

# Atmospheric Science Conference

8-12 May 2006 - ESA ESRIN Frascati



## Preliminary Programme

Keynote talks are in bold

Day 1, Monday 8 May 2006		
09.00-10.00	<i>Registration/Poster Mounting/Coffee</i>	
10.00-10.20	<i>Welcome/Workshop Objectives and Organization</i>	
Missions Overview/Instrument and Product Status		Chair: Y.-L. Desnos
10:20-10:40	The Envisat Mission	Henri Laur (Envisat Mission Manager-ESA)
10:40-11:00	The ENVISAT Atmospheric Chemistry Mission: status and performance	Thorsten Fehr (ESA)
11:00-11:20	The ERS Mission/GOME Product Quality Status	Wolfgang Lengert (ERS Mission Manager-ESA)
11:20-11:40	ESA Third Party Missions	Bianca Hoersch (Third Party Mission Manager, ESA)
11:40-12:00	The Atmospheric Chemistry Experiment (ACE): Mission Overview	Peter Bernath (University of Waterloo )
12:00-12:20	Recent Validation Results for the Atmospheric Chemistry Experiment (ACE)	Kaley A. Walker (University of Waterloo)
12:20-12:40	The AURA Mission	Ernest Hilsenrath (University of Maryland)
12:40-13:00	Overview of First Year's Results of the Ozone Monitoring Instrument	Pieter Levelt (KNMI)
13:00-13:20	More Than One Year of Data from the Ozone Monitoring Instrument - Validation	Mark Kroon (KNMI)
13:20-13:40	SCIAMACHY Four Years in Orbit: Instrument Operations and In-flight Performance Status	Manfred Gottwald (DLR)
13.40-14.40	<i>Lunch Break</i>	
Data Quality		Chair: E. Kyrola and P. Bernath
14:40-15:00	SAUNA - Sodankylä Total Ozone Intercomparison and Validation Campaign	B.R. Bojkov (NASA Goddard Space Flight Center)
15:00-15:20	A Validation of Solar Backscatter Radiances using Antarctic Ice	Glen Jaross (Science Systems and Applications, Inc.)
15:20-15:40	Evaluation of ozonesondes, HALOE, SAGE II, SAGE III, ODIN-OSIRIS and SMR, and ENVISAT-GOMOS, -SCIAMACHY and MIPAS Ozone profiles in the tropics from SAOZ long duration balloon measurements	Jean-Pierre Pommereau (CNRS)
15:40-16:00	Evaluation of GOMOS limb scattering measurements	Ghassan Taha (Science Systems and Applications, Inc.)
16.00-16.30	<i>Coffee Break</i>	
Data Quality		Chair: E. Kyrola and P. Bernath
16:30-16:50	10-Years Operational GOME/ERS-2 Total Column Products: The GDP 4.0 Validation	Dimitris Balis (Aristotle University of Thessaloniki)
16:50-17:10	Long-term validation of GOMOS, MIPAS and Sciamachy ozone and temperature profiles by the Envisat Quality Assessment with Lidar (EQUAL) project	Yasjka Meijer (RIVM)
17:10-17:30	Co-ordinated validation activity and quality assessment of MIPAS-ENVISAT Ozone data	Ugo Cortesi (IFAC-CNR)
17:30-17:50	EnviSat / SCIAMACHY validation with the LPMA / DOAS balloon gondola: Comparison of a) O <sub>3</sub> , NO <sub>2</sub> and BrO profiles, b) the solar irradiance spectrum and c) limb radiances.	Marcel Dorf (University of Heidelberg)
17:50-18:10	Cross-validation of recent satellite and ground-based	Klemens Hocke (University

