

Poster Presentations

- 1 Volcanic ash retrievals using ORAC and satellite imager measurements in the visible and IR**
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- 2 Improvements of the MPI-C water vapour retrieval in the red spectral rang**
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- 3 The vertical distribution of volcanic SO₂ plumes measured by IASI**
Carboni, Elisa (1); Grainger, Roy (1); Mather, Tamsin A. (2); Pyle, David M. (2); Smith, Andrew (1); Dudhia, Anu (1); Thomas, Gareth (3); Siddans, Richard (3); Koukouli, Mariliza (4); Balis, Dimitris (4)
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- 4 5 years of GOSAT target mode observations of volcanic CO₂ emissions, and first OCO₂ data**
Schwandner, Florian M. (1); Nguyen, Hai (1); Kataoka, Fumie (2); Kuze, Akihiko (3); Shiomi, Kei (3); Carn, Simon A. (4); Goto, Naoki (3)
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- 5 Tropical Upper Tropospheric Ozone Volume Mixing Ratios Retrieved using the Cloud Slicing Method: SCIATRAN/WFDOAS Sensitivity Studies and Ozone Sonde Comparisons**
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University of Bremen, Germany
- 6 Extension of the ESA CCI Total Ozone Climate Data Record with the Application of the GODFITv3 Algorithm to OMI Observations**
Lerot, Christophe (1); Danckaert, Thomas (1); Van Roozendaal, Michel (1); Spurr, Robert (2); Loyola, Diego (3); Coldewey-Egbers, Melanie (3); Koukouli, MariLiza (4); Balis, Dimitris (4); Zyrichidou, Irene (4); Lambert, Jean-Christopher (1); Granville, José (1); Goutail, Florence (5); Pommereau, Jean-Pierre (5); Zehner, Claus (6)
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- 7 Validation of CO₂ Retrievals from GOSAT SWIR TANSO-FTS data, and Evaluation of Advanced spectral SWIR/TIR Synergistic Methodologies for Lowermost Tropospheric CO₂ Retrieval.**
LEZEAUX, Olivier (1); CAMY-PEYRET, Claude (2); BUREAU, Jérôme (3); PAYAN, Sébastien (3); DUFOUR, Emmanuel (1); PRUNET, Pascal (1)
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- 8 GOME/ERS-2: new homogeneous Level 1b data from an old instrument**
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DLR-IMF, Germany
- 9 CCI-Ozone Fundamental Climate Data Records: Evaluation of compliance with GCOS requirements and research needs**
Lambert, Jean-Christopher (1); Balis, Dimitris (2); Goutail, Florence (3); Granville, José (1); Hubert, Daan (1); Keppens, Arno (1); Koukouli, MariLiza (2); Laeng, Alexandra (4); Pommereau, Jean-Pierre (3); Rahpoe, Nabiz (5); Sofieva, Viktoria (6); Braesicke, Peter (4); Dameris, Martin (7); van Weele, Michiel (8); Coheur, Pierre-François (9); Lerot, Christophe (1); Loyola, Diego (7); Siddans, Richard (10); van der A, Ronald (8); Van Roozendaal, Michel (1); Weber, Mark (5); Zehner, Claus (11)
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- 10 5 Years of GOSAT Column Averaged XCO₂ and XCH₄ Observations From the UoL Full Physics Optimal Estimation Retrieval**
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University of Leicester, United Kingdom
- 11 HDO/H₂O Retrievals from ENVISAT to Sentinel-5P**
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- 12 Ozone_CCI: Geophysical Validation of uncertainties of ozone vertical profiles**
Laeng, Alexandra; Sofieva, V.; von Clarmann, T.; Walker, K.A.; Rozanov, A.; Weber, M.; Rahpoe, N.; Degenstein, D.; Roth, C.; Urban, J.; Clerbaux, C.; Coheur, P.; Hadji-Lazaro, J.; Zehner, Claus
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- 13 Airborne Gimballed Limb Observer for Radiance Imaging of the Atmosphere (GLORIA) data for Sentinel 5P validation**

