

V. Program Schedule

[POSTER 2]

Date / Time (Mon.) October 4, 2021 / 14:10-15:00 (UTC)

Session Code MON3

Session Chair Mark Weber, Alexander Gruzdev

[MON3_1] 14:10-14:12

Prognostic Ozone for ICON: Enabling UV Forecasts(POF)

Simon Weber¹, Roland Ruhnke¹, Christian Scharun¹, Axel Seifert², and Peter Braesicke¹

¹Karlsruhe Institute of Technology, Germany, ²German Weather Service, Germany

[MON3_2] 14:12-14:14

The Long-Term Historical Ozone Changes Detected in SOCOLv4 Simulations and Observations

Arseniy Karagodin^{1,2}, Eugene Rozanov^{1,2,3}, Timofei Sukhodolov^{1,2,3}, Tatiana Egorova¹, William Ball⁴, and Thomas Peter²

¹PMOD/WRC, Switzerland, ²ETH Zurich, Switzerland, ³St. Petersburg State University, Russia, ⁴TU Delft, The Netherlands

[MON3_3] 14:14-14:16

Comparison of Stratospheric Ozone Trends from Satellite Data and Model Simulations

Kristof Bogнар¹, Doug Degenstein¹, Susann Tegtmeier¹, Adam Bourassa¹, David Plummer², Chris Roth¹, and Daniel Zawada¹

¹University of Saskatchewan, Canada, ²Environment and Climate Change Canada, Canada

[MON3_4] 14:16-14:18

Recent Lower-Stratospheric Ozone Trends in Chemistry Climate Models

Simone Dietmüller¹, Hella Garny^{1,2}, Roland Eichinger^{1,3}, and William Ball⁴

¹DLR, Germany, ²Ludwig Maximilian University of Munich, Germany, ³Charles University, Czech Republic, ⁴TU Delft, The Netherlands

[MON3_5] 14:18-14:20

The Influence of Gravity Waves on Stratospheric Ozone at Low and Middle Latitudes in Summer

Shujie Chang, Yongchi Li, Peng Chen, and Yanzhu Zheng

Guangdong Ocean University, China

[MON3_6] 14:20-14:22

Seasonal and Regional Stratospheric Ozone Trends Evaluated using Merged Satellite Datasets

Viktoria F. Sofieva¹, Monika Szlag¹, Johanna Tamminen¹, Erkki Kyrölä¹, Doug Degenstein², Chris Roth², Daniel Zawada², Alexei Rozanov³, Carlo Arosio³, John P. Burrows³, Mark Weber³, Alexandra Laeng⁴, Gabriele P. Stiller⁴, Thomas von Clarmann⁴, Lucien Froidevaux⁵, Nathaniel Livesey⁵, Sean Davis⁶, Michel van Roozendael⁷, and Christian Retscher⁸

¹Finnish Meteorological Institute, Finland, ²University of Saskatchewan, Canada, ³University of Bremen, Germany, ⁴Institute of Meteorology and Climate Research, Germany, ⁵CalTech, USA, ⁶NOAA, USA, ⁷BIRA-IASB, Belgium, ⁸ESA/ESRIN, Italy