	measurements of ozone and water vapor in the middle atmosphere	Bern)
18.10-18.30	<i>Discussion on existing Instruments and Data Processing/Quality</i>	
18.30-20.00	<i>Icebreaker at ESRIN</i>	
<b>Day 2, Tuesday 9 May 2006</b>		
<b>Retrieval Algorithms</b>		<b>Chair: R. Munro and G. Kirchengast</b>
<b>08:30-09:00</b>	<b>10-Years Operational GOME/ERS-2 Total Column Products: The GDP 4.0 Algorithm</b>	<b>Diego Loyola (DLR)</b>
09:00-09:20	High-resolution density and temperature profiling in the stratosphere using bi-chromatic scintillation measurements by GOMOS	Francis Dalaudier (Service d'Aéronomie)
09:20-09:40	MIPAS new measurement scenario: enhanced vertical resolution and regularization	Simone Ceccherini (IFAC - CNR)
09:40-10:00	Direct-fitting: a new approach for trace gases retrieval in the UV-visible spectral range	Michel Van Roozendael (BIRA-IASB)
10:00-10:20	Retrieval of BrO vertical distributions from SCIAMACHY limb measurements: Data quality assessment and algorithm improvements	Alexei Rozanov (University of Bremen)
10.30-11.00	<i>Coffee Break</i>	
<b>Trace Gases in the Stratosphere</b>		<b>Chair: R. Munro and G. Kirchengast</b>
<b>11:00-11:30</b>	<b>SCIAMACHY, an update and highlights of the scientific results 2002-2006</b>	<b>John Burrows (University of Bremen)</b>
11:30-11:50	Retrieval of Stratospheric Trace Gases from SCIAMACHY Limb Measurements	Jānis Puķīte (University of Heidelberg)
11:50-12:10	Odin/SMR Limb Observations of Stratospheric Trace Gases during 2001-2005	Joachim Urban (Chalmers University of Technology)
12:10-12:30	New NNORSY-GOME-1 Global Ozone Profile Data Set	Anton Kaifel (Center for Solar Energy & Hydrogen Research (ZSW))
<b>12:30-13:00</b>	<b>GOMOS/ENVISAT overview</b>	<b>Erkki Kyrölä (Finnish Meteorological Institute)</b>
13:00-13:20	Dynamical origin of strong NO <sub>2</sub> enhancement in the polar stratosphere and mesosphere observed by GOMOS ion ENVISAT	Alain Hauchecorne (CNRS)
13:20-13:40	Non-operational products from the GOMOS instrument : mesospheric sodium, OCIO and polar stratospheric clouds.	Didier Fussen (BIRA-IASB)
13.40-14.50	<i>Lunch Break</i>	
<b>Trace Gases in the Stratosphere</b>		<b>Chair: B. Carli and J.-M. Flaud</b>
<b>14:50-15:20</b>	<b>MIPAS: Scientific Results</b>	<b>Herbert Fischer (Universität Karlsruhe)</b>
15:20-15:40	MIPAS observations of CFC trends	Alastair Burgess (University of Oxford)
15:40-16:00	A Compendium of the Non-LTE Atmospheric Emissions Measured by MIPAS	Manuel Lopez-Puertas (Instituto de Astrofísica de Andalucía, CSIC)
16.00-16.30	<i>Coffee Break</i>	
<b>Trace Gases in the Stratosphere</b>		<b>Chair: B. Carli and J.-M. Flaud</b>
16:30-16:50	Infrared Remote Sensing of Organic Compounds in the Upper Troposphere	John Remedios (University of Leicester)
16:50-17:10	Retrieval of tropospheric Carbon Monoxide from MIPAS measurements	Claudio Belotti (IFAC CNR)
17:10-17:30	Spatial and temporal distributions of water vapour in the UTLS as observed with MIPAS/Envisat	Mathias Milz (Universität Karlsruhe/Forschungszentrum Karlsruhe)
17:30-17:50	Upper Tropospheric Measurements of Biomass Burning Emissions with the Atmospheric Chemistry Experiment (ACE) Fourier Transform Spectrometer	Curtis Rinsland (NASA Langley Research Center)