- Kaufmann, Martin (1); Hoepfner, Michael (2); Ungermann, Joern (1); Friedl-Vallon, Felix (2); Blank, Joerg (3); Kleinert, Anne (2); Preusse, Peter (1); Spang, Reinhold (1); Mueller, Rolf (1); Olschewski, Friedhelm (4); Krisch, Isabell (1); Orphal, Johannes (2); Riese, Martin (1) 1: Research Centre Jülich, Germany; 2: Karlsruhe Institute of Technology, Germany; 3: Google Inc., Ireland; 4: Wuppertal University, Germany
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- 15 Calibration and monitoring of an operational UVN mission: Lessons learned from 8 years of GOME-2 operations on Metop.**
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- 16 Mapping NO_x sources on high spatial resolution by combined measurements from OMI and GOME-2 narrow swath mode**
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- 17 Validation of Satellite AOD Uncertainties**
Stebel, Kerstin (1); Povey, Adam (2); North, Peter (3); Heckel, Andreas (3); Kolmonen, Pekka (4); de Leeuw, Gerrit (4); Holzer-Popp, Thomas (5); Aerosol_cci, Team (5) 1: Norwegian Institute for Air Research (NILU), Department Atmospheric and Climate Research, PO Box Box 100 NO-2027 Kjeller, Norway; 2: Atmospheric, Oceanic & Planetary Physics, Clarendon Laboratory, Parks Road, Oxford OX1 3PU, UK; 3: Global Environmental Modelling and Earth Observation (GEMEO), Department of Geography, College of Science, Swansea University, Singleton Park, Swansea SA2 8PP, UK; 4: Finnish Meteorological Institute (FMI), Erik Palmenin Aukio 1, P.O. Box 501, FI-00101 Helsinki, Finland; 5: DLR German Aerospace Center, German Remote Sensing Data Center (DFD), D-82234 Oberpfaffenhofen, Germany
- 18 microCATS – A Canadian Follow-On to the Still Operational OSIRIS Instrument**
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- 19 OMI Total Ozone Column Product validated against UVMFR retrievals**
Raptis, Panagiotis Ioannis (1); Kazadzis, Stelios (1,2); Eleftheratos, Kostas (3); Kosmopoulos, Panagiotis (1); Amiridis, Vassilis (4) 1: Institute for Environmental Research and Sustainable Development (IERSD), National Observatory of Athens (NOA), Metaxa & Vas Pavlou, Penteli, 15236, Athens, Greece; 2: Physikalisch-Meteorologisches Observatorium Davos-WRC, World Optical depth Research and Calibration Center, Dorfstrasse 33, 7260 Davos Dorf, Switzerland; 3: Faculty of Geology and Geoenvironment, University of Athens, Athens, Greece; 4: Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS), National Observatory of Athens (NOA), Athens, Greece
- 20 Closing the Error Budget of Atmospheric Data Comparisons: An Essential Prerequisite to Accurate and Informed Satellite Validation**
Verhoelst, Tjil; Granville, José; Hubert, Daan; Keppens, Arno; Lambert, Jean-Christopher Belgian Institute for Space Aeronomy (BIRA/IASB), Belgium
- 21 Gravity Waves Resolved by the High Resolution ECMWF Analysis Data**
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- 22 Sentinel-5 Precursor NO₂ and HCHO validation using NDACC and complementary FTIR and UV-Vis DOAS systems**
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- 23 The BESD Algorithm for CO and CH₄ Retrieval from Sentinel-5 Precursor and Comparison with the Operational Prototype Retrieval Algorithms**
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- 24 The Role of Vicarious Calibration in the OCO-2 Inflight Calibration Program**
Schwandner, Florian M.; Bruegge, Carol; Pollock, Randy; Lee, Richard; Rosenberg, Robert Jet Propulsion Laboratory, NASA, United States of America
- 25 Validation and Alternative Retrievals of GOMOS Ozone Profiles in the UTLS Altitude Region**
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- 26 Assimilating Volcanic SO₂ Satellite Data in the Copernicus Atmosphere Monitoring Service Global Data Assimilation System**
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- 27 Remote Sensing of Stratospheric Trace Gases by TELIS**
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- 28 Investigation of rain-induced emission pulses of NO_x and HCHO from soils as viewed by satellite sensors**
Zörner, Jan (1); Penning de Vries, Marloes (1); Beirle, Steffen (1); Veres, Patrick R. (1,2); Williams, Jonathan (1); Wagner, Thomas (1) 1: Max Planck Institute for Chemistry, Germany; 2: Chemical Sciences Division, NOAA Earth System Research Laboratory and Cooperative Institute for Research in Environmental Sciences, Boulder, CO, USA
- 29 The Multi-TASTE validation system: Tasting the evolution of reactive and greenhouse gas data products from Envisat and Third Party Missions**

