30 PM	6A. General Remote Sensing Atmospheric sounding & geophysical retrievals (10:30-11:15) Remote sensing of Earth's surface (11:15-12:30) Session Chair: Carmine Serio Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre 098		6B. Understanding Climate Using Satellite Data Datasets for climate studies : evaluation & climate change studies (10:30-12:00) Evaluation of climate models (12:00-12:30) Session Chair: Dominique Bouniol Session Convenors: Claudia Stubenrauch, Graeme Stephens Room: Lecture Theatre OGGB 4		6C. Surface Measurements and Field Experiments Session Chair: TBD Session Convenors: Bruce Forgan, Hayasaka Tadahiro Room: 055 - Case Room 3	

10:30-10:45	136	ENERGY BALANCE IN THE MESOSPHERE AND THERMOSPHERE AS MEASURED BY SABER - Dr. Martin Mlynčzak	355	ON THE ZONAL NEAR CONSTANCY OF FRACTIONAL ATMOSPHERIC SOLAR ABSORPTION - Dr Maria Hakuba	384	DIRECT SOLAR IRRADIANCE MEASUREMENTS WITH A CRYOGENIC SOLAR ABSOLUTE RADIOMETER - Dr Benjamin Walter
10:45-11:00	59	OZONE INSTANTANEOUS LONGWAVE RADIATIVE EFFECT FROM IASI AND TES OBSERVATIONS - Dr Daniel Hurtmans	249	FLUCTUATIONS IN CLOUD-TOP HEIGHT MEASURED BY CALIPSO FROM 2006-2015 - Dr Abhnil Prasad	380	PERFORMANCE EVALUATION OF RADIATION SENSORS FOR THE SOLAR ENERGY SECTOR - Dr Laurent Vuilleumier
11:00-11:15	332	QUANTIFICATION OF THE NEAR-INFRARED WATER VAPOR CONTINUUM FROM ATMOSPHERIC MEASUREMENTS AT THE ZUGSPITZE - Mr Andreas Reichert	117	DECADAL TREND ANALYSIS OF TOTAL COLUMN WATER VAPOUR ABOVE LAND SURFACES USING MERIS AND GPS OBSERVATIONS - Prof. Juergen Fischer	190	AN EVALUATION OF THE SPN1 SUNSHINE PYRANOMETER AS A SUNSHINE DURATION RECORDER - Dr. Nicole Hyett
11:15-11:30	199	SEA ICE LEADS IN THE ARTIC: A VIEW FROM MODIS - Prof Steven Ackerman	305	DOES THE CLIMATE WARMING HIATUS EXIST OVER THE TIBETAN PLATEAU? - Prof Anmin Duan	367	VERIFICATION OF THE ISO CALIBRATION METHOD FOR FIELD PYRANOMETERS UNDER TROPICAL SKY CONDITIONS - Associate Prof. Dr. Serm Janjai
11:30-11:45	48	SPATIAL AND INTERANNUAL VARIATION OF SATELLITE DERIVED SNOW GRAIN SIZE ON GREENLAND ICE SHEET - Prof Teruo Aoki	104	IMPACTS OF URBANIZATION ON THE THERMAL ENVIRONMENTS OF METEOROLOGICAL STATIONS AND SURFACE AIR TEMPERATURE SERIES: SATELLITE-OBSERVED EVIDENCES - Dr Yuan-Jian Yang	119	A NEW DIRECT IRRADIANCE SPECTRORADIOMETER TO MEASURE SPECTRAL SOLAR IRRADIANCE AND AEROSOL OPTICAL DEPTH - Dr. Natalia Kouremeti
11:45-12:00	149	SPATIO-TEMPORAL VARIABILITY OF SNOW BRDF AND GRAIN SIZE DERIVED FROM AIRBORNE AND GROUND-BASED OBSERVATIONS IN ANTARCTICA - Mr Tim Carlsen	294	ASSESSMENT OF TRENDS IN DOWNWARD SHORTWAVE RADIATION BASED ON THREE DECADES OF SATELLITES BASED PRODUCTS OVER EUROPE - Dr Arturo Sanchez-Lorenzo	361	AN INVESTIGATION OF SKY RADIANCE FROM THE MEASUREMENT AT A TROPICAL SITE - Dr. Korntip Tohsing
12:00-12:15	92	RETRIEVAL OF LAND SURFACE REFLECTANCE FROM REMOTE SENSING DATA AND ITS VALIDATION: APPLICATION TO MODIS AND VIIRS - Prof. Eric Vermote	27	EMPLOYING ISCCP CLOUD REGIMES FOR EVALUATION OF CMIP5 MODEL CLOUDINESS - Dr Lazaros Oreopoulos	42	CLOUD COVER ESTIMATION OPTICAL PACKAGE: NEW FACILITY, ALGORITHMS AND TECHNIQUES - Mr Mikhail Krinitskiy