17:50-18:10	Envisat MIPAS measurements of CFC-11 and CFC-12: an add-on to ESA operational data	Lars Hoffmann (Forschungszentrum Juelich)
18.10-18.35	Discussion on Trace Gases in the Stratosphere	
<b>Day 3, Wednesday 10 May 2006</b>		
<b>Trace Gases in the Troposphere/Air Quality</b>		<b>Chair: J. Burrows and H. Fischer</b>
<b>08:30-09:00</b>	<b>Synergistic use of different atmospheric instruments: What about the spectral parameters?</b>	<b>Jean-Marie Flaud (LISA-CNRS-Uni.Paris 12 and Uni.Paris 7)</b>
09:00-09:20	Atmospheric processes in the upper troposphere and lowermost stratosphere as seen by MIPAS	Gabriele P. Stiller (Forschungszentrum / University Karlsruhe)
09:20-09:40	Ten Years of SO <sub>2</sub> measurements from GOME and SCIAMACHY	Andreas Richter (University of Bremen)
09:40-10:00	Trends and seasonal variability in tropospheric NO <sub>2</sub>	Ronald van der A (KNMI)
10:00-10:20	Measurements of Tropospheric BrO, HCHO, and Glyoxal from the Ozone Monitoring Instrument on EOS Aura	Thomas P. Kurosu (Harvard-Smithsonian Center for Astrophysics)
10.20-10.50	<i>Coffee Break</i>	
10:50-11:10	Satellite Chartography of Atmospheric Methane and carbon monoxide from SCIAMACHY onboard ENVISAT	Christian Frankenberg (IUP Heidelberg)
11:10-11:30	Quantitative analysis of SCIAMACHY CO variability and its implication for chemistry transport models	Annemieke Gloudemans (SRON Netherlands Institute for Space Research)
11:30-11:50	Measuring atmospheric CO <sub>2</sub> from space using Full Spectral Initiation (FSI) WFM-DOAS	Paul Monks (University of Leicester)
11:50-12:10	Remote sensing of Asian pollution from space: tracking the long range transport from China using ACE measurements.	Solène Turquety (Service d'Aéronomie, IPSL)
12:10-12:30	Estimation of NO <sub>2</sub> amounts emitted from the Portuguese wildfires in 2005: A synergistic use of observations by imaging and atmospheric instruments and chemistry-transport models	Julian Meyer-Arnek (DLR - German Aerospace Center)
12:30-12:50	Tropospheric Observations with the Ozone Monitoring Instrument (OMI)	Pepijn Veefkind (KNMI)
12:50-13:10	New Developments in the Retrieval of Tropospheric Ozone from GOME, SCIAMACHY and SEVIRI	Richard Siddans (Rutherford Appleton Laboratory)
13.10-13.45	Discussion on Trace Gases in the Troposphere/Air Quality	
13.45-14.45	<i>Lunch</i>	
<b>14.45-18:00</b>	<b>Poster Session (covering all themes)</b>	
<b>Posters: Instrument Performance/Data Quality/Intercomparison</b>		
Validation of ozone profiles retrieved from SCIAMACHY lunar occultation measurements		Leonard K. Amekudzi (University of Bremen)
Validation of OMI total ozone using ground-based Brewer observations		Dimitris Balis (Aristotle University of Thessaloniki)
Global comparisons of total O <sub>3</sub> columns from SCIAMACHY retrieved with Weighting Function DOAS (WFDAS) Algorithm to OMI, GOME WFDAS and ground-based measurements		Astrid Bracher (University of Bremen)
The evaluation of SCIAMACHY CO and CH <sub>4</sub> scientific data products, using ground-based FTIR measurements		Bart Dils (Belgian Institute for Space Aeronomy)
The DCFI-ISAC MIPAS database: 2-D routine analysis of MIPAS observations		Bianca Maria Dinelli (ISAC - CNR)
Laser methods for the accurate calibration of satellite-derived aerosol and water vapor		Luca Fiorani (ENEA)
Validation of UV and Ozone EO based data used in PROMOTE/MEDSUN service, by means of on-ground measurements		Fabrizio Flore (Flyby srl)
Ten years of NO <sub>2</sub> comparisons between ground-based SAOZ and satellite instruments (Gome, Sciamachy, OMI)		Florence Goutail (CNRS)
BrO Profiling from Ground-based DOAS Observations: New Tool for the ENVISAT/SCIAMACHY Validation		Francois Hendrick (Belgian Institute for Space Aeronomy (IASB-BIRA))