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- 30 Validation of the new additions to the O³-CCI Multi-Sensor level-2 Total Ozone Climate Data Record.**
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- 31 Operational aerosol products for Sentinel-5 Precursor: Aerosol Layer Height and UV Aerosol Index**
Sanders, A.F.J.; de Haan, J.F.; Sneep, M.; Stein Zweers, D.C.; Apituley, A.; Stammes, P.; Tilstra, G.; Tuinder, O.; Levelt, P.F.; Veeffkind, J.P. Royal Netherlands Meteorological Institute (KNMI), Netherlands, The
- 32 Parametrization of Surface Albedo for Nadir Aerosol Retrieval SYNAER**
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- 33 Angle Dependency of UV Aerosol Index and Sensitivity to SO² – Preparations for the TROPOMI Mission**
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- 34 Sagi, Kazutoshi; Murtagh, Donal Chalmers University of Technology, Sweden**
- The Technology and Atmospheric Mission Platform (TAMP) Project**
- 35 Natali, Stefano (1); Mantovani, Simone (1); Triebnig, Gerhard (2); Hirtl, Marcus (3); Fehr, Thorsten (4) 1: SISTEMA GmbH, Austria; 2: EOX IT Services GmbH, Austria; 3: Zentralanstalt für Meteorologie und Geodynamik, Austria; 4: ESA - ESRIN, Italy**
- 36 Development and verification of SCIAMACHY operational ESA Level 2 version 6/7 products**
Azam, Faiza (1); Noël, Stefan (1); Eichmann, Kai-Uwe (1); Richter, Andreas (1); Wittrock, Folkard (1); Hilboll, Andreas (1); Schönhardt, Anja (1); Buchwitz, Michael (1); Reuter, Maximilian (1); Rozanov, Alexei (1); Bovensmann, Heinrich (1); Burrows, John P. (1); Lerot, Christophe (2); Hubert, Daan (2); Keppens, Arno (2); Theys, Nicolas (2); De Smedt, Isabelle (2); Van Roozendael, Michel (2); Lichtenberg, Guenter (3); Hrechanyy, Serhiy (3); Schreier, Franz (3); Gimeno-Garcia, Sebastian (3); Meringer, Markus (3); Doicu, Adrian (3); Brizzi, Gabriele (4); Dehn, Angelika (5); Fehr, Thorsten (5) 1: Institute of Environmental Physics (IUP), University of Bremen, Bremen, Germany; 2: Belgian Institute for Space Aeronomy (IASB-BIRA), Brussels, Belgium; 3: Remote Sensing Technology Institute (IMF-DLR), German Aerospace Center (DLR), Oberpfaffenhofen, Wessling, Germany; 4: Instrument Data quality Evaluation and Analysis Service (IDEAS), Serco S.p.a, Frascati, Italy; 5: ESA/ESRIN, Frascati, Italy
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Frost, Gregory J. (1); Granier, Claire (1,2,3); Darras, Sabine (4); Doumbia, Thierno (2); Kim, Si-Wan (1,3); Hassler, Birgit (1,3); Sindelarova, Katerina (2); Ryerson, Thomas B. (1); Trainer, Michael (1) 1: NOAA, United States of America; 2: LATMOS/IPSL, France; 3: Cooperative Institute for Research in Environmental Sciences, United States of America; 4: Laboratoire d'Aerologie, France
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- 39 Tropical tropospheric ozone columns from nadir retrievals of GOME, SCIAMACHY and GOME-2**
Leventidou, Elpida (1); Weber, Mark (1); Eichmann, Kai-Uwe (1); Valks, Pieter (2); Ebojje, Felix (1); Burrows, John Phillip (1) 1: University of Bremen, Inst. of Environmental Physics (IUP), Bremen, Germany; 2: German Aerospace Center (DLR), Germany
- 40 Vertical Profiles of Volcanic Ash Aerosols: a Case Study with the Puyehue Cordón Caulle Eruption in June 2011**
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- 41 Cloud Fraction Determination for GOME-2 A/B with OCRA V3.0**
Lutz, Ronny; Gimeno Garcia, Sebastian; Loyola, Diego; Romahn, Fabian German Aerospace Center (DLR), Germany
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- 43 A different way to look at the intercomparison of datasets – illustrated with SCIAMACHY v5.02 versus lidar ozone profiles.**
van Gijssels, Anne (1); Zurita Milla, Raúl (2); Stammes, Piet (1); Godin-Beekmann, Sophie (3); Leblanc, Thierry (4); Marchand, Marion (3); McDermid, Stuart (4); Stebel, Kerstin (5); Steinbrecht, Wolfgang (6); Swart, Daan (7) 1: Royal Netherlands Meteorological Institute (KNMI), De Bilt, the Netherlands; 2: University of Twente, Enschede, the Netherlands; 3: LATMOS IPSL CNRS/UPMC/UVSQ, Paris, France; 4: NASA/JPL/California Institute of Technology, Wrightwood, United States; 5: Norwegian Institute for Air Research (NILU), Oslo, Norway; 6: German Weather Service

