

**10 years** of exploitation from  
Space for weather, climate  
and atmospheric sciences

---

# IASI 2016

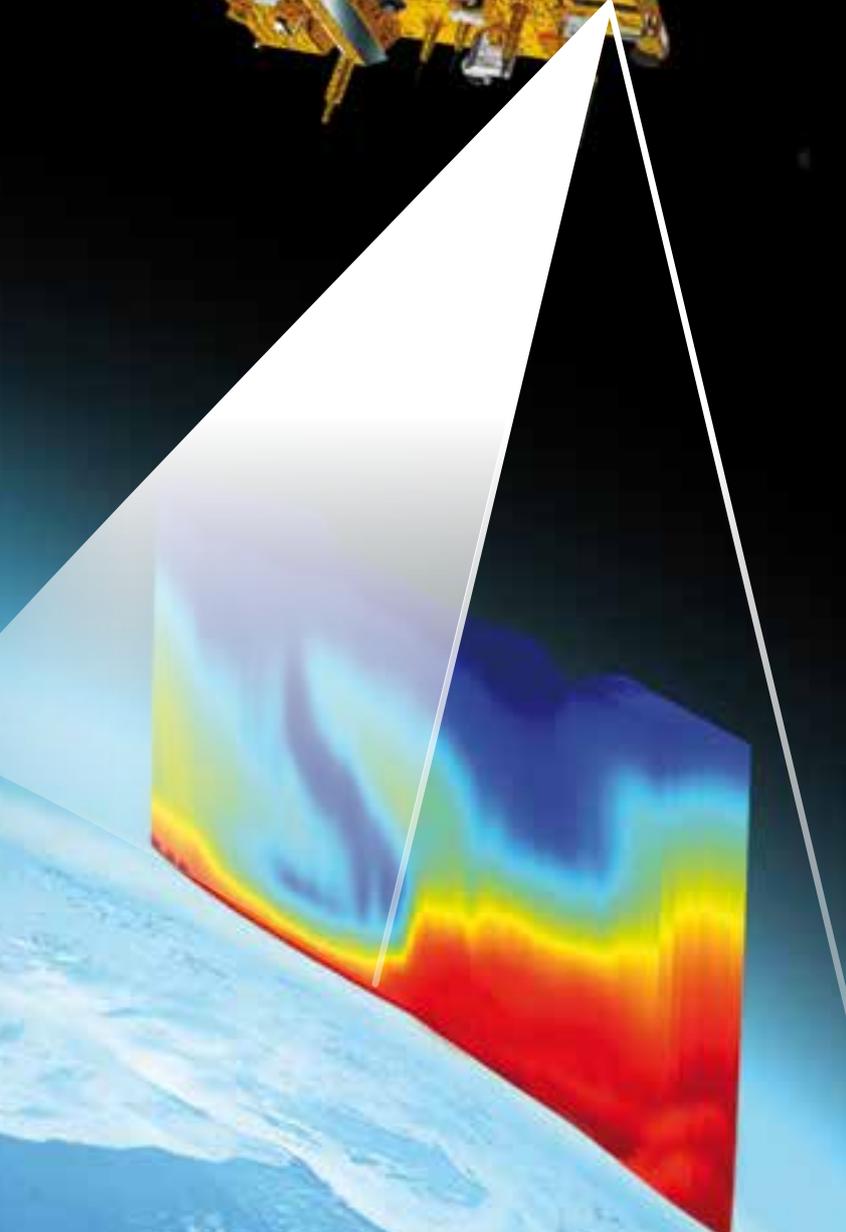
---

**11-15 April 2016**

Antibes Juan-les-Pins,  
France

---

[WWW.IASI2016.COM](http://WWW.IASI2016.COM)



**PROGRAMME**



# TABLE OF CONTENTS

<b>Programme</b>	<b>4</b>
<b>Welcome</b>	<b>8</b>
<b>Committees</b>	<b>9</b>
<b>Detailed programme - Monday 11 April</b>	<b>10</b>
<b>Detailed programme - Tuesday 12 April</b>	<b>12</b>
<b>Detailed programme - Wednesday 13 April</b>	<b>15</b>
<b>Detailed programme - Thursday 14 April</b>	<b>18</b>
<b>Detailed programme - Friday 15 April</b>	<b>20</b>
<b>Posters</b>	<b>23</b>
<b>Social Programme</b>	<b>38</b>
<b>Practical information</b>	<b>40</b>
<b>Notes</b>	<b>44</b>

# PROGRAMME

## MONDAY 11 APRIL

11:00	Welcome coffee & registration
13:30	Opening session
14:00	Programmes
14:30	IASI: summary of a success story and perspectives
14:50	Session 1 : IASI mission
16:25	Coffee break - Poster viewing
16:55	Session 2: Climate
18:30	Poster session
19:00	Welcome cocktail

## TUESDAY 12 APRIL

8:45	Session 3: Atmospheric Composition I
10:30	Coffee break - Poster viewing
11:00	Session 3: Atmospheric Composition I
12:35	Lunch break
13:55	Poster session
14:55	Session 4: Atmospheric Composition II
16:30	Coffee break - Poster viewing
16:55	Session 5: Surface
18:10	Adjourn

# PROGRAMME

## WEDNESDAY 13 APRIL

8:45	Session 6: NWP
10:30	Coffee break - Poster viewing
11:00	Session 6: NWP
11:55	Session 7: Aerosols and Clouds
12:55	Lunch break
14:15	Session 7: Aerosols and Clouds
15:30	Session 8: Spectro & RTM
16:40	Coffee break - Poster viewing
17:10	Session 8: Spectro & RTM
18:20	Adjourn