12:15-12:30	77	THE VERY FIRST SEVIRI MULTI-TEMPORAL AND MULTI-SPECTRAL LEVEL-2 PROCESSOR FOR THE SIMULTANEOUS PHYSICAL RETRIEVAL OF SURFACE TEMPERATURE AND EMISSIVITY - Assoc. Prof. Guido Masiello	241	THE RADIATION BUDGET OF THE WEST AFRICAN MONSOON IN CMIP5 MODELS AND IN THE NEW VERSION OF CNRM-CM - Dr Romain Roehrig	162	AEROSOL-RADIATION-CLOUD INTERACTIONS IN THE SOUTH-EAST ATLANTIC: FUTURE SUBORBITAL ACTIVITIES TO ADDRESS KNOWLEDGE GAPS IN SATELLITE AND MODEL ASSESSMENTS - Dr. Jens Redemann
Lunch Break						
12:30 PM - 2:00 PM						
Concurrent Session 7						
2:00 PM - 3:30 PM	7A. General Remote Sensing Remote sensing of Earth's surface (2:00-2:30) Aerosol and air pollution characterization (2:30-3:30) Session Chair: Carmine Serio Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre 098		7B. Understanding Climate Using Satellite Data Evaluation of climate models (2:00-3:15) Climate processes and feedbacks (3:15-3:30) Session Chair: Steven Ackerman Session Convenors: Claudia Stubenrauch, Graeme Stephens Room: Lecture Theatre OGG 4		7C. Ocean Optics Session Chair: TBD Session Convenors: Knut Stamnes, Jacek Chowdhary Room: 055 - Case Room 3	
2:00-2:15	17	REMOTELY SENSING GLOBAL SURFACE AIR PRESSURE USING DIFFERENTIAL ABSORPTION BAROMETRIC RADAR - Dr Bing Lin	323	USE OF ATMOSPHERIC STABILITY DERIVED FROM MSU/AMSU DATA TO EXAMINE THE WEAKENING OF WALKER CIRCULATION IN CMIP5 CLIMATE SIMULATIONS - Prof B.J. Sohn	298	ACCOUNTING FOR POLARIZATION IN THE SIMULATION AND INVERSION OF SPACEBORNE OCEAN COLOR OBSERVATIONS - Dr Jacek Chowdhary
2:15-2:30	177	FAST REMOTE SENSING OF SURFACE-ATMOSPHERIC ENERGETICS - Dr. Marwan Katurji	Invited Speaker		219	MARKOV CHAIN MODELING OF RADIATIVE TRANSFER IN A COUPLED ATMOSPHERE-OCEAN SYSTEM AND APPLICATION TO AEROSOL AND WATER-LEAVING RADIANCE RETRIEVAL
2:30-2:45	232	A GLOBAL DECADAL RECORD OF AEROSOL ABSORPTION PROPERTIES FROM OMI OBSERVATIONS - Dr Omar Torres	164	EVALUATION OF THE ARCTIC SURFACE RADIATION BUDGET IN CMIP5 MODELS - Ms Robyn Boeke	234	ASSESSMENT AND APPLICATIONS OF MULTIANGLE IMAGING POLARIMETRY FOR ATMOSPHERIC CORRECTION IN PRESENCE OF ABSORBING AEROSOLS - Dr Olga Kalashnikova
2:45-3:00	261	MULTI-SATELLITE RETRIEVAL OF SINGLE SCATTERING ALBEDO AND ITS IMPACT ON OUTGOING FLUX IN THE PRESENCE OF WATER VAPOUR - Ms Kruthika Eswaran	95	QUANTIFICATION OF SYSTEMATIC BIASES OF CLOUD-RADIATION AND THEIR IMPACTS ON GLOBAL CLIMATE MODELS USING SATELLITE OBSERVATIONS - Dr Jui-Lin Li	51	REFLECTANCE AND TRANSMITTANCE PROPERTIES OF SEA SURFACES AS FUNCTION OF SEA STATE AND WIND SPEED - Dr Martin Hieronymi
3:00-3:15	378	GOCI YONSEI AEROSOL RETRIEVAL (YAER) ALGORITHM AND VALIDATION DURING DRAGON-NE ASIA 2012 CAMPAIGN - Mr Myungje Choi	295	EVALUATION OF CLOUD AND HEATING RATE PROFILES IN EIGHT GCMS USING A-TRAIN SATELLITE OBSERVATIONS - Dr Gregory Cesana	192	ACCURT: A VERSATILE TOOL FOR RADIATIVE TRANSFER SIMULATIONS IN THE COUPLED ATMOSPHERE-OCEAN SYSTEM - Prof Knut Stamnes
3:15-3:30			152	"IRIS EFFECT" IN OBSERVATIONS AND MODELS - Dr. Jui-Lin Li	212	SIMULATION OF GLINT REFLECTANCE AND DETERMINATION OF SURFACE ROUGHNESS OF TURBID COASTAL AND INLAND AQUATIC WATERS - Prof Knut Stamnes
3:30 PM - 4:00 PM						
Afternoon Coffee Break						
Concurrent Session 8						
4:00 PM - 5:15 PM	8A. Southern Ocean and Antarctica: Radiation, Clouds, Aerosols, and Sea-Ice Session Chair: Roger Davies Session Convenors: Roger Davies, Greg McFarquhar, Adrian McDonald Room: 057 - Case Room 2		8B. Understanding Climate Using Satellite Data Climate processes and feedbacks Session Chair: Hajime Okamoto Session Convenors: Claudia Stubenrauch, Graeme Stephens Room: Lecture Theatre OGG 4		8C. Ocean Optics Session Chair: TBD Session Convenors: Knut Stamnes, Jacek Chowdhary Room: 055 - Case Room 3	