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- 44 Hemispheric Distributions and Solar-Induced Variability of NO_y Produced by Energetic Particle Precipitation in 2002-2012 as Measured by MIPAS**
Funke, Bernd (1); López-Puertas, Manuel (1); von Clarmann, Thomas (2); Stiller, Gabriele (2); Holt, Laura (3); Randall, Cora E (3) 1: IAA, CSIC, Spain; 2: KIT, Karlsruhe, Germany; 3: University of Colorado, Boulder, CO, USA
- 45 Retrieval of Tropospheric Columns from Ground-Based MAX-DOAS Measurements Performed in the Greater Area of Thessaloniki and Comparison with Satellite Products**
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- 46 Simulations of 3D Tomographic Measurements of Gravity Waves with the IR Limb Sounder GLORIA**
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- 47 Study of Seasonal and Interannual Variabilities of Tropospheric Ozone and CO over Indian Ocean from 2008 to 2013 with IASI-SOFRID Data**
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- 48 Mesospheric Hydroxyl and Ozone Response to Energetic Electron Precipitation over the Solar Cycle**
Andersson, Monika Ewa (1); Verronen, Pekka T. (1); Rodger, Craig J. (2); Clilverd, Mark A. (3); Seppälä, Annika (1); Wang, Shuhui (4); Carson, Bonar R. (2) 1: Finnish Meteorological Institute, Finland; 2: Department of Physics, University of Otago P.O. Box 56, Dunedin 9016, New Zealand; 3: British Antarctic Survey, NERC, Cambridge, CB3 0ET, UK; 4: Jet Propulsion Laboratory, California Institute of Technology Pasadena, CA, 91109
- 49 SCIAMACHY Operations History and the New Level 1b Product - an Approach for Long-term Data Preservation**
Gottwald, Manfred (1); Krieg, Eckhart (1); Lichtenberg, Guenter (1); Reissig, Katja (1); Noel, Stefan (2); Bramstedt, Klaus (2); Bovensmann, Heinrich (2) 1: German Aerospace Center, Remote Sensing Technology Institute, Germany; 2: IUP/IFE, University of Bremen
- 50 SCIAMACHY: New Level 0-1 Processor and Plans for the Future**
Lichtenberg, Günter (1); Slijkhuis, Sander (1); Aberle, Bernd (1); Scherbakov, Denis (1); Meringer, Markus (1); Noel, Stefan (2); Bramstedt, Klaus (2); Liebing, Patricia (2); Bovensmann, Heinrich (2); Snel, Ralph (3); Krijger, Mathijs (3); van Hees, Richard (3); van der Meer, Pieter (3); Lerot, Christophe (4); Fehr, Thorsten (5); Dehn, Angelika (5); Brizzi, Gabriele (5) 1: German Aerospace Centre (DLR, Germany); 2: Institute of Environmental Physics / Remote Sensing (IUP/IFE), University of Bremen; 3: SRON, Netherlands Institute for Space Research; 4: Belgian Institute for Space Aeronomy (BIRA-IASB); 5: ESA-ESRIN
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Lantzanakis, Giannis (1,2); Mitraka, Zina (2); Chrysoulakis, Nektarios (2) 1: University of Crete, Greece; 2: Foundation for Research and Technology - Hellas (FORTH), Greece
- 52 Towards a Near Operational Validation of IASI level 2 trace gas products**
García, Omaira (1); Schneider, Matthias (2); August, Thomas (3); Hase, Frank (2); Blumenstock, Thomas (2); Sepúlveda, Eliezer (1); Hultberg, Tim (3); Sanromá, María Esther (1); Gómez-Peláez, Ángel (1); Cuevas, Emilio (1); Romero-Campos, Pedro Miguel (1); González, Yenny (4) 1: Agencia Estatal de Meteorología, Spain; 2: Karlsruhe Institute of Technology, Germany; 3: EUMETSAT, Germany; 4: Sieltec Canarias, S.L., Spain
- 53 Using Sentinel 5 precursor Level 2 Data: File Format and Metadata**
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- 54 Remote Sensing of Small Scale Emissions of CO₂ and CH₄ using Airborne Solar Absorption Spectroscopy – the MAMAP Experience**
Bovensmann, Heinrich (1); Gerilowski, Konstantin (1); Krautwurst, Sven (1); Krings, Thomas (1); Buchwitz, Michael (1); Burrows, John P. (1); Neining, Bruno (2); Kolyer, Richard W. (3); Fladland, Matthew (4); Jonsson, Haf (4); Leifer, Ira (5); Schuettemeyer, Dirk (6) 1: University of Bremen, Germany; 2: METAIR AG, Switzerland; 3: Earth Science Division, NASA Ames Research Center (ARC), USA; 4: Center for Interdisciplinary Remotely-Piloted Aircraft Studies (CIRPAS), USA; 5: Bubbleology Research International (BRI), USA; 6: ESA-ESTEC, Mission Science Division, The Netherlands
- 55 Overview of the Atmospheric Composition Sentinel Missions S5P, S4 and S5**
Ingmann, Paul (1); Nett, Herbert (1); Veihelmann, Ben (1); Langen, Joerg (1); Fehr, Thorsten (2) 1: ESA/ESTEC, Noordwijk, The Netherlands; 2: ESA / ESRIN, Frascati, Italy
- 56 A climatology of global aerosol mixtures to support Sentinel-5P and EarthCARE mission applications**
Taylor, Michael (1); Kazadzis, Stelios (1,3); Amiridis, Vassilis (2); Kahn, Ralph A. (4) 1: Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece; 2: Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing, National Observatory of Athens, Greece; 3: Physikalisch-Meteorologisches Observatorium Davos, World Radiation Center, Switzerland; 4: NASA Goddard Space Flight Centre, USA