## THURSDAY 14 APRIL

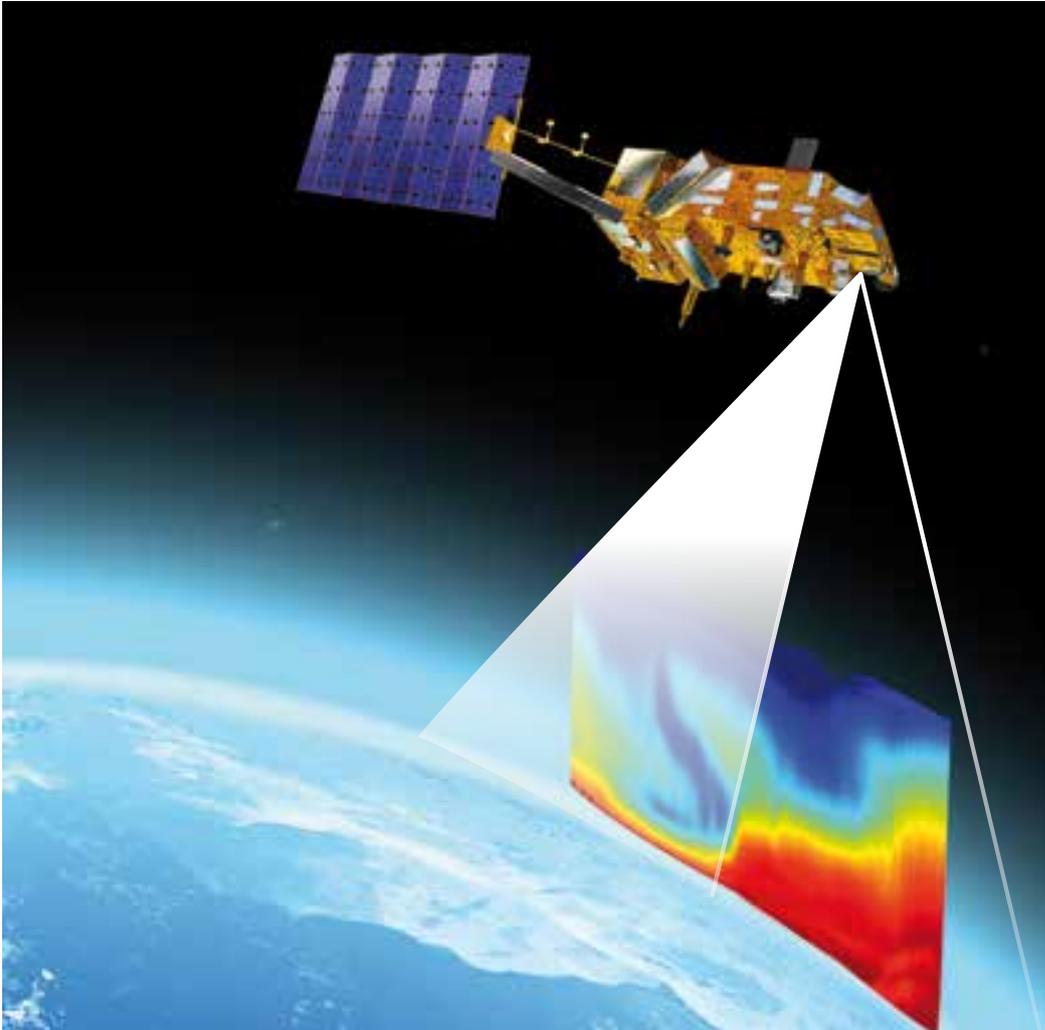
9:00	Session 9: Retrieval
10:00	Coffee break - Poster viewing
10:15	Session 9: Retrieval
12:00	Lunch break
13:20	Session 10: Validation
14:55	Poster session
17:00	Adjourn
19:00	Conference dinner

# PROGRAMME

FRIDAY 15 APRIL	
9:30	Session 11: Other Instruments
10:50	Coffee break - Poster viewing
11:20	Session 12: IASI-NG
12:30	Closing session
13:00	End



# WELCOME



The fourth IASI (Infrared Atmospheric Sounding Interferometer) Conference organized by the Centre National d'Etudes Spatiales (CNES) and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) takes place in Antibes Juan-les-Pins, France from 11 – 15 April 2016. This Conference aims at sharing and reviewing latest results from the operational and scientific use of nearly 10 years of hyperspectral observations with IASI instruments on the Metop satellites; in particular from two IASI instruments in orbit since the launch of Metop-B in 2012. IASI has brought increased contributions to operational weather forecasting and has become a well established data source for atmospheric composition and air quality. IASI plays an important role in climate monitoring. IASI data exploitation has further developed significantly in all areas in the last years.

Welcome to the IASI 2016 Conference!

IASI 2016 conference team

# COMMITTEES

## SCIENTIFIC COMMITTEE

---

Adrien Deschamps, CNES  
Alexander Uspensky, SRC Planeta  
Andrew Collard, NOAA  
Antonia Gambacorta, NOAA  
Carmine Serio, University of Basilicata  
Cathy Clerbaux, ULB/LATMOS  
Claude Camy-Peyret, UPMC  
Cyril Crevoisier, LMD  
Dave Tobin, University of Wisconsin Madison  
Dieter Klaes, EUMETSAT  
Dorothee Coppens, EUMETSAT  
Elsa Jacquette, CNES  
Eric Pequignot, CNES  
Fiona Smith, Met Office  
Jérôme Vidot, Météo-France  
Larrabee Strow, University of Maryland Baltimore  
Marco Matricardi, ECMWF  
Nicole Jacquinet, LMD  
Pierre-François Coheur, ULB  
Robert Knuteson, University of Wisconsin Madison  
Thomas August, EUMETSAT  
Tony McNally, ECMWF  
Vincent Guidard, Météo-France