V. Program Schedule

- [MON3_7]** 14:22-14:24
Long-Term Variability (1980-2020) of Total Column Ozone in Northern Hemisphere from the Reanalyses (MSR2, MERRA2, and ERA5), and a Comparison with the Dobson Data Taken at Belsk (51.84N, 20.79E), Poland
Janusz Krzyścin and Bonawentura Rajewska-Więch
Polish Academy of Sciences, Poland
- [MON3_8]** 14:24-14:26
Effects of ECMWF Reanalysis (ERA-Interim and ERA5) Forcing Fields on Stratospheric Ozone in the TOMCAT/SLIMCAT Chemical Transport Model
Yajuan Li¹, Sandip Dhomse^{2,3}, Martyn Chipperfield^{2,3}, Wuhu Feng^{2,4}, Andreas Chrysanthou², and Dong Guo⁵
¹Nanjing Xiaozhuang University, China, ²University of Leeds, UK, ³NCEO, UK, ⁴NCAS, UK, ⁵NUIST, China
- [MON3_9]** 14:26-14:28
Recent Lower Stratospheric Ozone Trends in Satellite Data and Specified Dynamics Model Simulations
Sean M. Davis¹, Nicholas Davis², Karen Rosenlof¹, Pengfei Yu³, and Robert Portmann¹
¹NOAA, USA, ²NCAR, USA, ³Jinan University, China
- [MON3_10]** 14:28-14:30
Influence of Natural Variability and Stratospheric Circulation Changes on Ozone Variability and Trends
Mohamadou MDiallo¹, Felix Ploeger^{1,2}, William T. Ball³, Michaela I. Hegglin⁴, Gabriel Chiodo⁵, and Martin Riese¹
¹Institute of Energy and Climate Research: Stratosphere (IEK-7), Germany, ²University of Wuppertal, Germany, ³TU Delft, The Netherlands, ⁴University of Reading, UK, ⁵ETH Zurich, Switzerland
- [MON3_11]** 14:30-14:32
Trends and Variability of Ozone Total, Stratospheric, and Tropospheric Columns from Long-Term FTIR Measurements of the NDACC Network
Vigouroux, C.¹, Blumenstock, T.², De Mazière, M.¹, Errera, Q.¹, García, O. E.³, Grutter, M.⁴, Hannigan, J.⁵, Hase, F.², Jones, N.⁶, Mahieu, E.⁷, Ortega, I.⁵, Palm, M.⁸, Röhling, A.², Smale, D.⁹, Stremme, W.⁴, Strong, K.¹⁰, Thölix, L.¹¹, Virolainen, Y.¹², and Wizenberg, T.⁹
¹BIRA-IASB, Belgium, ²Institute for Meteorology and Climate Research, Germany, ³Izaña Atmospheric Research Centre, Spain, ⁴UNAM, México, ⁵NCAR, USA, ⁶University of Wollongong, Australia, ⁷University of Liège, Belgium, ⁸University of Bremen, Germany, ⁹NIWA, New Zealand, ¹⁰University of Toronto, Canada, ¹¹Finnish Meteorological Institute, Finland, ¹²Saint Petersburg State University, Russia
- [MON3_12]** 14:32-14:34
DLM Estimation of Long-Term Ozone Trends from Dobson and Brewer Umkehr Profiles
Eliane Maillard Barras¹, Alexander Haefele¹, Achille Jouberton², René Stübi¹, Irina Petropavlovskikh³, Koji Miyagawa⁴, and Martin Stanek⁵
¹MeteoSwiss, Switzerland, ²Swiss Federal Institute for Forest, Snow and Landscape Research, Switzerland, ³CIRES, USA, ⁴NOAA, USA, ⁵Czech Hydrometeorological Institute, Czech Republic

V. Program Schedule

- [MON3_13]** 14:34-14:36
Ozone Trend Analysis from 22-Years of Observations in Natal (5.83°S, 35.20°W), by the Use of Multi-Linear and Empirical Decomposition Methods
Hassan Bencherif¹, Lucas Vaz Peres², Olivier Delage¹, Nelson Bègue¹, Gabriela Dornelles Bittencourt^{1,4}, Maria Paulete Pereira Martins³, Francisco Raimundo da Silva³, Thierry Portafaix¹, and Damaris Kirsch Pinheiro⁴
¹LACy, France, ²UFOPA, Brazil, ³INPE, Brazil, ⁴UFSM, Brazil
- [MON3_14]** 14:36-14:38
Three-Decade Measurements of Vertical Distribution and Column Content of NO₂ at Zvenigorod, Russia: Long-Term Trends and Interannual Variations
Aleksandr N. Gruzdev and Aleksandr S. Elokhov
A. M. Obukhov Institute of Atmospheric Physics, Russia
- [MON3_15]** 14:38-14:40
Total Ozone Trends in East Asia Using Long-Term Satellite and Ground Observations
Daegeun Shin¹, Yong-suk Oh¹, Wonick Seo¹, Chu-Yong Chung¹, and Hi Ku Cho²
¹National Institute of Meteorological Sciences, Republic of Korea, ²Yonsei University, Republic of Korea
- [MON3_16]** 14:40-14:42
Trends and Variations in the Total Ozone Content over the Northern Caucasus
Vladimir V. Savinykh, Nikolai F. Elansky, and Aleksandr N. Gruzdev
Russian Academy of Sciences, Russia
- [MON3_17]** 14:42-14:44
Total Ozone Trends at Northern High Latitudes from Ground-Based Measurements
Leonie Bernet¹, Arne Dahlback², Florence Goutail³, Georg Hansen¹, Yvan Orsolini^{1,4}, Andrea Pazmiño³, and Tove Svendby¹
¹NILU, Norway, ²University of Oslo, Norway, ³LATMOS/IPSL/UVSQ-CNRS, France, ⁴NTNU, Norway
- [MON3_18]** 14:44-14:46
Overview of the Stratospheric O₃ Measurements from IASI (2008-2020): Validation, Variability, Events, Evolution, Recovery and Radiative Effect
Catherine Wespes¹, Daniel Hurtmans¹, Anne Boynard^{2,4}, Sarah Safieddine², Marie Bouillon², Simon Chabrilat³, Stamatia Doniki¹, Cathy Clerbaux^{2,1}, and Pierre-François Coheur¹
¹Université libre de Bruxelles, Belgium, ²Sorbonne Université, France, ³BIRA-IASB, Belgium, ⁴SPASCIA, France
- [MON3_19]** 14:46-14:48
Pattern Analysis of Seven Total Ozone Column Measuring Stations in the Center, Southern of South America and Antarctica
Gerardo Carbajal Benítez¹, Héctor Estevéz², Eduardo Luccini³, Facundo Orte⁵, Héctor Ochoa⁴, Elian Wolfram^{1,5}, María Elea Barlasina¹, Lino Condori¹, and Fernando Nollas¹
¹Servicio Meteorológico Nacional, Argentina, ²UNAM, México, ³CEPROCOR-CONICET, Argentina, ⁴Argentine Antarctic Institute, Argentina, ⁵CEILAP, UNIDEF (CITEDEF-CONICET), Argentina