- 57 **A linear method for the retrieval of sun-induced chlorophyll fluorescence from GOME-2 and SCIAMACHY data**
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- 58 **Applications of Satellite Observations of Tropospheric NO₂ at High Latitudes for Monitoring Air Quality (ILMA): objectives and first result**
Ialongo, Iolanda; Tamminen, Johanna Finnish Meteorological Institute, Finland
- 59 **Satellite & in-situ Information for Advanced Air Quality Forecast Services – SiAIR**
Diamandi, Andrei (1); Dumitrache, Rodica (1); Hirtl, Marcus (2); Mantovani, Simone (3); Natali, Stefano (3); Nicola, Oana (1); Rîstea, Alina (1); Irimescu, Anisoara (1); Craciunescu, Vasile (1) 1: National Meteorological Administration, Romania; 2: Zentralanstalt für Meteorologie und Geodynamik, Austria; 3: SISTEMA GmbH, Austria
- 60 **Tropical Tropospheric Ozone observed from GOME-2 and perspectives for TROPOMI**
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- 61 **Accuracy of OMI Tropospheric NO₂ retrievals in the presence of Aerosols: how good is the Aerosol Correction based on a Cloud Model?**
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- 62 **Evaluation of the effect of strong aerosol loads on satellite retrievals of tropospheric NO₂, SO₂ and HCHO using MAX-DOAS observations in Wuxi, China**
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- 63 **Metop/IASI CH₄ profiles : Retrieval and Validation**
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- 64 **Parallel Retrieval of Aerosol and Cloud**
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- 65 **Stratospheric Ozone Trends Derived From a 30 year Combined SAGE II and OSIRIS Time Series**
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- 66 **Validation of Retrieved Volcanic Ash Properties from the Infrared Atmospheric Sounding Interferometer (IASI)**
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- 67 **Characterization and uncertainty budget of surface-based array spectrometers used for validation of satellite-derived trace gases**
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- 69 **Current status of ENVISAT ozone and temperature profile validation**
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- 70 **The IUP Nadir Ozone Profile Retrieval as a Verification Algorithm for TROPOMI**
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- 71 **SCIAMACHY: Impact of calibration changes on SCIAMACHY CH₄ and CO retrievals** *Lichtenberg, Günter (1); Slijkhuis, Sander (1); Aberle, Bernd (1); Gimeno-Garcia, Sebastian (1); Schreier, Franz (1); Snel, Ralph (2); Krijger, Mathijs (2); van Hees, Richard (2); van der Meer, Pieter (2); Fehr, Thorsten (3); Dehn, Angelika (3); Brizzi, Gabriele (3)* 1: German Aerospace Centre (DLR, Germany); 2: SRON, Netherlands Institute for Space Research; 3: ESA-ESRIN
- 72 **Results from the second SPARC water vapour assessment (WAVAS II) on satellite data quality**
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- 73 **Improved Ozone and Carbon Monoxide Profile Retrievals Using Multispectral Measurements from NASA "A Train", Suomi-NPP, and TROPOMI Satellite Instruments**
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75 SIROCCO, a study on retrievals of CO and CH₄ in the atmospheres of Earth and Mars