4:00-4:15	174	LONGWAVE RADIATIVE EFFECTS OF ANTARCTIC BLOWING SNOW AS OBSERVED BY CALIOP, CERES, MODIS - Dr Yuekui Yang	351	ENSO TROPICAL CLOUD AND TOA RADIATIVE SIGNATURES FROM CERES OBSERVATION - Dr. Moguo Sun	213	CORRECTING BIDIRECTIONAL EFFECTS IN REMOTE SENSING REFLECTANCE FROM COASTAL WATERS - Prof Knut Stamnes
4:15-4:30	143	SPECTRAL CHARACTERISATION OF THE SURFACE LONGWAVE RADIATION OVER THE EAST ANTARCTIC PLATEAU - Dr Luca Palchetti	167	EVOLUTION OF RADIATIVE PROPERTIES ALONG TROPICAL MESOSCALE CONVECTIVE SYSTEM LIFE CYCLE - Dr Dominique Bouniol	266	THE QUANTITATIVE AND EFFICIENT INCLUSION OF INELASTIC SCATTERING EFFECTS IN A MATRIX-OPERATOR RADIATIVE TRANSFER MODEL FOR THE COUPLED ATMOSPHERE-OCEAN SYSTEM - Mr Jonas Von Bismarck
4:30-4:45	45	CLOUD FRACTIONS ESTIMATED FROM SHIPBOARD WHOLE-SKY CAMERA AND CEILOMETER OBSERVATIONS BETWEEN JAPAN AND ANTARCTICA - Dr Makoto Kuji	109	THE EVOLUTION OF MICROPHYSICAL PROPERTIES OF TROPICAL MESOSCALE CONVECTIVE SYSTEMS - Ms. Nurliana Sagita Putri	196	IMPACT OF PARTICULATE AND DISSOLVED MATERIAL ON LIGHT ABSORPTION PROPERTIES IN A HIGH-ALTITUDE LAKE IN TIBET, CHINA - Prof Jakob Stamnes

4:45-5:00	365	OBSERVED CLOUD MORPHOLOGY AND INFERRED MICROPHYSICS OVER THE SOUTH PACIFIC FROM MISR MEASUREMENTS OF SHORTWAVE REFLECTIVITY - Prof. Roger Davies	296	THE ROLE OF CLOUD AND DUST FEEDBACKS IN GENERATING TROPICAL NORTH ATLANTIC MULTIDECADAL VARIABILITY - Dr Tianle Yuan	207	RETRIEVAL OF ATMOSPHERIC AND MARINE PARAMETERS IN COASTAL AND INLAND AQUATIC ENVIRONMENTS FROM GEOSTATIONARY PLATFORMS: CHALLENGES AND OPPORTUNITIES - Prof Knut Stamnes
5:00-5:15			386	MESOSCALE HIGH-ALTITUDE CLOUD SYSTEMS DETERMINED FROM IR SOUNDERS AND THEIR INFLUENCE ON THE ATMOSPHERIC ENVIRONMENT - Dr Claudia Stubenrauch	158	RETRIEVAL OF WATER INHERENT OPTICAL PROPERTIES FROM OCEAN COLOUR SATELLITE DATA USING OPTIMAL ESTIMATION - Prof Jürgen Fischer
6:00 PM - 10:00 PM Conference Dinner (Auckland Museum)						
Wednesday, April 20, 2016						
Award speeches						
9:30 AM - 11:00 AM		Session Chair: Werner Schmutz Session Convenor: Werner Schmutz Room: 098				
9:30 AM - 10:00 AM	Keynote Speaker: Young Scientist Winner					
10:00 AM - 11:00 AM	Keynote Speaker: Gold Medal Winner					
11:00 AM - 11:30 AM	Morning Coffee Break					
Concurrent Session 9						
11:30 AM - 12:45 PM	9A. Particle Radiative Properties Part I Session Chairs: Paolo di Girolamo, Teruo Aoki Session Convenors: Teruo Aoki, Hiroshi Ishimoto, Paolo di Girolamo Room: Lecture Theatre OGGB 3			9B. Understanding Climate Using Satellite Data Climate processes and feedbacks Session Chair: Claudia Stubenrauch Session Convenors: Claudia Stubenrauch, Graeme Stephens Room: Lecture Theatre OGGB 4		
11:30-11:45	161	ELECTRON MICROSCOPE STEREOGRAMMETRY FOR MODELLING MINERAL DUST OPTICAL PROPERTIES - Dr. Konrad Kandler	274	RELATIONSHIP BETWEEN ICE SUPERSATURATION AND ICE MICROPHYSICS INFERRED FROM CLOUDSAT, CALIPSO AND AIRS - Prof Hajime Okamoto		
11:45-12:00	211	OPTICAL PROPERTIES AND RADIATIVE EFFECTS OF AEROSOLS IN THE SYDNEY BASIN - Dr Gail Box	224	MONTHLY COVARIABILITY OF AMAZONIAN HJVEACTIVE CLOUD PROPERTIES AND RADIATIVE DIURNAL CYCLE - Dr Jason Dodson		