Validation of the ENVISAT synergetic aerosol retrieval	Thomas Holzer-Popp (DLR)
Comparisons of MIPAS V4.61 and Odin SMR V1.2 ozone data	Ashley Jones (Chalmers Tekniska Högskola)
Results from the Canadian Arctic Validation of ACE Campaigns from 2004 to 2006	Tobias Kerzenmacher (University of Toronto)
MIPAS Pointing assessment	Michael Kiefer (IMK Karlsruhe)
A comparison of CMAX-DOAS measurements and satellite retrievals of NO <sub>2</sub> in an urban environment.	Louisa Kramer (EOS)
GOME: scan-mirror degradation correction	J.M. Krijger (SRON)
Comparison of the Ozone Vertical Profiles from the Dobson Umkehr Measurements and the ECC Soundings in Poland with the EOS-MLS (on the Aura Spacecraft) Overpasses, 2004-2005.	Janusz Krzyściń (Institute of Geophysics, Polish Academy of Sciences)
Intercomparison of Global Total Ozone Measurements Retrieved from ENVISAT/SCIAMACHY Using Different State-of-the-art Algorithms	Christophe Lerot (Belgian Institute for Space Aeronomy (BIRA-IASB))
Validation of the chemistry-transport model MOCAGE using satellite observations	Maud Martet (CNRM Météo France)
SCIAMACHY Light Path Monitoring Results	Stefan Noël (IFE/IUP, University of Bremen)
Overview of SCIAMACHY level 2 data quality	Ankie Piters (KNMI)
Validation of OMI Ground UV-Products	Erich Putz (University of Graz)
Multi-technique comparison of MIPAS O <sub>3</sub> measurements with correlative data obtained by FIR-FTS measurements during the ENVISAT stratospheric aircraft and balloon campaigns (ESABC)	Gianluca Redaelli (University of L'Aquila)
Geophysical validation of temperature retrieved by the ESA Level 2 processor from MIPAS/ENVISAT measurements	Marco Ridolfi (Università di Bologna)
Two years of SCIAMACHY measurements: intercomparison of methane total columns from the 1.65 and 2.3-micrometer windows	Hans Schrijver (SRON Netherlands Institute for Space Research)
Inter-comparison on the influence of different cloud parameter algorithms for the derivation of O <sub>3</sub> and NO <sub>2</sub> vertical column densities from SCIAMACHY nadir back-scattered observations	Thomas Schroeder (German Aerospace Center)
MIPAS Data Quality - Lessons Learned	Gottfried Schwarz (DLR)
Validation of 'cloud-free' tropical UTLS MIPAS ozone and water vapour.	Harjinder Sembhi (University of Leicester)
Long Term Monitoring of GOME/ERS-2 Calibration Parameters	Sander Slijkhuis (German Aerospace Centre)
A new Tool for SCIAMACHY level 1b to 1c processing	Sander Slijkhuis (German Aerospace Centre)
Improvements of GDP Level 0-1 Processing software in the framework of CHEOPS-GOME	Sander Slijkhuis (German Aerospace Centre)
Preliminary validation results of the OMI O <sub>2</sub> -O <sub>2</sub> cloud product	Maarten Sneep (KNMI)
Validation of the GOMOS high-resolution temperature product (HRTP) using lidar	Kerstin Stebel (Norwegian Institute for Air Research)
Validation of IMK Ozone Profiles from MIPAS-Envisat	Tilman Steck (Forschungszentrum Karlsruhe)
Comparison of three simplified algorithms for atmospheric corrections of MERIS data over land	Juergen Telaar (University of Stuttgart)
SCIAMACHY radiometric calibration	Lieuwe Tilstra (Royal Netherlands Meteorological Institute (KNMI))
OMI in-flight wavelength calibration and the solar reference spectrum	Robert Voors (KNMI)
<b>Posters: Retrieval Algorithms</b>	
Retrieving the Velocities of Motion of Air Masses from Digital Images of Clouds	Dimitar Bakalov (Institute for Nuclear Research and Nuclear Energy)
Evidence for Solar Signals in the Mesopause Temperature Variability above a Midlatitude Station in Europe	Michael Bittner (DLR)