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76 Broadband surface solar irradiance derived from satellite measurements of effective cloud fraction

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77 ESA Earth Explorer 8 Candidate Mission CarbonSat: Error Budget for Atmospheric Carbon Dioxide and Methane Retrievals

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78 The operational Near-Real-Time Total Ozone Retrieval Algorithm for GOME-2 on MetOp-A & MetOp-B and perspectives for TROPOMI/S5P

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79 Improved correction for contamination-induced in-flight instrument degradation of SCIAMACHY

Snel, Ralph; Krijger, Matthijs SRON Netherlands Institute for Space Research, Netherlands, The

80 The IGAC/SPARC Chemistry Climate Model Initiative (CCMI): What is it? How can ESA help?

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81 Tropospheric Ozone Monitoring with IASI /MetOP Using a Self-Adapting Regularization Method

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82 Validation of GOME-2A and GOME-2B Ozone Profiles and Tropospheric Ozone Column Products

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83 Assessment of GOMOS stratospheric aerosol extinction coefficients retrieved from the AerGom algorithm using contemporaneous satellite experiments

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84 An Instrument Independent Radiance Soft Calibration as a Tool for the Validation of Measured UV Radiance

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85 Updated HICRU Cloud Fraction Retrieval to Comply with Satellite Instruments Featuring Large Viewing Angles

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86 Validation of SCIAMACHY cloud height products using ground-based Cloudnet observations

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87 A 30 year record of stratospheric aerosol from merged OSIRIS and SAGE II measurements

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88 Carbon dioxide observation from IASI and comparison with TANSO-FTS

Del Bianco, Samuele; Cortesi, Ugo; Gai, Marco; Laurenza, Lucia Maria; Barbara, Flavio Istituto di Fisica Applicata 'Nello Carrara' IFAC-CNR, Firenze, Italy.