12:00-12:15	179	CLOUD-RELATED VARIATIONS IN AEROSOL PROPERTIES OBSERVED BY MODIS - Dr Tamas Varnai	139	ON THE SENSITIVITY OF THE DIURNAL CYCLE IN THE AMAZON TO CONVECTIVE INTENSITY - Mr Kyle Itterly		
12:15-12:30	128	OPTICAL PROPERTIES OF MINERAL DUST AEROSOL IN THE THERMAL INFRARED - Dr Claas H. Köhler	135	DOES A RELATIONSHIP BETWEEN ARCTIC LOW CLOUDS AND SEA ICE MATTER? - Dr. Patrick Taylor		
12:30-12:45	49	ESTIMATION OF THE VOLCANIC ASH REFRACTIVE INDEX FROM SATELLITE INFRARED SOUNDER DATA - Dr Hiroshi Ishimoto	20	SEPTEMBER SEA ICE EXTENT PREDICTED BY REFLECTED SOLAR RADIATION - Mr. Yizhe Zhan		
12:45 PM - 2:00 PM	Lunch Break					
Concurrent Session 10						
2:00 PM - 3:30 PM	10A. Particle Radiative Properties Part II Session Chairs: Teruo Aoki, Hiroshi Ishimoto Session Convenors: Teruo Aoki, Hiroshi Ishimoto, Paolo di Girolamo Room: Lecture Theatre OGGB 3			10B. Weather, Climate and Environment Applications Session Chair: David Tobin Session Convenors: Allen Huang, Zhang Hua Room: Lecture Theatre OGGB 4		10C. Solar UV Radiation Session Chair: Julian Groebner Session Convenors: Mario Blumthaler, Julian Groebner, Richard McKenzie Room: 055 - Case Room 3
2:00-2:15	24	MODELLING RADIATIVE PROPERTIES OF MORPHOLOGICALLY COMPLEX AND CHEMICALLY HETEROGENEOUS AEROSOLS - Prof Michael Kahnert	30	THE UPDATED EFFECTIVE RADIATIVE FORCING OF MAJOR ANTHROPOGENIC AEROSOLS AND THEIR EFFECTS ON GLOBAL CLIMATE AT PRESENT AND IN THE FUTURE - Dr. Prof. Hua Zhang	64	REAPPRAISAL AND REANALYSIS OF 25 YEARS OF SOLAR SPECTRAL UV MEASUREMENTS - Mr Ben Liley
2:15-2:30	Invited Speaker		56	ENVIRONMENTAL ASSESSMENT ON AEROSOL EFFECTS IN ASIAN REGION BASED ON MODELING STUDIES - Prof Toshihiko Takemura	Invited Speaker	
2:30-2:45	171	ON THE SIMULATIONS OF THE OPTICAL PROPERTIES OF COMPLEX PARTICLES: APPLICATION TO REMOTE SENSING - Prof. Ping Yang	217	DEVELOPMENT OF AN ALGORITHM SUITE FOR MODIS AND VIIRS CLOUD CLIMATE DATA RECORD CONTINUITY - Dr Steven Platnick	68	PEAK UV: SPECTRAL CONTRIBUTIONS FROM CLOUD ENHANCEMENTS - Dr Richard McKenzie
2:45-3:00	38	EFFECT OF SNOW GRAIN SHAPE ON SNOW ALBEDO - Ms Cheng Dang	284	WATER AND ENERGY BUDGETS IN A TWO-DIMENSIONAL MODEL OF THE WEST AFRICAN MONSOON : ROLE OF CLOUD-RADIATION INTERACTION - Mr Philippe Peyrille	54	ENHANCEMENT OF UV RADIATION RECEIVED AT THE SURFACE IN PARTLY CLOUDY CONDITIONS: A MONTE CARLO MODEL - Assoc Prof Manuel Nunez
3:00-3:15	330	PRIMARY STUDY ON RADAR CROSSSECTION OF EDGE-CONGLUTINATED PARTICLES IN CLOUD - Prof Zhenhui Wang	312	IMPACTS OF A MODIFIED PROGNOSTIC CLOUD FRACTION SCHEME ON A GLOBAL FORECASTING SYSTEM - Dr R.-S. Park	82	THE EFFECT OF SUN GLINT ON SKY RADIANCE IN THE UV AND VISIBLE WAVELENGTHS - Dr. Mario Blumthaler
3:15-3:30	279	DEVELOPMENT OF MULTIPLE SCATTERING POLARIZATION LIDAR TO OBSERVE DEPOLARIZATION RATIO OF OPTICALLY THICK LOW LEVEL CLOUDS - Prof Hajime Okamoto	292	THE USE OF SATELLITE RADIATION MEASUREMENTS FOR NOWCASTING, NEARCASTING AND FORECASTING OF WEATHER AND ENVIRONMENT - Dr. Allen Huang	74	SENSITIVITY ANALYSIS OF OZONE RETRIEVAL USING UV MEASUREMENTS AND DIFFERENT METHODS - Dr. Luca Egli
3:30 PM - 4:00 PM	Afterno					
4:00 PM - 5:30 PM	Poster Session 2: Themes 3,5,8,9,10,11					
	0	THE EFFECTS OF AEROSOLS ON THE GLOBAL WEATHER FORECASTING				

31	IMPROVEMENT OF HYDROMETEOR PARTICLE TYPE DISCRIMINATION DERIVED FROM CLOUDSAT AND CALIPSO - Ms Maki Kikuchi
53	THE AUSTRIAN UV MONITORING NETWORK - Dr. Mario Blumthaler