Regriding of remote sensing retrievals: formalism and application to GOME vs Microwave ozone profile comparison	Yasmine Calisesi (International Space Science Institute)
A proposed algorithm for line-of-sight wind retrieval from MIPAS level 1 spectra	Claude Camy-Peyret (LPMA)
The Retrieval Algorithm of the SCIAMACHY Limb Processor Version 3.0	Adrian Doicu (German Aerospace Center)
Uncertain Model Parameters for SCIAMACHY Limb Retrieval	Adrian Doicu (German Aerospace Center)
Odin-SMR observations of the tropical upper troposphere	Patrick Eriksson (Chalmers University of Technology)
Temperature Measurements in the Mesopause Region (~87 km) on board of RV Polarstern from 54°N to 34°S (ANT XXIII/1)	Kathrin Hoepfner (German Aerospace Center (DLR-DFD))
ACE retrievals using Atmosphit, a user friendly fitting software based on the optimal estimation method.	Daniel Hurtmans (Universite Libre de Bruxelles)
On The Selection Of Input Measurements For Neural Network Based Retrieval Algorithms	Michele Federico Iapaolo (Tor Vergata University)
New Global Static and Dynamic Ozone Profile Climatology - Validation, Comparison -	Jasmine Kaptur (Center for Solar Energy & Hydrogen Research (ZSW))
Tropospheric and stratospheric BrO and NO <sub>2</sub> columns derived by use of satellite observations and 3D CTM FinROSE	Piia Post (Univesity of Tartu)
MIPAS Reference Atmospheres	John Remedios (University of Leicester)
Bending Angle and Temperature Profiles from GOMOS in Comparison to Champ and Ecmwf Analysis Data	Christian Retscher (ESA/ESRIN)
Retrieval of ozone concentration profiles from SCIAMACHY limb scatter measurements in the Hartley bands: Technique and applications	Guenter Rohen (University of Bremen)
Recent Advances in SCIAMACHY Near Infrared Nadir Level 2 Algorithm Development	Franz Schreier (DLR German Aerospace Center)
Parameterization of internal gravity waves and turbulence in the stratosphere using scintillation measurements by GOMOS on Envisat	Viktoria Sofieva (Finnish Meteorological Istitute)
Self-consistency analysis of MIPAS data using the trajectory hunting technique (THT)	Antonella Taddei (University of L'Aquila)
Providing convenient data services to the Atmospheric Science community	Richard van Hees (SRON)
The Major Revision of the SCIAMACHY Operational L1b-2 Off-line Data Processor	Albrecht von Bargaen (German Aerospace Center)
Characterization of vegetation type using DOAS satellite retrievals	Thomas Wagner (Uni-Heidelberg)
Nonlinear Resonant Wave-Wave Interaction (Triad): Case Studies Based on Rocket and Satellite Data	Sabine Wuest (German Aerospace Center (DLR-DFD))
Nighttime NO <sub>x</sub> from SCIAMACHY lunar occultation measurements	Leonard K. Amekudzi (University of Bremen)
SCIAMACHY solar occultation: Ozone and NO <sub>2</sub> profiles 2003-2005	Klaus Bramstedt (University Bremen)
DOAS Retrieval of Glyoxal from space	Steffen Beirle (Universität Heidelberg)
Carbon monoxide, methane and carbon dioxide retrieved from SCIAMACHY near-infrared nadir observations using WFM-DOAS	Michael Buchwitz (University of Bremen FB1)
A simplified forward model of limb infrared emission spectra in a two-dimensional atmosphere	Coralie De Clercq (Belgian Institute for Space Aeronomy (IASB-BIRA))
Retrieval of Formaldehyde Columns from GOME as Part of the GSE Promote and Comparison with 3d-CTM Calculations	Isabelle De Smedt (BIRA-IASB)
Carbon Monoxide Measurements from MIPAS on Envisat	Bernd Funke (Instituto de Astrofisica de Andalucia, CSIC)
Downward Transport of Upper Atmospheric NO <sub>x</sub> in the Polar Winters During 2002 and 2003	Bernd Funke (Instituto de Astrofisica de Andalucia, CSIC)
Retrieval of peroxyacetylnitrate (PAN) in the upper troposphere from MIPAS level-1B spectra	Norbert Glatthor (Forschungszentrum