## ORGANISING COMMITTEE

---

Laurence AMEN, CNES  
Thomas AUGUST, EUMETSAT  
Adrien DESCHAMPS, CNES  
Elsa JACQUETTE, CNES  
Gabriele KERRMANN, EUMETSAT  
Dieter KLAES, EUMETSAT  
Lorna PUTZE, EUMETSAT  
Olivier VANDERMARCQ, CNES

# DETAILED PROGRAMME

MONDAY 11 APRIL

11:00 Welcome coffee & registration

---

13:30 Opening session

Deschamps Adrien (CNES), August Thomas (EUMETSAT),  
Smith Fiona (UK Metoffice), Crevoisier Cyril (LMD/CNRS)

---

14:00 Programmes

The EPS/Metop and EPS-SG/Metop-SG Systems  
Cohen Marc (EUMETSAT)

---

14:30 IASI: summary of a success story and perspectives

Casoli Fabienne (CNES)

---

## Session 1 : IASI mission

Chairpersons : Smith Fiona (UK Metoffice), Crevoisier Cyril (LMD/CNRS)

---

14:50 IASI mission implementation and status

Vandermarcq Olivier (CNES)

---

15:10 Non linearity correction of IASI on board MetOp-A  
and MetOp-B

Jacquette Elsa (CNES)

---

15:30 Status of IASI instruments onboard Metop-A  
and Metop-B satellites

Buffet Laurence (CNES)

---

15:50 The operational IASI L2 v6: status, applications  
and evolutions

August Thomas (EUMETSAT)

---

16:10 Introduction Posters 3, 7, 8

---

16:25 Coffee break - Poster viewing

---

## Session 2: Climate

Chairpersons Scott Noelle (LMD/CNRS), Strow Larrabee (University of Maryland Baltimore County)

---

16:55 Evolution of SST and XCO<sub>2</sub> in the summer ice free Arctic Ocean: is IASI able to contribute to climate change studies?  
Camy-Peyret Claude (IPSL)

---

17:15 Use of climatology of IASI spectra to monitor global climate change . Analysis of the strong increasing of tropical SST since 2010  
Phulpin Thierry (TIRSEC)

---

17:35 Defining IASI as the Primary **Anchor** for the Global Space-based Inter-Calibration System (GSICS)  
Hewison Tim (EUMETSAT)

---

17:55 Climate Level Retrievals of Trends, Anomalies and PDFs from AIRS/IASI Radiance Time Derivatives  
Strow Larrabee (University of Maryland Baltimore County)

---

18:15 Introduction Posters 74, 78, 80, 81, 82, 110

---

18:30 Poster session

---

19:00 Welcome cocktail - The View

---

# DETAILED PROGRAMME

TUESDAY 12 APRIL

## Session 3: Atmospheric Composition I

Chairpersons: Camy-Peyret Claude (IPSL), Coheur Pierre (ULB)

---

8:45 **KEYNOTE: Atmospheric composition: IASI's top ten**  
Clerbaux Cathy (LATMOS/CNRS)

---

9:15 **Tropospheric Ozone Variability during the East Asian Summer Monsoon as Observed by Satellite (IASI), Aircraft (MOZAIC) and Ground Stations**  
Safieddine Sarah (MIT)

---

9:35 **Towards a 10 years reanalysis of tropospheric and lower-stratospheric ozone with assimilation of IASI and MLS observations**  
Peiro Hélène (CERFACS)

---

9:55 **Ozone and CO UT budget and variability during the Asian Summer Monsoon for 2008-2015: IASI and IAGOS observations and GEOS-Chem simulations**  
Barret Brice (LA/CNRS)

---

10:15 **Introduction Posters 26, 37, 49, 51, 52**

---

10:30 **Coffee break - Poster viewing**

---

11:00 **CO monitoring with IASI: global and local variability**  
George Maya (LATMOS/CNRS)

---

11:20 **Assessing the Impacts of Assimilating IASI and MOPITT CO Retrievals using CESM-CAM-chem and DART**  
Edwards David (NCAR)

---

11:40 Spatio-temporal variability of three anthropogenic greenhouse gases CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O in the mid-troposphere as seen from IASI onboard Metop-A and Metop-B  
Crevoisier Cyril (LMD/CNRS)

---

12:00 Global monitoring of atmospheric CO<sub>2</sub> and CH<sub>4</sub> through the assimilation of level 2 IASI data within the Copernicus Atmosphere Monitoring Service  
Massart Sebastien (ECMWF)

---

12:20 Introduction Posters 33, 44, 43, 53, 54

---

12:35 Lunch break

---

13:55 Poster session

---

## Session 4 : Atmospheric Composition II

Chairpersons: Cathy Clerbaux (LATMOS/CNRS),  
Edwards David (NCAR)

---

14:55 Spatial and temporal variability of stratospheric HNO<sub>3</sub> from IASI global measurements  
Ronsmans Gaétane (ULB)

---

15:15 Worldwide spatial and temporal ammonia (NH<sub>3</sub>) variability revealed by IASI  
Van Damme Martin (ULB)

---

# DETAILED PROGRAMME

15:35 Measuring volcanic SO<sub>2</sub> emission using IASI  
Carboni Elisa (University of Oxford)

---

15:55 Reconstruction of flux and altitude of volcanic SO<sub>2</sub> emissions from IASI satellite observations: implications for volcanological and atmospherical studies  
Boichu Marie (LOA/CNRS)