55	3-D SHAPE MODELING OF SINGLE MINERAL DUST PARTICLES FROM MULTIVIEW ELECTRON MICROSCOPE IMAGES - Dr. Konrad Kandler
58	HOW LARGE AND HOW LONG ARE UV AND TOTAL RADIATION ENHANCEMENTS? - Dr. Josep Calbó
70	CHARACTERIZING GLOBAL DISTRIBUTIONS OF DUSTY CLOUD USING CALIPSO - Prof. , Dr. Yuhong Yi
81	MUTUAL VARIATIONS OF CLOUDINESS AND SEA ICE IN THE ANTARCTIC AND ARCTIC - Dr Alexander Chernokulsky
96	COMPARISON OF ERYTHEMAL IRRADIANCES FROM OMI SATELLITE PRODUCTS AND GROUND-BASED OBSERVATIONS: THE EFFECT OF CLOUDINESS AND AEROSOLS - Professor Jerónimo Lorente
99	DETECTING CLIMATE TRENDS WITH HIGH SPECTRAL RESOLUTION INFRARED SATELLITE RADIANCES - Mr Daniel DeSlover
102	LONG-TERM VARIATIONS OF SNOW/ICE EXTENT, ALBEDO AND RADIATION BUDGETS OVER CANADA AND NEIGHBORING REGIONS FOR 2000-2014 PERIOD - Dr Alexander Trishchenko
110	DETERMINATION OF THE OPTICAL PROPERTIES ON DIFFERENT AEROSOLS TYPES BY THE NUMERICAL SIMULATION FROM RADIATIVE TRANSFER MODEL - Prof. Yong Han
113	DEVELOPMENT OF RADIATIVE TRANSFER MODEL INCLUDING POLARIZATION EFFECT IN COUPLED ATMOSPHERE-OCEAN SYSTEM - Dr Yoshifumi Ota
114	CLIMATE RESPONSE TO THE EFFECTS OF ANTHROPOGENIC AEROSOLS - Dr Makiko Nakata
115	AN UPDATE MODEL FOR 1D VECTOR RADIATIVE TRANSFER PROBLEM - Dr Makiko Nakata
127	UV RADIATION VITAMIN D DEFICIENCY OVER NORTHERN EURASIA - Ms Ekaterina Zhdanova
134	AEROSOL OPTICAL-MICROPHYSICAL PROPERTIES DURING THE SUMMER WILDFIRES IN SIBERIA IN 2012 FROM THE GROUND-BASED PHOTOMETRIC OBSERVATIONS - Dr. Tatiana Zhuravleva
138	EVALUATING INTERANNUAL VARIABILITY OF THE TOA ENERGY BUDGET IN CMIP5 - Dr. Noel Baker
169	A MULTI-YEAR ASSESSMENT OF COSMIC RADIO OCCULTATION AND AIRS HYPERSPECTRAL INFRARED SOUNDER STRATOSPHERIC TEMPERATURE PRODUCTS - Ms Michelle Feltz
178	SHADING AREAS, SKY-VIEW FACTOR AND UV RADIATION IN URBAN CANOPY OF MOSCOW-CITY - Dr Pavel Konstantinov
203	ANALYSIS AND PARAMETERIZATION OF ABSORPTION PROPERTIES OF NORTHERN NORWEGIAN COASTAL WATER - Prof Jakob Stamnes
205	COMPARISON OF THE ABSORPTION PROPERTIES OF COLORED DISSOLVED ORGANIC MATTER IN SIX DIFFERENT CASE 2 WATER BODIES - Prof Jakob Stamnes
206	REMOTE SENSING OF AEROSOL AND MARINE PARAMETERS IN COASTAL ENVIRONMENTS: THE ADVANTAGE OF USING POLARIZED RADIATIVE TRANSFER SIMULATIONS OF THE COUPLED ATMOSPHERE-WATER SYSTEM TO ANALYZE OCEAN COLOR MEASUREMENTS - Prof Knut Stamnes
209	THE CRUCIAL ROLE OF CLOUDS IN THE RELATIONSHIP BETWEEN LARGE-SCALE ATMOSPHERIC VARIABILITY AND SURFACE RADIATIVE FLUX ANOMALIES IN THE ARCTIC DURING SUMMER - Dr Bradley Hegyi
231	CLOUD MICROPHYSICAL PROPERTIES IN TROPICAL PACIFIC REGIONS DERIVED FROM CLOUDSAT AND CALIPSO - Mr. Naoya Takahashi
235	REGIONAL PROPERTIES OF AEROSOL-CLOUD INTERACTION ESTIMATED FROM LONG-TERM SATELLITE ANALYSIS - Dr. Miho Sekiguchi
254	SPATIO-TEMPORAL VARIABILITY OF HEAT BALANCE COMPONENTS AND CO2 RADIATION FORCING FOR THE TERRITORY OF WEST SIBERIA - Mrs Elena Kharyutkina
269	INFORMATION CONTENT IN CLOUD PHYSICAL PROPERTIES DERIVED FROM SATELLITE ACTIVE REMOTE SENSORS - Dr Kaori Sato
271	STUDY OF UV CLOUD MODIFICATION FACTORS IN SOUTHERN PATAGONIA - Dr Elian Wolfram
280	ANOMALOUS INCREASING EFFECT ON UV RADIATION BY CLOUDINESS AT A HIGH ALTITUDE OBSERVATORY - Dr Pablo Saavedra Garfias
281	ATTENUATION BY CLOUDS OVER ABNORMAL UV RADIATION IMPACT FOR LOW STRATOSPHERIC OZONE SITUATIONS - Mr Facundo Orte
291	DROUGHT DISTRIBUTION AND RELATED REGIONAL ATMOSPHERIC PROCESSES IN UKRAINE - Ms Inna Semenova