	Karlsruhe)
NO2 Total and Tropospheric Vertical Column Densities from OMI on EOS Aura	James Gleason (NASA Goddard Space Flight Center)
Determining Tropospheric Composition from Satellite Measurements	Lara Gunn (University of Leeds)
Spatial analysis of Anthropogenic SO2 emissions monitored by GOME on board ERS-2	Muhammad fahim Khokhar (IUP)
Effect of Forest Fires on the air quality in Seoul from MOPITT measurements	Jhoon Kim (Yonsei University)
SCIAMACHY Limb Measurements of NO2, BrO and OClO	Sven Kuehl (Heidelberg University)
Composition Changes Caused by the 2003 Solar Storm: MIPAS Measurements and Model Simulations	Manuel Lopez-Puertas (Instituto de Astrofisica de Andalucia, CSIC)
Teleconnections between El Niño event and Tropospheric Trace Gases over Indonesia	Diego Loyola (DLR)
Isoprene and Biomass Burning Emissions from Satellite Observations: Synergistic Use of HCHO and NO2 Trace Gas Measurements	Thierry Marbach (Environmental Physics Heidelberg)
GOME and SCIAMACHY Global Water Vapour Columns	Stefan Noël (IFE/IUP, University of Bremen)
Transport studies in the stratosphere using MIPAS observations	Yvan Orsolini (NILU)
Monitoring of sulphur dioxide emissions from satellite as part of GSE PROMOTE	Jos van Geffen (BIRA-IASB)
Tropospheric NO2 Column and Aerosol Optical Properties from SCIAMACHY in the Northern Italy	Andrea Petritoli (CNR)
Carbon tetrafluoride (CF4) from MIPAS measurements	Chiara Piccolo (University of Oxford)
Vector spherical radiative transfer model MCC++: linearization with respect to BRDF surface properties	Oleg Postlyakov (A.M. Obukhov Institute of Atmospheric Physics)
Ozone loss in the Arctic stratosphere over Kiruna, Sweden, during winter/spring 2005/06	Uwe Raffalski (Swedish Institute of Space Physics)
Observations of Energetic Particle Effects on the Stratosphere	Annika Seppälä (Finnish Meteorological Institute)
Measurement of mesospheric constituents from SCIAMACHY limb measurements	Miriam Sinnhuber (University of Bremen)
Towards a climatology of stratospheric bromine monoxide from SCIAMACHY limb observations	Bjoern-Martin Sinnhuber (University of Bremen)
Tomographic Retrieval of MIPAS Measurements in the UTLS Region	Tilman Steck (Forschungszentrum Karlsruhe)
Enhanced upper stratospheric HNO3 during Antarctic winter 2003 and Arctic winter 2003/2004	Gabriele P. Stiller (Forschungszentrum / University Karlsruhe)
Global distributions of HO2NO2 as observed by MIPAS	Gabriele P. Stiller (Forschungszentrum / University Karlsruhe)
Mean age of stratospheric air as derived from MIPAS SF6 distributions	Gabriele P. Stiller (Forschungszentrum / University Karlsruhe)
Retrieval of BrO Columns from SCIAMACHY and their Validation Using Ground-based DOAS Measurements	Nicolas Theys (BIRA-IASB)
Monitoring volcanic activity from space: Retrieval of sulphur dioxide plumes from ERS-2/GOME backscatter data	Werner Thomas (Deutscher Wetterdienst (DWD))
Simulation and retrieval of atmospheric spectra using ASIMUT	Ann C Vandaele (Belgian Inst for Space Aeronomy)
MIPAS HOCl measurements	Thomas von Clarmann (Forschungszentrum Karlsruhe / Universitaet Karlsruhe)
Southern hemispheric biomass burning as seen by MIPAS	Thomas von Clarmann (Forschungszentrum Karlsruhe / Universitaet Karlsruhe)