---

16:15 Introduction Posters 45, 47, 50 & 105, 114, 115 surface

---

16:30 Coffee break - Poster viewing

---

## Session 5: Surface

Chairpersons: **Jacquette Elsa (CNES)**, Jérôme Vidot, (Météo-France)

---

17:00 KEYNOTE: Treatment of surface emissivity in satellite data assimilation: state-of-the-art and open issues  
Karbou Fatima (Météo-France)

---

17:30 Assimilation of IASI surface-sensitive channels over land at convective scale AROME Model  
Boukachaba Niama (Météo-France)

---

17:50 Assessing The Impact of Aerosol on the Accuracy of IASI SST  
Trent Tim (Earth Observation Science)

---

18:10 Adjourn

---

19:30 Dinner - La Bodéga

---

## Session 6: NWP

Chairpersons : Andrew Collard (NOAA), Tony Mc Nally (ECMWF)

---

8:45     **KEYNOTE: Usage of IASI at global NWP centres**  
Guidard Vincent (Météo-France)

---

9:15     **Accounting for IASI Correlated Observation Error  
in NAVGEM**  
Campbell William (NRL)

---

9:35     **Approaches to accounting for spectrally-correlated  
observation errors at ECMWF**  
Eresmaa Reima (ECMWF)

---

9:55     **IASI at high spatial resolution in Météo-France  
regional models**  
Fourrie Nadia (Météo-France)

---

10:15    **Introduction Posters 125, 119, 123, 121, 127, 126**

---

10:30    **Coffee break - Poster viewing**

---

11:00    **The direct assimilation of principal components of IASI  
band 1 and band 2 full spectra in the ECMWF 4D-Var.**  
Matricardi Marco (ECMWF)

---

11:20    **Assimilation of Reconstructed Radiances in the AROME  
mesoscale convection permitted NWP model**  
Andrey Andres Javier (Météo-France)

---

11:40    **Introduction Posters 128, 129, 130, 131, 132**

---

# DETAILED PROGRAMME

## Session 7: Aerosols and Clouds

Chairpersons : Guidard Vincent (Météo-France), **Matricardi Marco (ECMWF)**

---

11:55 Physical properties of mesoscale high cloud systems in relation to their atmospheric environment deduced from sounders

Protopapadaki Sofia (LMD/CNRS)

---

12:15 Principal Component Analysis (PCA) for detection and classification of aerosols and clouds from hyperspectral infrared sounders

Rusalem Justin (LOA/CNRS)

---

12:35 Three-dimensional distribution of a major Saharan dust outbreak in June 2011 derived from IASI satellite observations

Cuesta Juan (LISA/CNRS)

---

12:55 **Lunch break**

---

14:15 Toward a decade of dust infrared aerosol properties observed by infrared hyperspectral sounders (AIRS, IASI/Metop-A, IASI/Metop-B) and first analysis of the dust diurnal cycle

Capelle Virginie (LMD/CNRS)

---

14:35 Mineral Aerosol Profiling from Infrared Radiances: Recent developments, validation, applications

Vandenbusche Sophie (Belgian Institute for Space Aeronomy)

---

14:55 Measuring volcanic ash and windblown sand with IASI

Lieven Clarisse (ULB)

---

15:15 Introduction Posters 12, 14, 17, 18, 19, 20, 21

---

## Session 8: Spectro & RTM

Chairpersons: Jacquinet Nicole (LMD/CNRS), Vidot Jérôme (Météo-France)

---

15:30 Introduction Posters Spectro & RTM 83, 87, 88, 89, 90, 91

---

15:45 Poster session

---

16:40 Coffee break - Poster viewing

---

17:10 KEYNOTE: Importance of spectroscopy and radiative transfer for the use of IASI data  
Matricardi Marco (ECMWF)

---

17:40 Radiative Transfer in the Middle and Upper Atmosphere in the Context of Infrared Satellite Observations of the Lower Atmosphere  
Feofilov Artem (LMD/CNRS)

---

18:00 MIPAS database: New HNO<sub>3</sub> line parameters at 7.6  $\mu\text{m}$  derived from MIPAS satellite measurements  
Perrin Agnes (LISA/CNRS)

---

18:20 Adjourn

---

19:30 Dinner - Garden Beach Bonsai Restaurant

---

# DETAILED PROGRAMME

THURSDAY 14 APRIL

## Session 9: Retrieval

Chairpersons: **Pagano Tom (NASA)**, August Thomas (EUMETSAT)

9:00 Using the full IASI spectrum for the physical retrieval of Temperature, Water Vapour, Ozone and minor and trace gases: CO, CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SO<sub>2</sub>, HNO<sub>3</sub> and NH<sub>3</sub>  
Masiello Guido (University of Basilicata)

9:20 Extraction of 3D wind profiles from IASI Level2 products  
Borde Régis (EUMETSAT)

9:40 Introduction Posters 68, 69, 70, 71, 72, 73

10:00 **Coffee break - Poster viewing**

10:25 PWLR-3 - exploiting horizontal correlation in PieceWise Linear Regression  
Hultberg Tim (EUMETSAT)

10:45 ~~The NOAA Hyper Spectral Infrared and Microwave Retrieval System: algorithm description and applications.  
Cambacorta Antonia (NOAA) *Withdrawn*~~

11:05 Measuring air pollution from thermal infrared satellite observations: when, where and how?  
Bauduin Sophie (ULB)

11:25 New insights into the hydrological cycle from IASI  $\delta D$  distributions across the globe  
Lacour Jean-Lionel (LATMOS/CNRS)