89 Energetic Particle Precipitation Indirect Effect During the Arctic Winter 2012/2013: Odin/SMR vs. WACCM-SD

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90 EVDC - ESA Validation Data Centre

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91 Development and characterisation of a state-of-the-art GOME-2 formaldehyde air-mass factor algorithm

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92 Impact of Spectroscopic Line Data on Carbon Monoxide Column Density Retrievals from Shortwave Infrared Nadir Observations

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93 AATSR-based Volcanic Ash Plume Top Height Estimation

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94 East Asian Monsoon and Tropospheric Ozone from IASI/MetOp

BOYNARD, Anne (1); SAFIEDDINE, Sarah (1); COHEUR, Pierre-Francois (2); HURTMANS, Daniel (2); QUENNEHEN, Boris (1); RAUT, Jean-Christophe (1); LAW, Kathy (1); CLERBAUX, Cathy (2) 1: Sorbonne Universités, UPMC Univ. Paris 06; Université Versailles St-Quentin; CNRS/INSU, LATMOS-IPSL, Paris, France; 2: Spectroscopie de l'Atmosphère, Chimie Quantique et Photophysique, Université Libre de Bruxelles (U.L.B.), Brussels, Belgium

95 Evolution of the Chemical Composition of the Atmosphere over the Past Decades: Comparisons between Chemistry-Climate Model Simulations and Satellite Observations

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96 MIPAS vM21 temperatures: Comparison of version vM21 with ACE-FTS, MLS, OSIRIS, SABER, SOFIE and lidar measurements

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97 Combined use of satellite-derived AOT with urban surface morphology and cover to estimate PM10 and PM2.5 concentrations by employing mixed-effects models

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98 Equivalence of Data Fusion and Simultaneous Retrieval

Ceccherini, Simone; Carli, Bruno; Raspollini, Piera Istituto di Fisica Applicata "Nello Carrara" del Consiglio Nazionale delle Ricerche

99 GOMOS Measurements of O³, NO² and NO³ Compared to Model Simulations by Two Versions of the Specified Dynamics WACCM-model

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100 Long-term changes in tropospheric ethane measured by MIPAS

Moore, David P (1,2); Wharton, Samuel (2); Trent, Tim (1,2); Remedios, John (1) 1: NCEO, University of Leicester, United Kingdom; 2: Earth Observation Science Group, Dept. Physics and Astronomy, University of Leicester, United Kingdom

101 Total Column Water Vapour Product from the GOME, SCIAMACHY and GOME-2 Instruments: Comparison with Independent Data Sets

Grossi, Margherita (1); Valks, Pieter (1); Slijkhuis, Sander (1); Loyola, Diego (1); Aberle, Bernd (1); Beirle, Steffen (2); Lampel, Johannes (2); Wagner, Thomas (2) 1: DLR, Germany; 2: MPIC, Germany

102 Stratospheric CH⁴ and CO² Profiles Retrieved with Onion Peeling DOAS from SCIAMACHY Solar Occultation Measurements

Noël, Stefan; Bramstedt, Klaus; Hilker, Michael; Liebing, Patricia; Reuter, Max; Rozanov, Alexei; Bovensmann, Heinrich; Burrows, John P. University of Bremen, Germany

103 Validation of GOMOS High Resolution Temperature Profiles using Wavelet Analysis - Comparison with Thule Lidar Observations

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104 Using Satellite Observations and Models to Understand Processes in the Composition-Climate System: Some Examples

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105 Optimization of Radiative Transfer Model Calculations for the Atmospheric Sentinel Missions

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106 High spatial resolution daily mapping of surface-level NO² using satellite and in-situ measurements

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107 Modelled Ozone Bias near the Stratopause using ESA CCI Limb Ozone Data

Skachko, Sergey; Errera, Quentin; Botek, Edith; Chabrilat, Simon; Christophe, Yves BIRA-IASB, Belgium