Monitoring of the Stratosphere with SCIAMACHY Measurements of Limb-Scattered Solar Radiation	Christian von Savigny (University of Bremen)
Measurement of NOx gases using MIPAS-ENVISAT	Joanne Walker (University of Oxford)
Impact of effective cloud fraction on tropospheric NO2 retrieval	Ping Wang (Royal Netherlands Meteorological Institute (KNMI) )
Satellite Observations of Trace Gas Enhancements in January 2005	Claire Waymark (University of Oxford)
Weighting function DOAS total ozone from GOME and SCIAMACHY during the last decade	Mark Weber (University of Bremen FB1)
Distributions of nitric acid in the troposphere and the stratosphere	Catherine Wespes (Universite Libre de Bruxelles)
The retrieval of oxygenated volatile organic compounds by remote sensing techniques	Folkard Wittrock (University of Bremen)
<b>Posters: Aerosols/Clouds/UV</b>	
Optical Thickness of Winter Clouds from Ground-based Visible Images	Kalinka Bakalova (Solar-Terrestrial Influences Laboratory, BAS)
GOME-MERIS cloud products inter-comparison on global scale	Stefano Casadio (SERCO)
Satellite on-board temperatures: proxy measurements of Earth's climate change?	Stefano Casadio (SERCO)
Spectral analyses of desert dust and biomass burning aerosol scenes	Martin de Graaf (Royal Netherlands Meteorological Institute (KNMI))
Systematic conversion of satellite AOD into near-surface mass concentrations	Thomas Holzer-Popp (DLR)
Cloud Parameter Retrieval from MIPAS Level 1B Data	Jane Hurley (University of Oxford)
Ecological study of the aerosol optical characteristics and ozone concentration using lidar, radiometer and ozonemeter	Ilko Iliev (Bulgarian Academy of Sciences)
Antarctic clouds from below and above	Amelie Kirchgaessner (British Antarctic Survey)
The SCIAMACHY cloud products derived using the semi-analytical cloud retrieval algorithm	Alexander Kokhanovsky (University of Bremen)
Aerosol characterization over Northern Greece; aerosol loading derived from satellite observations and ground-based measurements	MariLiza Koukouli (Laboratory of Atmospheric Physics)
A cloud climatology based on GOME	Diego Loyola (DLR)
Aerosol Optical Depth Retrieval over Land using Meteosat-8 SEVIRI Data	Christoph Popp (University of Berne)
Improvement of the FRESCO cloud algorithm for GOME and SCIAMACHY	Ping Wang (Royal Netherlands Meteorological Institute (KNMI))
<b>Posters: Data Assimilation</b>	
Multi-year stratospheric and tropospheric ozone record by assimilating ERS2-GOME observations	Thilo Erbertseder (DLR)
Towards Operational Data Assimilation of Satellite-based Aerosol Optical Depth and Type Observations in a Chemical Transport Model	Marion Schroedter-Homscheidt (Deutsches Zentrum für Luft-und Raumfahrt (DLR))
Four dimensional variational assimilation of MIPAS stratospheric trace gas observations into the SACADA global chemistry circulation model	Jörg Schwinger (University of Cologne)
<b>Posters: Applications</b>	
SCIAMACHY 4 years in space: Achievements, Data Usage and Outlook for the next 4 years	Heinrich Bovensmann (University of Bremen, FB 1)
Application Research and Development for Atmospheric Chemistry Products	Lawrence Flynn (USDOC)
DUE GlobAEROSOL: Building components for air pollution and health monitoring services	Celestino Gomez Cid (GMV, SA)
The NorSEN network: Use of ENVISAT derived and ground-based aerosol information	Georg Hansen (Norwegian Institute for Air Research)
Radiometer-based Estimation of the Atmospheric Optical Thickness	Vassilia Karathanassi (National Technical University)



		of Athens)
IGACO-O3: The First Step in Implementing IGACO		Anssi Mälkki (Finnish Meteorological Institute)
Satellite Application Facility on Ozone and Atmospheric Chemistry Monitoring		Tarja Riihisaari (Finnish Meteorological Institute)
Using GRID services for Sciamachy data sharing and processing in NL-SCIA-DC		Wim Som de Cerff (KNMI)
Modeling CO2 sinks and sources of European land vegetation using remote sensing data		Klaus Wisskirchen (DLR)