11:45 Introduction Posters 56, 60, 64, 66, 67

12:00 Lunch break

---

## Session 10: Validation

Chairpersons: Serio Carmine (University of Basilicata), Coppens Dorothée (Eumetsat)

---

13:20 Introduction Posters 98, 103, 106, 107, 108, 109, 111

13:40 Improving the knowledge of the atmospheric state through the validation of IASI radiances  
Armante Raymond (LMD/CNRS)

---

14:00 Validation of IASI NH<sub>3</sub> columns at the single pixel scale from airborne- and ground-based measurements  
Zondlo Mark (Princeton University)

---

14:20 Evaluating the atmospheric columns of CH<sub>4</sub> retrieved from space using vertical profiles from aircraft and stratospheric balloons campaigns  
Membrive Olivier (LMD/CNRS)

---

14:40 Intro Posters Others/Future Instruments 137, 138, 139, 141, 143, 144, 147, 148, 149

---

14:55 Poster session

---

17:00 Adjourn

---

19:00 Conference dinner - Marineland

---

# DETAILED PROGRAMME

FRIDAY 15 APRIL

## Session 11: Other Instruments

Chairpersons : Pequignot Eric (CNES), Aumann George (NASA/JPL)

---

9:30 The Copernicus Sentinel-5 Mission: Daily Global Data for Air Quality, Climate and Stratospheric Ozone Applications  
Meijer Yasjka (RHEA)

---

9:50 Status of the AIRS on Aqua and the CubeSat Infrared Atmospheric Sounder (CIRAS)  
Pagano Thomas (NASA/JPL)

---

10:10 MTG-IRS instrument and level 1 processing overview  
Coppens Dorothee (EUMETSAT)

---

10:30 Global Ammonia Concentrations Seen by the 13-years AIRS Measurements  
Warner Juying (University of Maryland)

---

10:00 Coffee break - Poster viewing

## Session 12: IASI-NG

Chairpersons: Deschamps Adrien (CNES), Dieter Klaes (EUMETSAT)

---

11:20 Overview of IASI-NG status after the Preliminary Design Review  
Bernard Frédéric (CNES)

---

11:40 IASI-NG processing overview  
Pequignot Eric (CNES)

---

12:00 Scientific perspectives and challenges for IASI-NG  
Smith Fiona (UK Metoffice), Crevoisier Cyril (LMD/CNRS)

---

12:30 Closing session

---

13:00 End

---



# POSTERS

## SESSION 1: IASI MISSION

---

**S1-03**

**Performance status of IASI on-board Metop-A and Metop-B**

Maraldi Claire, CNES

---

**S1-07**

**IRMA: IASI Radiance Monitoring Assistant - Operational  
Monitoring of IASI radiances at EUMETSAT**

Coppens Dorothee, EUMETSAT

---

**S1-08**

**IASI performance assessment after permanent cube corner  
compensation device stop**

Jacquette Elsa, CNES

---

## SESSION 2: CLIMATE

---

**S2-74**

**Ozone instantaneous longwave radiative effect from IASI  
and TES observations**

Doniki Stamatia, Université Libre de Bruxelles

---

**S2-78**

**The BIRA-IASB IASI CH<sub>4</sub> product**

De Wachter Evelyn, Belgian Institute for Space Aeronomy

---

**S2-80**

**An Infrared Radiance Climate Record Combining AIRS, IASI,  
and CrIS**

Hepplewhite Christopher, University Of Maryland, Baltimore County

---

# POSTERS

**S2-81**

**Towards homogeneous reference datasets for long-term climatic variable time series from METOPA and METOPB validated observations**

Scott Noelle A., Laboratoire de Météorologie Dynamique

---

**S2-82**

**Long time series of Essential Climate Variables from IASI – Almost a decade!**

Crevoisier Cyril, CNRS/LMD

---

**S2-110**

**Defining IASI as the Infrared Anchor Reference for the Global Space-based Inter-Calibration System (GSICS)**

Tim HEWISON, EUMETSAT

---

## SESSION 3: ATMOSPHERIC COMPOSITION I

---

**S3-26**

**O<sub>3</sub> variability in the troposphere and the stratosphere from IASI observations in 2008-2015**

Wespes Catherine, Université Libre de Bruxelles

---

**S3-37**

**Ozone pollution outbreaks analysed by synergism of novel IASI+GOME2 multispectral satellite observations, chemistry-transport models and in situ measurements**

Cuesta Juan, LISA- CNRS/UPEC/UPD

---

**S3-49**

**Detection of tropospheric ozone from IASI during exceptional events**

Boynard Anne, LATMOS/CNRS/IPSL

*Withdrawn*

**S3-51**

**Variability and short-term trends of lower and upper tropospheric ozone over the North China Plain from IASI observations**

Dufour Gaëlle, LISA/CNRS

**S3-52**

**Seasonal and interannual variabilities of tropospheric Ozone and CO over the Indian Ocean with IASI-SOFRID 2008-2013 data**

Le Flochmoen Eric, Laboratoire d'Aérodologie - CNRS - Université de Toulouse

**S3-33**

**Unaccounted variability in NH<sub>3</sub> agricultural sources detected by IASI contributing to European spring haze episode**

Cheiney Audrey, LISA/CNRS

**S3-44**

**Ammonia emissions in biomass burning regions: Estimation from satellite-derived measurements and comparison with bottom-up inventories**

Whitburn Simon, Université Libre de Bruxelles

**S3-43**

**Atmospheric Trace Gas Anomaly Detection using IASI**

Ventress Lucy, University of Oxford

# POSTERS

**S3-53**

**Using IASI to characterise CO and other volatile organic compound emissions**

Moore David, NCEO - University of Leicester

---

**S3-54**

**Main results of Carbon Dioxide comparison between IASI, TANSO-FTS and HIPPO products**

Tirelli Cecilia, Institute for Applied Physics "Nello Carrara"