304	DEVELOPMENT AND VALIDATION OF THE CALIPSO OCEAN SUBSURFACE DATA RECORD - Dr. Yongxiang Hu

	313	ASSIMILATING HYPERSPECTRAL SOUNDER MEASUREMENTS TO IMPROVE THE INITIAL CONDITION FOR THE ASIAN DUST AEROSOL MODEL - Mr. Young-Chan No
	315	RETRIEVING ANTARCTIC ICE SHEET TEMPERATURE FROM AMSR BRIGHTNESS TEMPERATURE MEASUREMENTS - Mr Sang-Moo Lee
	318	USING SATELLITE-BASED GRIDDED CLOUD OVERLAPPING PARAMETER TO IMPROVE CLOUD AND RADIATION SIMULATION IN GCMS - Dr Xianwen Jing
	321	CORRELATED K-DISTRIBUTION TREATMENT OF CLOUD OPTICAL PROPERTIES - Dr Peng Lu
	322	SIMULATING DIRECT EFFECTS OF DUST AEROSOL ON ARID AND SEMI-ARID REGIONS USING AN AEROSOL-CLIMATE COUPLED SYSTEM - Dr Shuyun Zhao
	337	IMPACT OF CLIMATE CHANGE ON FUTURE SOLAR POWER PRODUCTION - Prof Martin Wild
	348	ANALYSIS OF ERYTHEMAL ULTRAVIOLET IRRADIANCE OVER SÃO PAULO - Miss. Kátia Barros
	350	TOWARDS A BETTER UNDERSTANDING OF SURFACE SOLAR RADIATION CLIMATOLOGY AND TRENDS IN AFRICA AND THE MIDDLE EAST: BUILDING A GROUND-BASED DATASET - Dr Arturo Sanchez-Lorenzo
	354	RADIATIVE TRANSFER MODEL OF SNOW-SEA ICE SYSTEM - Dr Tomonori Tanikawa
	358	GLOBAL HORIZONTAL IRRADIANCE, DIRECT NORMAL IRRADIANCE, AND AEROSOL OPTICAL DEPTH FROM NOAA ISIS AND SURFRAD STATIONS FOR VERIFICATION OF SOLAR FORECASTS FROM THE NOAA HRRR AND RAP MODELS - Dr. Kathleen Lantz
	363	25 YEARS OF SPECTRAL UV MEASUREMENTS AT SODANKYLÄ, FINLAND - Dr Kaisa Lakkala
	366	INFLUENCE OF VARIATION IN THE RADIATION BALANCE ON THE VARIABILITY OF THE MAXIMUM RUNOFF OF THE RIVERS OF UKRAINE IN CONDITIONS OF AN UNSTABLE CLIMATE - Ms Valeriya Ovcharuk
	373	EFFECTS OF CLOUD, AEROSOL, AND OZONE ON SURFACE SPECTRAL ULTRAVIOLET AND TOTAL IRRADIANCE OBSERVED IN SEOUL, KOREA - Lee Hana
	383	UV EXPOSURE IN ARTIFICIAL AND NATURAL WEATHERING: A COMPARATIVE STUDY - Dr. Anu Heikkilä
	385	QUANTIFYING EXCEPTIONALITY OF UV INDICES IN JOKIOINEN, FINLAND, OVER THE YEARS 1995-2015 - Dr. Anu Heikkilä
	390	CRITERIAL OPTICS OF OCEANS AND GLACIERS WITH TECHNOGENIC POLLUTIONS - Prof. Vladimir Merzlikin
	396	THE FOURTH PHASE OF RAMI RESULTS & ITS BENEFITS TO THE QA4ECV PROJECT. - Dr Christian Lanconelli

Thursday, April 21, 2016

9:00 AM - 10:00 AM	Keynote Speaker: David Diner	
	400	LOOKING BACK, LOOKING FORWARD: SCIENTIFIC AND TECHNOLOGICAL ADVANCES IN MULTIANGLE IMAGING OF AEROSOLS AND CLOUDS Session Chair: Roger Davies Session Convenor: Werner Schmutz Room: 098

10:00 AM - 10:30 AM	Morning Coffee Break	
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Concurrent Session 11		
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10:30 AM - 12:30 PM		11A. General Remote Sensing Aerosol and air pollution characterization	11B. Weather, Climate and Environment Applications	11C. Solar UV Radiation	
		Session Chair: Minzheng Duan Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre 098	Session Chair: Steven Platnic Session Convenors: Allen Huang, Zhang Hua Room: Lecture Theatre OGG8.4	Session Chair: Mario Blumthaler Session Convenors: Mario Blumthaler, Julian Groebner, Richard McKenzie Room: 055 - Case Room 3	
10:30-10:45	157	TESTING THE TWO-LAYER MODEL FOR ESTIMATING CLOUD-INDUCED CLEAR SKY REFLECTANCE ENHANCEMENT USING LES/SHDOM COMPUTED RADIANCES - Dr Guoyong Wen	181 Invited Speaker	126 Invited Speaker	RESEARCH ATTAINED FROM ACCURATE, LONG-TERM MEASUREMENTS OF SPECTRAL GLOBAL IRRADIANCE - Dr. Germar Bernhard