## Day 4, Thursday 11 May 2006

<b>Aerosols/Clouds/UV</b>		<b>Chair: K. Chance and J. Staehelin</b>
08:30-08:50	GlobAEROSOL from Earth Observation - aerosol maps from (A)ATSR and SEVIRI.	Elisa Carboni (University of Oxford)
08:50-09:10	SCIAMACHY TOA reflectance correction effects on Aerosol Optical Depth retrieval	Walter Di Nicolantonio (Carlo Gavazzi Space c/o ISAC-CNR)
09:10-09:30	Aerosol Products from the Aura-OMI Sensor	Omar Torres (University of Maryland, Baltimore County)
09:30-09:50	Variability and trends in global cloud parameters from Oxygen A-band measurements by GOME and SCIAMACHY	Piet Stammes (KNMI)
09:50-10:10	MIPAS discovers Antarctic nitric acid trihydrate (NAT) polar stratospheric cloud (PSC) belt	Michael Hoepfner (Forschungszentrum Karlsruhe)
10:10-10:30	Cloud retrieval from SCIAMACHY using broad band spectrometers and absorptions of O2 and O4	Michael Grzegorski (University of Heidelberg)
10.30-11.00	<i>Coffee Break</i>	
<b>11:00-11:30</b>	<b>Three years of ENVISAT synergetic aerosol retrieval</b>	<b>Thomas Holzer-Popp (DLR)</b>
11:30-11:50	Stratospheric aerosols and PSCs as observed by GOMOS on Envisat: results for the period 2002-2005.	Filip Vanhellemont (Belgian Institute for Space Aeronomy)
11:50-12:10	Retrieval of Cloud Fraction and Pressure from the Ozone Monitoring Instrument (OMI)	Pepijn Veefkind (KNMI)
12:10-12:30	Retrieval of cloud fraction, optical thickness and top-height from GOME and SCIAMACHY	Bastiaan van Diedenhoven (SRON Netherlands Institute for Space Research)
12:30-12:50	Probing internal cloud properties from space	Thomas Wagner (Uni-Heidelberg)
12:50-13:10	Surface UV irradiance from OMI on EOS-Aura	Aapo Tanskanen (Finnish Meteorological Institute)
13:10-13:30	Solar variability measured by GOME and SCIAMACHY in the UV/visible/NIR spectral range (1995-present)	Mark Weber (University of Bremen FB1)
13.30-13.45	Discussion on Aerosol/Clouds/UV	
13.45-14.40	<i>Lunch Break</i>	
<b>Data Assimilation</b>		<b>Chair: B. Kerridge and H. Kelder</b>
<b>14:40-15:10</b>	<b>The ASSET intercomparison project</b>	<b>William Lahoz (DARC)</b>
15:10-15:30	Ozone data assimilation of GOME, SCIAMACHY and OMI measurements	Henk Eskes (KNMI)
15:30-15:50	Simultaneous assimilation of ENVISAT/MIPAS and ODIN/SMR ozone profile into a chemistry transport model	Sebastien Massart (CERFACS)
15:50-16:10	Variational assimilation of combined satellite retrieved and in situ aerosol data in an advanced chemistry transport model	Lars Peter Nieradzick (RIU - University of Cologne)
16.10-16.30	<i>Coffee Break</i>	
<b>Applications</b>		<b>Chair: B. Kerridge and H. Kelder</b>
16:30-16:50	Towards a robust estimate of the global lightning nitrogen oxides source using in situ and remote sensing data and model results	Ulrich Schumann (DLR)



16:50-17:10	Regional air quality forecasting over Greece within PROMOTE	Dimitrios Melas (Aristotle University of Thessaloniki)
17:10-17:30	Gaseous and Particle Emissions of International Shipping as seen by Satellites	Heinrich Bovensmann (University of Bremen, FB 1)
17:30-17:50	Atmospheric applications on GRID with a focus on GOMOS and MIPAS	Christian Retscher (ESA/ESRIN)
17:50-18:10	Use of atmospheric remote sensing for solar energy purposes: Experiences made in the ENVISOLAR project	Marion Schroedter-Homscheidt (Deutsches Zentrum für Luft-und Raumfahrt (DLR))
18.10-18.30	<i>Discussion on Data Assimilation/Applications</i>	

## Day 5, Friday 12 May 2006

<b>Future Missions</b>		<b>Chair: P. Levelt and M. Bittner</b>
8:30-8:50	Possible Future Atmospheric Earth Explorer Missions	Joerg Langen (ESA-ESTEC)
8:50-9:10	Definition of Future Operational Atmospheric Composition Monitoring Satellite Missions: Final Results of the CAPACITY study	Hennie Kelder (KNMI)
9:10-9:30	GOME-2 on MetOp	Rosemary Munro (EUMETSAT)
9:30-9:50	IASI instrument performances just before the launch of MetOp	Claude Camy-Peyret (CNRS and UPMC)
9:50-10:10	Future NASA Atmospheric Missions	James Gleason (NASA Goddard Space Flight Center)
10.10-10.30	Discussion on Future Missions	
10.30-11.00	<i>Coffee</i>	
<b>Closing Session</b>		<b>Chair: Y.-L. Desnos</b>
11.00-11.20	Report on existing Instruments and Data Processing/Quality	E. Kyrola and P. Bernath
11.20-11.40	Report on Trace Gases in the Stratosphere	B. Carli and J.-M. Flaud
11.40-12.00	Report on Trace Gases in the Troposphere/Air Quality	J. Burrows and H. Fischer
12.00-12.20	Report on Aerosol/Clouds/UV	K. Chance and J. Staehelin
12.20-12.40	Report on Data Assimilation/Applications	B. Kerridge and H. Kelder
12.40-13.00	Report on Future Missions	P. Levelt and M. Bittner
13.00-13.20	Discussion	
13:20-13:30	Conclusion	C. Zehner