---

## SESSION 4: ATMOSPHERIC COMPOSITION II

---

**S4-45**

**Impact of boreal wildfires on air quality: from regional to hemispheric scales**

Turquety Solene, LMD

*Withdrawn*

---

**S4-47**

**High spectral resolution infrared sounders (IASI, TANSO-fts, IASI-NG, IRS) capabilities to measure aerosols and trace gases emitted by volcanic eruptions**

Herbin Hervé, Laboratoire d'Optique Atmosphérique

---

**S4-50**

**Monitoring of atmospheric composition with IASI/MetOp Sounders : ULB/LATMOS data in open access via Ether website**

Hadji-Lazaro Juliette, LATMOS

---

## SESSION 5: SURFACE

---

### S5-105

#### **Validation of IASI Surface Temperature Under Dusty Conditions: Application to the West Africa Region**

Mechri Rihab, Laboratoire de Météorologie Dynamique

---

### S5-114

#### **Surface temperature retrievals from IASI and SEVIRI channels in the convective scale numerical prediction AROME-France model**

Boukachaba Niama, CNRM-GAME, Météo-France and CNRS

---

### S5-115

#### **Sea Surface Temperature from IASI: OSI SAF L2P and recent results**

O'Carroll Anne, EUMETSAT

---

## SESSION 6: NWP

---

### S6-125

#### **A cross-validation method for observational data and its application to IASI cloud screening**

Stiller Olaf, Deutscher Wetterdienst

---

### S6-119

#### **Assimilation of reconstructed radiances in the Met Office Global Model**

Smith Fiona, Met Office

---

# POSTERS

**S6-123**

**Towards the assimilation of all-sky infrared radiances of selected humidity sensitive IASI channels at NCEP/EMC**

BI LI, NWS/NCEP/EMC/IMSG

---

**S6-121**

**Increasing the utility of real-time IASI moisture and temperature soundings In very-short-range forecasting**

Petersen Ralph, Madison, Wisconsin, USA

---

**S6-127**

**Improving thermodynamic retrievals using realistic ozone and ozone-sensitive channels**

Coopmann Olivier, Météo-France and CNRS

---

**S6-126**

**Looking backwards: 20 years of hard work on IASI for NWP at Météo-France!**

Fourrie Nadia, CNRM-GAME, Météo-France and CNRS

*Withdrawn*

---

**S6-128**

**Use of IASI data for early detection of convective systems**

Vocino Antonio, COMET - Italian Air Force Meteorological Centre

*Withdrawn*

---

**S6-129**

**The assimilation of IASI at KIAPS**

Chun Hyoung-Wook, KIAPS

---

**S6-130**

**A physically based observation error covariance matrix for IASI**

Chun Hyoung-Wook, KIAPS

---

**S6-131**

**Recent Advances in Cloud-Clearing using CrIS Partially Cloudy Data**

Liu Haixia, NOAA/NCEP/EMC

---

**S6-132**

**Exploitation of Hyperspectral Infrared Radiance Data at NCEP**

Collard Andrew, IMSG @ NOAA/NCEP/EMC

---

**SESSION 7: AEROSOLS AND CLOUDS**

---

**S7-12**

**Frequency and Vertical distribution of Tropical high clouds: VIS and IR geostationary satellite observations coupled with lidar and IR sounders observations from polar orbiting satellites**

Sèze Geneviève, LMD/IPSL/CNRS/Université Paris VI

---

**S7-14**

**Cirrus Clouds Retrieved from IASI and AIRS Observations: Diurnal Variation and Microphysical Properties**

Feofilov Artem, CNRS/IPSL Laboratoire de Météorologie Dynamique

---

**S7-17**

**Aerosol detection with IASI, AIRS and CrIS measurements in the weather forecast**

Letertre-Danczak Julie, ECMWF

---

**S7-18**

**Retrieving Volcanic Ash Properties from the Infrared Atmospheric Sounding Interferometer**

Ventress Lucy, University of Oxford

---

# POSTERS

**S7-19**

**IASI Dust algorithm inter-comparison within ESA's Climate Change Initiative**

Klueser Lars, German Aerospace Center (DLR)

---

**S7-20**

**Greenhouse gases information content analysis from high spectral measurements in the thermal infrared (IASI like) in the presence of ice cloud**

C.-Labonnote Laurent, LOA - University of Lille

---

**S7-21**

**Evaluation of the cloudy parameters with the CO2-Slicing algorithm for IASI in global and mesoscale models**

Farouk Imane, CNRM/GAME

---

## SESSION 8: SPECTRO & RTM

---

**S8-83**

**All-sky radiative transfer calculations for IASI-NG: the  $\sigma$ -IASI-as code and its applications**

Liuzzi Giuliano, School of Engineering, University of Basilicata

---

**S8-87**

**RTTOV for hyperspectral IR sounders: Status and future developments**

Vidot Jerome, CMS / Météo-France

---

**S8-88**

**Learning from IASI with RTTOV-GUI**

Roquet Pascale, Météo-France

---

**S8-89**

**4A/OP: A fast & accurate operational forward radiative transfer model: application to IASI and IASI-NG solar bands**

Bernard Emilien, NOVELTIS

---

**S8-90**

**Comparisons of IASI radiance simulations with LBLRTM, RTTOV, the HT-FRTC and its monochromatic version**

Havemann Stephan, Met Office

---

**S8-91**

**The GEISA spectroscopic database 2015 Edition in the frame of IASI remote sensing applications and IASI-NG phase B studies**