SO² plume height retrieval from GOME-2 satellite measurements in support to aviation control.

van Gent, Jeroen; Brenot, Hugues; Theys, Nicolas; Van Roozendaal, Michel BIRA-IASB, Belgium

108 Extreme fast volcanic SO² plume height retrieval from UVN sensors

Loyola, Diego G.; Efremenko, Dmitry S.; Hedelt, Pascal; Pedergnana, Mattia German Aerospace Center (DLR), Remote Sensing Technology Institute, Oberpfaffenhofen, D-82234 Wessling, Germany

109 Improved Pointing Knowledge for SCIAMACHY by Evaluating Solar and Lunar Measurements

Bramstedt, Klaus (1); Gottwald, Manfred (2); Noël, Stefan (1); Stone, Thomas C. (3); Bovensmann, Heinrich (1); Burrows, John P. (1) 1: IUP, University of Bremen, Germany; 2: DLR-IMF, Weßling, Germany; 3: U.S. Geological Survey, Flagstaff, AZ, USA

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- 114 Low latitude seasonal variability of the mesosphere as observed by MIPAS**
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- 115 Stochastic Radiative Transfer and More Accurate Models for the Trace Gas Retrieval under Broken Cloud Conditions**
Doicu, Adrian; Efremenko, Dmitry S.; Loyola, Diego; Trautmann, Thomas Remote Sensing Technology Institute, German Aerospace Centre (DLR e.V.), Germany
- 116 Analysis of Aerosol Properties over Jambi (Indonesia) using Remote Sensing**
Bashir, Iqra; Ali, Muhammad; Tariq, Salman Remote sensing and GIS group, Department of Space Science, University of the Punjab, Pakistan
- 117 Harmonised Validation System for Tropospheric Ozone and Ozone Profile Retrievals from GOME to the Copernicus Sentinels**
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- 118 Monsoon outflow observation in the tropical upper troposphere with the infrared limb imager GLORIA**
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- 120 Tomographic Retrieval for Scattered Light Limb Measurements: Multiple Spectral Fit Windows to Improve the Spatial Resolution**
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- 121 Trace gas column observations from GOME-2**
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- 122 Monitoring volcanic SO₂ emissions using GOME-2/Metop-A & -B**
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- 123 In-flight Spectral Calibration of the APEX Imaging Spectrometer using Fraunhofer Lines**
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- 124 Neural-network Approach to Hyperspectral Data Analysis for Volcanic Ash Clouds Monitoring**
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- 125 Development of a Web GIS Data Visualization Viewer for remote sensing MODIS cloud and aerosol data using OGC standards and Open Source Technologies**
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- 127 Statistical Modelling in Problems of Lidar Remote Sensing of Aerosol Cloudy Atmosphere**
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- 128 Hurricanes and Climate Change: A Case of United Kingdom**
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- 129 Observing Sulphur Dioxide and Sulphate Aerosol in the Stratosphere using MIPAS**
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- 130 Limb-Nadir Matching for Tropospheric NO₂: A New Algorithm in the SCIAMACHY Operational Level 2 Processor**
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131 A Study of Carbonaceous Aggregates: Simplifying the Method of Calculation of Fractal Dimension

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132 Interannual variations in VOC flux estimates inferred from OMI formaldehyde columns through 2005-2013

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133 Methane and carbon dioxide total columns over oceans measured by shortwave infrared satellite sounders

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134 Retrieval of Atmospheric Temperature from Airborne Microwave Radiometer Observations

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135 The ADM-Aeolus mission – Summary of the Science and Cal/Val Workshop held in February 2015

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136 Validation of Thermodynamic Profiles from MIPAS and GOMOS against Radiosondes and Radio Occultation Reference Data

Schwärz, Marc (1); Kirchengast, Gottfried (1); Ladstädter, Florian (1); Scherllin-Pirscher, Barbara (1); Dehn, Angelika (2); Fehr, Thorsten (2); Casadio, Stefano (3) 1: University of Graz, Austria; 2: ESA, Esrin; 3: SERCO SPA, C/O ESA, Esrin