V. Program Schedule

- [MON3_20]** 14:48-14:50
The Contribution of the Czech Republic to the Detection of the State of the Earth's Ozone Layer and Solar UV-radiation in Antarctica – the Contribution of the Czech Republic to the Vienna Convention and the Montreal Protocol in 2010-2020
Michal Janouch¹, Ladislav Sieger², and Hector Ochoa³
¹Czech Geographical Society, Czech Republic, ²Czech Technical University in Prague, Czech Republic, ³Instituto Antártico Argentino, Argentina
- [MON3_21]** 14:50-14:52
Analysis of the Ozone Transport and Seasonal Variability in the Tropical Tropopause Layer using Reanalysis Data
Hosun Ryu and Joowan Kim
Kongju National University, Republic of Korea
- [MON3_22]** 14:52-14:54
Multi-Level Stratospheric Ozone Variability from SHADOZ Network Data
Marinete da Silva Ferreira¹, David Mendes¹, Lucas Vaz Peres², Ana Caroline Rodrigues Castro², Damaris Kirsch Pinheiro³, Gabriela Dornelles Bittencourt³, Nelson Bègue⁴, Hassan Bencherif⁴, Maria Paulete Pereira Martins⁵, Francisco Raimundo da Silva⁵, Ryan Stauffer⁶, and Anne M. Thompson⁶
¹Federal University of Rio Grande do Norte, Brazil, ²UFOPA, Brazil, ³UFMS, Brazil, ⁴LACy, France, ⁵INPE, Brazil, ⁶NASA, USA
- [MON3_23]** 14:54-14:56
Characteristics of Ozone Profile Distribution over Korean Peninsula during the Asian Summer Monsoon using Multiple Satellite Measurements and Reanalysis Data
Song Eun-Ji¹, Bak Juseon¹, Hyo-Jung Lee¹, Cheol-Hee Kim¹, and Ja-Ho Koo²
¹Pusan National University, Republic of Korea, ²Yonsei University, Republic of Korea
- [MON3_24]** 14:56-14:58
Using Aura Microwave Limb Sounder Measurements to Place Recent Asian Summer Monsoon Seasons into Climatological Context
Michelle L. Santee¹, Gloria L. Manney^{2,3}, Nathaniel J. Livesey¹, Jessica L. Neu¹, Michael J. Schwartz¹, and Luis F. Millán¹
¹CalTech, USA, ²NorthWest Research Associates, USA, ³New Mexico Tech, USA
- [MON3_25]** 14:58-15:00
Lauder BrO Timeseries (1995-2021)
Richard Querel¹, Paul Johnston¹, Martyn Chipperfield², and Francois Hendrick³
¹NIWA, New Zealand, ²University of Leeds, UK, ³BIRA-IASB, Belgium