Jacquinet Nicole, Laboratoire de Météorologie Dynamique Ecole Polytechnique

---

## **SESSION 9: RETRIEVAL**

---

**S9-68**

**4ARTIC : 4A Radiative Transfer Inversion Code**

Jaumouillé Elodie, CNES

---

**S9-69**

**A flexible and robust IASI-NH<sub>3</sub> retrieval algorithm**

Whitburn Simon, Université Libre de Bruxelles

---

**S9-70**

**Greenhouse gases information content analysis from high spectral measurements in the thermal infrared (IASI like) in the presence of ice cloud**

C.-Labonnote Laurent, LOA - University of Lille

---

# POSTERS

**S9-71**

**Accounting for IASI Inter-Channel Observation Errors in the GSI**

Bathmann Kristen, I.M. Systems Group at NCEP/EMC

---

**S9-72**

**Sensitivity study of the capacity of a three-band multispectral approach UV+VIS+TIR to observe lowermost tropospheric ozone using IASI and GOME2 spaceborne**

Chailleux Yohann, LISA (CNRS UMR7583)

---

**S9-73**

**IASI, CrIS, IASI-NG and MTG IRS PC compression - how to handle multiple detectors with different characteristics**

Hultberg Tim, EUMETSAT

---

**S9-56**

**Middle-Upper Tropospheric Methane and Nitrous Oxide Retrievals from Metop/IASI within the project MUSICA**

Garcia Omaira, Agencia Estatal de Meteorología

---

**S9-60**

**Single Field of View IASI/AMSU Retrieval Under All Sky Condition**

Wu Wan, Science Systems And Applications, Inc

---

**S9-64**

**What is the error?**

Hultberg Tim, EUMETSAT

---

**S9-66**

**Satellite-derived 3D Winds: Global Model Impact Studies for Current and Future Observing Systems**

David Santek, Univ. of Wisconsin-Madison

---

**S9-67**

**Real-Time Access to Advanced Sounder Data over North America from the NOAA Direct Broadcast Network**

Gumley Liam, Space Science and Engineering Center, University of Wisconsin-Madison

---

**S9-59**

**Convective Available Potential Energy (CAPE) derived from Hyperspectral Infrared Satellite Sounders**

Gartzke Jessica (SSEC)

---

**SESSION 10: VALIDATION**

---

**S10-98**

**Evaluation of IASI total ozone accuracy by comparisons with SAOZ and all other satellites measurements in the tropics and at mid-latitudes**

Pommereau Jean-Pierre

---

**S10-103**

**Atmospheric profile retrievals from IASI in the framework of the Concordiasi campaign**

Guidard Vincent, Météo-France

---

# POSTERS

**S10-104**

**Validation IASI Temperature and Humidity Sounding Retrievals over Tropical Atlantic Ocean during PIRATA cruises Using Radiosonde Observations**

Campelo Ana Karine, Labomar-Marine Science Institute

*Withdrawn*

**S10-106**

**Validation and monitoring of the IASI L2 products at EUMETSAT**

Crapeau Marc, EUMETSAT

**S10-107**

**A Quasi Near-Real Time Operational Validation of IASI Level 2 Trace Gas Products**

Eliezer Sepulveda, Agencia Estatal de Meteorología

**S10-108**

**Global validation of IASI CO profiles with recent IAGOS data**

Bennouna Yasmine, Laboratoire d'Aérodynamique, Université Paul Sabatier et CNRS UMR 5560

**S10-109**

**VALIASI: IASI ozone total column amounts and vertical profiles validated at subtropical, mid-latitude and polar-latitude**

Eliezer Sepulveda, Agencia Estatal de Meteorología

**S10-111**

**Defining Water Vapour Profiles from Nadir Sounders for the GEWEX Water Vapor Assessment**

Trent Tim, Earth Observation Science

## SESSION 11: OTHER INSTRUMENTS

---

**S11-137**

**Potential of the multispectral synergism for observing ozone pollution combining measurements of IASI-NG and UVNS onboard EPS-SG**

Costantino Lorenzo, LISA, CNRS

---

**S11-138**

**IASI-NG Program Status**

Bermudo François, CNES

---

**S11-139**

**Validation of IASI-NG Level 1 processing: strategy and first results**

Deschamps Adrien, CNES

---

**S11-141**

**Development of an infrared hyperspectral temperature and water vapor sounder at 5 micro-meters**

Aumann Hartmut, California Institute of Technology, Jet Propulsion Laboratory

---

**S11-143**

**Scientific Benefits of Spatial Resolution for Next Generation Infrared Hyperspectral Sounder Instruments**

Likun Wang, ESSIC/University of Maryland

---

**S11-144**

**Potential of Laser Heterodyne Radiometry for Numerical Weather Prediction**

Smith Fiona, Met Office

---

# POSTERS

**S11-147**

**Calibration Accuracy Improvements for CrIS on JPSS**

Chen Yong, Earth System Science Interdisciplinary Center,  
University of Maryland and NOAA/STAR

---

**S11-148**

**Calibration/validation studies for advanced infrared sounder  
IRFS-2 on "Meteor-M"**

Uspensky Alexander, Russian State Research Centre PLANETA

---



# SOCIAL EVENTS

MONDAY 11 APRIL



## **The View**

7, passage Georges Gallice  
06160 Antibes-Juan les Pins

Starting from 19:00

Proper attire is required

Panoramic terrasse of Congress Center

Directly on the terrasse roof of the Congress Center,  
The View restaurant offers a unique view over Juan Les Pins' bay.