10:45-11:00	10	RETRIEVING AEROSOL PLUME HEIGHT INFORMATION BY SYNERGISTIC USE OF VIIRS, OMPS, AND CALIOP OBSERVATIONS - Dr. N. Christina Hsu			
11:00-11:15	233	TOMOGRAPHIC AEROSOL PLUME RECONSTRUCTION FROM MISR SATELLITE DATA - Mr Michael Garay	33	327	MONTE CARLO ANALYSIS OF UNCERTAINTY OF TOTAL ATMOSPHERIC OZONE DERIVED FROM MEASURED SPECTRA - Dr. Petri Kärhä
11:15-11:30	265	AEROSOL CLASSIFICATION: POTENTIAL FOR PRESENT AND FUTURE SPACEBORNE IMAGERS - Mr Ronald Scheirer	116	320	SIMULTANEOUS RETRIEVAL OF TOTAL OZONE COLUMN AMOUNTS AND CLOUD/AEROSOL OPTICAL DEPTHS FROM MULTI-CHANNEL, MODERATE BANDWIDTH FILTER INSTRUMENTS - Prof Knut Stamnes
11:30-11:45	230	ASSESSING SURFACE BRDF-RELATED BIASES USING TARGET MODE OBSERVATIONS FROM THE ORBITING CARBON OBSERVATORY-2 - Dr Vijay Natraj	11	8	TRACEABILITY OF SOLAR UV MEASUREMENTS USING THE QASUME REFERENCE SPECTRORADIOMETER - Dr. Gregor Hülsen

11:45-12:00	155	OVERVIEW OF MAIAC ALGORITHM FOR MODIS - Dr Alexei Lyapustin	246	IMPACT OF AEROSOL RADIATIVE EFFECT ON CONVECTIVE CLOUD AND PRECIPITATION: IMPLICATIONS FOR WEATHER FORECAST AND CLIMATE STUDIES - Prof Zhanqing Li	88	VALIDATION AND APPLICATION OF A DATABASE OF SOLAR UV AVAILABILITY ACROSS EUROPE - Prof Ann Webb
12:00-12:15	225	IMPROVED OZONE AND CARBON MONOXIDE PROFILE RETRIEVALS USING MULTISPECTRAL MEASUREMENTS FROM NASA "A TRAIN", NPP, AND S5P SATELLITES - Dr. Dejian Fu	85	(AC)3 : A GERMAN INITIATIVE TO STUDY ARCTIC AMPLIFICATION—CLIMATE RELEVANT ATMOSPHERIC AND SURFACE PROCESSES; AND FEEDBACK MECHANISMS - Prof Manfred Wendisch	223	LONG-TERM TREND OF GLOBAL SOLAR ULTRAVIOLET-B, ULTRAVIOLET-A AND TOTAL IRRADIANCE MEASURED IN JAPAN SINCE 2001 - Dr Shu Takeshita
12:15-12:30	52	THE PM2.5 REMOTE SENSING (PMRS) METHOD AND EXPERIMENTAL VALIDATION RESULTS - Prof Zhengqiang Li	193	TRENDS IN CLEAR-SKY SHORTWAVE RADIATION COMBINING SATELLITE AND GROUND BASED OBSERVATIONS OVER EUROPE SINCE THE 1980S - Dr Arturo Sanchez-Lorenzo	329	FACILITY FOR DETERMINING ACTION SPECTRA OF UV PHOTODEGRADATION - Ms Anna Vaskuri
12:30 PM - 2:00 PM	Lunch Break					
Concurrent Session 12						
2:00 PM - 3:30 PM	12A. General Remote Sensing Radiometric calibration and future measurement sensitivity Session Chair: Allen Larar Session Convenors: Allen Larar, Bill Smith, Carminer Serio, Daren Lu Room: Lecture Theatre 098		12B. Weather, Climate and Environment Applications Session Chair: Carolin Klingler Session Convenors: Allen Huang, Zhang Hua Room: Lecture Theatre OGG8 4		12C. Radiation Budget and Forcing Diagnosing and validating surface energy balance components Session Chair: Arturo Sanchez-Lorenzo Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGG8 3	
2:00-2:15	159	THE IR ABSOLUTE RADIANCE INTERFEROMETER (ARI) PROTOTYPE FOR CLARREO: OVERVIEW AND FLIGHT OPPORTUNITIES (PART-1) - Dr. Henry (Hank) Revercomb	397 Invited Speaker	THE POSSIBLE AEROSOL-CIRRUS INTERACTIONS IN THE LATERAL BOUNDARY OF CIRRUS CLOUD - Prof Yunfei Fu	302	SURFACE ENERGY BUDGET CHANGES DURING THE EARLY 21ST CENTURY AUSTRALIAN DROUGHT - Dr Norman Loeb
2:15-2:30	175	THE IR ABSOLUTE RADIANCE INTERFEROMETER (ARI) PROTOTYPE FOR CLARREO: NEW TECHNOLOGIES FOR ON-ORBIT VERIFICATION AND TEST (PART-2) - Mr Fred Best				90