TUESDAY 12 APRIL



## **La Bodéga**

16 Avenue Dr Dautheville  
06160 Antibes Juan les Pins

Starting from 19:30

Distance from Congress Center : 300m

At walking distance from Congress Center, this restaurant offers  
a friendly atmosphere.

WEDNESDAY 13 APRIL



**Garden Beach  
Bonsai restaurant**

17, Boulevard E. Baudoin  
06160 Antibes

Starting from 19:30

Distance from Congress Center : 150m

With its magnificent view over the Mediterranean sea,  
the Bonsai restaurant offers a peaceful and settled atmosphere  
for your evening.

THURSDAY 14 APRIL



©Marineland

**Marineland**

306 Avenue Mozart  
06600 Antibes

Bus departure 19:00

Buses will leave from de congress center at 19:00 (Chemin des  
Sables, in front of the AC Hotel Ambassadeur).

The return buses will leave at 23:30 and bring you back to the  
congress center.

The largest European marine park will be privatized for you to  
spend an unforgettable evening...

# PRACTICAL INFORMATION



Antibes is situated in the heart of one of the Côte d'Azur's most beautiful touristic sites, superbly located at the foot of the Southern Alps on the Mediterranean coast between Nice and Cannes.

## WELCOME DESK

Monday 11 April .....	11h00 - 19h00
Tuesday 12 April .....	08h00 - 18h00
Wednesday 13 April .....	08h00 - 18h00
Thursday 14 April .....	08h30 - 17h00
Friday 15 April .....	09h00 - 13h30

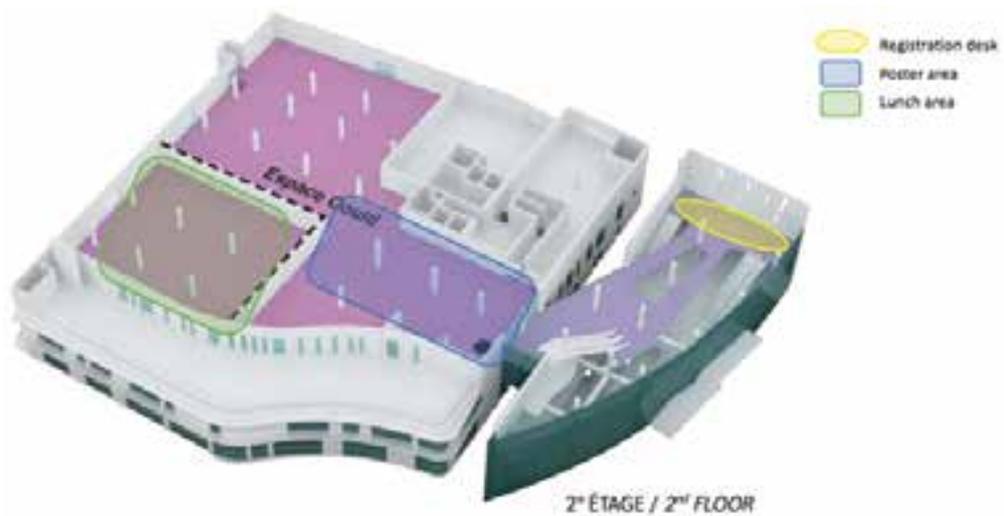
**Emilie Turbiez** (Insight Outside)  
contact@iasi2016.com | +33 (0)7 68 30 83 04

## CONFERENCE CENTER



The conference center is located at 150m from the sea and at the heart of a green path between the Gould Pine Grove and the Sidney Bechet square offers very attractive surroundings.

Address: 60, chemin des Sables - 06160 Juan-les-Pins



# PRACTICAL INFORMATION

## ACCESS

### By plane

International Airport Nice Côte d'Azur - 20 km from Antibes Juan-les-Pins.

To get to Antibes, you can take the bus from the bus centre at Terminal 1 or in front of Terminal 2.

From Nice Airport to Antibes Juan-les-Pins

Line 250 - Golfe Juan

Nice Airpoty > Antibes > Golfe-Juan > Vallauris

Departure are from Terminal 1 (platform 6) & Terminal 2 (platform 1)

Return transfer from Nice Airport is around 16,50 € per person.

Travel time is around 40mn from Terminal 1 to Antibes.

It is possible to take the bus n° 23 from the bus centre at Terminal 1 to the station Nice Saint Augustin, then regional train (TER) calling at both Antibes and Juan-les-Pins station.

### By train

Antibes train station for local TER and main TGV trains.

Juan-les-Pins and Biot train stations for local TER trains only.

Thello company trains (link Marseille-Italy): stop at Antibes train station.

### Taxis

Allo taxi ..... +33 (0)4 93 67 67 67

Azuri Cab ..... +33 (0)6 65 49 90 67

## WIFI

Free wifi will be available during the conference.

ID: IASI2016

Password: PDC042016

## INFORMATION REGARDING PRESENTATIONS

### Oral presentations

It will be possible to hand in your presentation on site with the technicians in the regie (upper floor auditorium) during coffee breaks or at lunch time.

Please hand in your presentation at least half a day before your talk is scheduled.

Format required: Pdf, Powerpoint or Keynote (preferably in 16/9)

### Poster presentations

Please note that the poster sessions will take place during the coffee and lunch breaks. Your poster will have to be printed in portrait format (A0), 841x1189 mm and will be displayed during the whole conference. The poster area will be located on level +2. There, you will find a poster panel with your poster number and the necessary affixing material.









**10 years** of exploitation from  
Space for weather, climate  
and atmospheric sciences

---

# IASI 2016

---

**11-15 April 2016**

Antibes Juan-les-Pins,  
France

---

[WWW.IASI2016.COM](http://WWW.IASI2016.COM)