2:30-2:45	194	CHARACTERIZING DEEP CONVECTIVE CLOUDS AS AN INVARIANT CALIBRATION TARGET - Dr David Doelling	388	CHARACTERIZATION OF TURBULENT PROCESSES BY THE RAMAN LIDAR SYSTEM BASIL IN THE FRAME OF THE HD(CP)2 OBSERVATIONAL PROTOTYPE EXPERIMENT – HOPE - Prof. Paolo Di Girolamo	21	THE SURFACE RADIATION BUDGET UNDER CLEAR SKY CONDITIONS AND ITS REPRESENTATION IN CMIP5 MODELS - Prof Martin Wild
2:45-3:00	250	A RADIOMETRIC TRACEABILITY CONCEPT OF THE NETWORK FOR DETECTION OF MESOSPHERIC CHANGE (NDMC) - M. Eng. Max Reiniger	328	ACCURATE SIMULATION OF PARTICULATE MATTERS AND ITS OPTICAL PROPERTIES OVER EAST ASIA - Prof. Tie Dai	153	ARCTIC MELT PONDS AND ENERGY BALANCE IN THE CLIMATE SYSTEM - Dr Ivan Sudakov
3:00-3:15	97	DEVELOPMENT OF NEXT GENERATION RADIOMETRIC STANDARDS; THE NIST ON A CHIP PARADIGM - Mr Malcolm White	108	VALIDATION OF HIGH-RESOLUTION AEROSOL OPTICAL THICKNESS SIMULATED BY A GLOBAL NON-HYDROSTATIC MODEL AGAINST REMOTE SENSING MEASUREMENTS - Dr Daisuke Goto	172	NASA/GEWEX SURFACE RADIATION BUDGET: INTEGRATED DATA PRODUCT WITH REPROCESSED RADIANCE, CLOUD, AND METEOROLOGY INPUTS, AND NEW SHORTWAVE ANGULAR DISTRIBUTION MODELS - Dr Stephen Cox
3:15-3:30	375	GEOSTATIONARY ENVIRONMENT MONITORING SPECTROMETER (GEMS) : EXPECTED PERFORMANCE AND ERROR ANALYSIS - Prof. Jhoon Kim	306	THREE DIMENSIONAL RADIATIVE AND CONVECTIVE EQUILIBRIUM - Mr Fabian Jakub	226	VALIDATING THE NEW RESULTS FROM THE NEXT GENERATION OF THE NASA GEWEX SRB AGAINST THE BSRN, GEB, WRDC AS WELL AS THE PMEL DATA - Dr Taiping Zhang
3:30 PM - 4:00 PM	Afternoon Coffee Break					
Concurrent Session 13						
4:00 PM - 5:30 PM			13B. Weather, Climate and Environment Applications Session Chair: TBD Session Convenors: Allen Huang, Zhang Hua Room: Lecture Theatre OGG8 4		13C. Radiation Budget and Forcing Diagnosing and validating surface energy balance components (4:00-4:30) Temporal changes in surface solar radiation (4:30:5:30) Session Chair: Martin Wild Session Convenors: Martin Wild, Peter Pilewskie, Arturo Sanchez-Lorenzo, Stefan Kinne Room: Lecture Theatre OGG8 3	
4:15-4:30			316	TWO TYPES OF HEAVY RAINFALL OVER EAST ASIA INFERRED FROM TRMM MEASUREMENTS AND THEIR FORMATION MECHANISM - Dr. Hwan-Jin Song		
4:00-4:15			120	THE IMPACT OF THERMAL RADIATION ON CLOUD DEVELOPMENT - Mrs Carolin Klingler	309	GLOBAL RADIATION RECONSTRUCTION BASED ON TREE-RING Δ13C IN SOUTHERN EUROPE DURING THE PAST SIX CENTURIES - Dr Arturo Sanchez-Lorenzo
4:30-4:45			69	THE RELATIONSHIP BETWEEN GLOBAL WARMING HIATUS AND REGIONAL ENHANCED WARMING - Prof. , Dr. Yuhong Yi	23	AIR POLLUTION EFFECTS ON DIMMING AND BRIGHTENING IN CHINA - Dr. Yawen Wang
4:45-5:00			228	ATTRIBUTION OF OZONE AND METHANE RADIATIVE FORCING TO SPATIALLY RESOLVED PRECURSOR EMISSIONS - Dr. Kevin Bowman	286	IS GLOBAL DIMMING AND BRIGHTENING IN JAPAN LIMITED TO URBAN AREAS? - Dr Katsumasa Tanaka
5:00-5:15			268	PARAMETERIZATION FOR EFFECT OF 3-D TOPOGRAPHY ON SURFACE SOLAR RADIATION AND ITS IMPACT ON HYDROLOGY IN SOUTH ASIA - Dr Wei-Liang Lee	132	LONG-TERM CHANGES IN CLOUD COVER AND SHORT WAVE RADIATION OVER THE OCEAN - Mrs Marina Aleksandrova
5:15-5:30			125	COMPARISON BETWEEN CALCULATIONS OF SHORTWAVE RADIATION WITH DIFFERENT AEROSOL DATASETS AND MEASURED DATA AT THE MSU MO (RUSSIA) - Mr Aleksei Poliukhov	87	CHANGES IN SURFACE SOLAR RADIATION OVER EUROPE IN OBSERVATIONS AND CMIP5/CORDEX SIMULATIONS - Dr Blanka Bartok
5:30 PM – 6:00 PM	Closing of the Symposium					
Friday, April 22, 2016						
9:00 AM - 3:30 PM	Conference Excursion (West Coast Bus Tour)					